FEBRUARY 2017

Final Environmental Impact Report

[FINAL EIR]
[STATE CLEARINGHOUSE NO. 2015021014]

for Los Angeles International Airport (LAX) Landside Access Modernization Program

City of Los Angeles
Los Angeles World Airports

Volume 12:

Attachments 1 and 2

Los Angeles World Airports

Attachment 1

Original Comment Letters on the Draft EIR

U.S. Department of Homeland Security
FEMA Region IX
1111 Broadway, Suite 1200
Oakland, CA. 94607-4052

FEMA

October 5, 2016

Evelyn Quintanilla, Chief of Airport Planning
Los Angeles World Airports
P. O. Box 92216
Los Angeles, California 90009-2216

Dear Ms. Quintanilla:

This is in response to your request for comments regarding the Notice of Availability, City of Los Angeles, California – Los Angeles World Airports (LAWA) for the Draft Environmental Impact Report for LAX Landside Access Modernization Project (LAMP).

Please review the current effective countywide Flood Insurance Rate Maps (FIRMs) for the County of Los Angeles (Community Number 065043), Maps revised January 6, 2016 and City of Los Angeles (Community Number 060137), Maps revised September 26, 2008. Please note that the City of Woodland, Yolo County, California is a participant in the National Flood Insurance Program (NFIP). The minimum, basic NFIP floodplain management building requirements are described in Vol. 44 Code of Federal Regulations (44 CFR), Sections 59 through 65.

A summary of these NFIP floodplain management building requirements are as follows:

- All buildings constructed within a riverine floodplain, (i.e., Flood Zones A, AO, AH, AE, and A1 through A30 as delineated on the FIRM), must be elevated so that the lowest floor is at or above the Base Flood Elevation level in accordance with the effective Flood Insurance Rate Map.

- If the area of construction is located within a Regulatory Floodway as delineated on the FIRM, any ***development*** must not increase base flood elevation levels. **The term *development* means any man-made change to improved or unimproved real estate, including but not limited to buildings, other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, and storage of equipment or materials.** A hydrologic and hydraulic analysis must be performed *prior* to the start of development, and must demonstrate that the development would not cause any rise in base flood levels. No rise is permitted within regulatory floodways.

- All buildings constructed within a coastal high hazard area, (any of the "V" Flood Zones as delineated on the FIRM), must be elevated on pilings and columns, so that the lowest horizontal structural member, (excluding the pilings and columns), is elevated to or above the base flood elevation level. In addition, the posts and pilings foundation and the structure attached thereto, is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components.

- Upon completion of any development that changes existing Special Flood Hazard Areas, the NFIP directs all participating communities to submit the appropriate hydrologic and hydraulic data to FEMA for a FIRM revision. In accordance with 44 CFR, Section 65.3, as soon as practicable, but not later than six months after such data becomes available, a community shall notify FEMA of the changes by submitting technical data for a flood map revision. To obtain copies of FEMA's Flood Map Revision Application Packages, please refer to the FEMA website at http://www.fema.gov/business/nfip/forms.shtm.

Please Note:

Many NFIP participating communities have adopted floodplain management building requirements which are more restrictive than the minimum federal standards described in 44 CFR. Please contact the local community's floodplain manager for more information on local floodplain management building requirements. The Los Angeles floodplain manager can be reached by calling Gary L. Moore, City Engineer, at (213) 485-4935. The Los Angeles County floodplain manager can be reached by calling George De La O, Senior Civil Engineer, at (626) 458-7155.

If you have any questions or concerns, please do not hesitate to call Xing Liu of the Mitigation staff at (510) 627-7267.

Sincerely,

Gregor Blackburn, CFM, Branch Chief
Floodplain Management and Insurance Branch

cc:
Gary L. Moore, City Engineer, City of Los Angeles
George De La O, Senior Civil Engineer, Watershed Management Division, Los Angeles County
Garret Tam Sing/Salomon Miranda, State of California, Department of Water Resources,
Southern Region Office
Michael Hornick, NFIP Planner, DHS/FEMA Region IX
Alessandro Amaglio, Environmental Officer, DHS/FEMA Region IX

STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

November 1, 2016

Evelyn Quintanilla
Los Angeles World Airports
One World Way, Suite 218
Los Angeles, CA 90045

Subject: LA Landside Access Modernization Program (LAMP)
SCH#: 2015021014

Dear Evelyn Quintanilla:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on October 31, 2016, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH#	2015021014
Project Title	LA Landside Access Modernization Program (LAMP)
Lead Agency	Los Angeles World Airports
Type	EIR Draft EIR
Description	The LA LAMP consists of several primary components. At the centerpiece is an automated people mover system with 6 stations, which would provide access to the CTA for passengers, employees and other users of LA, 24 hours a day. The APM system would transport passengers between the CTA and the other main components of the Pro ect located east of the CTA, including a state of the art, consolidated rental car facility, two intermodal transportation facilities providing airport parking and pick up and drop off areas outside the CTA for private vehicles and commercial shuttles. In addition, the APM system would include a station at the multi-modal/transit facility at 96th St/Aviation Blvd planned by Metro as a separate and independent pro ect to provide the opportunity for passengers to access the Metro regional rail system.

Lead Agency Contact

Name	Evelyn Quintanilla
Agency	Los Angeles World Airports
Phone	424 646 5186 Fax
email	
Address	One World Way, Suite 218
City	Los Angeles State CA Zip 90045

Project Location

County	Los Angeles
City	Los Angeles, City of
Region	
Lat / Long	33° 56' 39" N / 118° 24' 9" W
Cross Streets	World Way/Sepulveda Blvd, W 96th St/Airport Blvd
Parcel No.	
Township	Range Section Base

Proximity to:

Highways	I-405 and 105
Airports	LAX, Hawthorne
Railways	BNSF, Metro Light Rail
Waterways	Pacific Ocean
Schools	Various
Land Use	

Project Issues	Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Coastal Zone; Drainage/Absorption; Economics/Jobs; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Septic System; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects; Aesthetic/Visual
Reviewing Agencies	Resources Agency; Department of Conservation; Department of Fish and Wildlife, Region 5; Department of Parks and Recreation; Department of Water Resources; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 7; Air Resources Board; Regional Water Quality Control Board, Region 4; Department of Toxic Substances Control; Native American Heritage Commission
Date Received	09/15/2016 Start of Review 09/15/2016 End of Review 10/31/2016

Note: Blanks in data fields result from insufficient information provided by lead agency.

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From: LAX Stakeholder Liaison
To: MARTINEZ-SIDHOM, BRENDA
Subject: FW: LAX-Landside Access Modernization Program - Caltrans Comment Letter
Date: Tuesday, November 15, 2016 3:24:23 PM
Attachments: 2016 11-15 LAX-Landside Access Modernization Program.pdf

From: Lee, Frances M@DOT
Sent: Tuesday, November 15, 2016 3:24:03 PM (UTC-08:00) Pacific Time (US & Canada)
To: LAX Stakeholder Liaison
Cc: Edmonson, Miya R@DOT
Subject: LAX-Landside Access Modernization Program - Caltrans Comment Letter

To whom it may concern:

The original comment letter for the above-mentioned project has been sent to Ms. Evelyn Quintanilla as indicated in the project document. Please find an attached PDF copy of the signed letter.

If you should have any questions, please contact the project coordinator, Miya Edmonson at (213) 897-6596. Thank you.

Best Regards,

Frances Lee
Associate Transportation Planner
Caltrans District 7, Division of Planning - LD-IGR Branch
100 South Main Street, MS#16, Los Angeles, CA 90012
Phone: 213-897-0673 | Fax: 213-897-1337
E-Mail: Frances.Lee@dot.ca.gov

DEPARTMENT OF TRANSPORTATION
DISTRICT 7, OFFICE OF REGIONAL PLANNING
IGR/CEQA BRANCH
100 MAIN STREET, MS # 16
LOS ANGELES, CA 90012-3606
PHONE: (213) 897-0219
FAX: (213) 897-1337

Serious drought
Help save water!

November 15, 2016

Ms. Evelyn Quintanilla
Los Angeles World Airports
1 World Way, Room 218
Los Angeles, Ca 90045

Re: **LAX-Landside Access Modernization Program**
Vic: LA/405/21.175-22.740, LA/1/23.924-31.278
SCH# 2015021014
GTS# LA-2016-00219ME-MND

Dear Ms. Quintanilla:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the proposed Landside Access Modernization Program (LAMP) project. Caltrans would like to thank Los Angeles World Airports (LAWA) staff for the opportunity to collaborate and explore viable methods and alternatives to ensure that traffic relating to this project would be thoroughly evaluated.

LAWA proposes to modernize the Los Angeles International Airport (LAX) to improve passenger quality-of-service and provide world class facilities for its customers. The LAMP project consists of redevelopment of the ground access system to the Airport, which would include a seamless connection to the regional rail and transit system.

Proposed improvements include 1) an Automated People Mover (APM) system with six APM stations connecting the Central Terminal Area (CTA) to new ground transportation facilities; 2) passenger walkway systems connecting the APM stations to passenger terminals or ground transportation facilities; 3) modifications to existing passenger terminals and parking garages within the CTA ; 4) intermodal transportation facilities (ITF) that would provide pick up and drop off areas outside the CTA for airport passengers and commercial shuttles, meet and greet areas, passenger processing facilities, retail, dining options and other amenities, parking, and access to the APM system; 5) Consolidated Rental Car Facility (CONRAC) that would be designed to consolidate car rental agencies in a centralized location with access to the CTA via the APM; 6) roadway improvements designed to improve access to the CTA from the freeway and provide access to the proposed ITFs and CONRAC; and 7) utilities needed to support the LAX Landside Access Modernization Program. The LAX Landside Access Modernization Program EIR will also analyze potential future related development after completion.

Proposed improvements would be constructed in an area generally bounded by Tom Bradley International Terminal (TBIT) in the CTA of LAX on the west, Interstate 105 on the south, Interstate 405 on the east, and Westchester Parkway/West Arbor Vitae Street on the north.

Caltrans staff met with LAWA, the City of Los Angeles, and Metro on numerous occasions to identify and discuss the study area. Early coordination meetings provided several opportunities to collectively

identify the potential impacts this project may have on the State Highway System and develop mitigation measures to minimize those effects.

LAWA worked with Caltrans to develop the following significant impact criteria for freeway segments and ramp junctions. It was determined that a project would have a significant impact if any of following conditions are met for either AM or PM peak hours.

- If vehicle queues exceed the length of an on-ramp or off-ramp where there is no auxiliary lane.
- When auxiliary lane is present, there is a significant impact when the queue exceeds the lesser of one-half the length of the auxiliary land or 1000 feet, which creates a speed differential between the auxiliary land and the adjacent lane.
- If freeway ramp terminal or ramp foremost or associated queue storage is blocked due to queuing or spillover at a surface street driveway or at an intersection
- If any intersection or driveway of the State Highway System (SHS) is in such proximity to another LAMP's intersection or driveway that safety concerns may arise.
- If the LAMP traffic conditions cause the Level of Service (LOS) to deteriorate to below LOS F. If a freeway segment is already at LOS F, then an increase in the demand/capacity ratio of greater than 1% determined by comparing the future with Project Conditions to the future without Project Conditions would result in a significant impact.

In this case, the existing freeway mainline traffic volumes were obtained from five weeks of traffic data from October 2014 provided and verified by Caltrans. Caltrans provided 24-hour traffic counts along the I-105 Freeway, I-405 Freeway and SR-90 Freeway. The morning (6:00 AM to 9:00 AM) and evening (3:00 PM-7:00 PM) peak period traffic volumes by direction were selected for each analyzed freeway segment based on the five weeks of data from Tuesday through Thursday. Traffic Volumes reflect typical weekday operations during existing year conditions.

Per Caltrans request and analyses was done for the freeway mainline segments, freeway HOV segments, on- and off-ramp junctions and arterial intersection operations. In regards to the regional freeway system, an analysis was conducted to quantify potential impacts of the Project based on the significant traffic impact criteria developed with Caltrans. The analysis was conducted for 23 freeway mainline segments during the morning and evening peak hours.

- Under Future (2035) with Project conditions, before mitigation, the Project is estimated to result in significant impact at 3 study intersections in the morning peak hour at various intersections including
  - Sepulveda Boulevard & Century Boulevard – Impacted AM Peak Hour
  - I-105 Freeway Ramps (east of Aviation Boulevard) & Imperial Highway – Impacted PM Peak Hour

  With the proposed improvements, impacts at these location are considered satisfactorily addressed.

- Under future (2035) with Project (LAMP Build out) and other related project conditions the following intersections will be significantly impacted.
  - Sepulveda Boulevard & Westchester Parkway – Impacted AM Peak Hour

  - Sepulveda Boulevard & Century Boulevard – Impacted AM Peak Hour
  - I-105 Freeway Ramps (east of Aviation Boulevard) & Imperial Highway – Impacted PM Peak Hour
  - I-405 Freeway Northbound Ramps & Century Boulevard – Impacted AM Peak Hour

- Under Baseline (2015) with Project conditions and Future (2024) with Phase 1 Project conditions, the proposed Project would not result in significant impacts at the 23 freeway mainline segments during the morning and/or evening peak hours.

- Under Future (2035) with Project conditions, one of the freeway mainline is expected to result in significant impacts, I-405 Freeway at La Cienega Boulevard, during the evening peak hour.

- Under Future (2035) with Project and Potential Future Related Development conditions, The proposed Project and Potential Future Related Development is expected to result in significant impacts at three freeway mainline segments during the evening peak hour and includes:
  - I-405 Freeway at La Tijera Boulevard
  - I-405 Freeway at La Cienega Boulevard
  - I-105 Freeway west of Crenshaw Boulevard

We acknowledge the traffic analysis identifies various segments along I-105 and I-405 that operate deficiently under conditions. The proposed Project will fund a fair-share contribution to the improvements show below to address the significant freeway impacts:

- I-405 Freeway Mobility Improvements
- I-405 Freeway Intelligent Transportation System (ITS) Improvements (including Active Traffic Management Strategies – ATMS)
- I-105 Freeway Intelligent Transportation System (ITS) Improvements (including Active Traffic Management Strategies – ATMS)

The intent of (ITS) implementation is to alleviate the significant impacts of the Project along various key travel corridors within the City of Inglewood. It was recommended that the Project pays for the provision of new equipment need to carry out this mitigation. Furthermore, signal system corridor improvement will also be implemented. This consist of placing Closed Circuit TV (CCTV) cameras at key intersections. These will help LADOT to monitor traffic conditions in real-time to quickly address incidents that cause delay.

Provision of fair-share contribution to these cumulative impacts are considered as mitigation, per Caltrans' guidelines. Residual and unavoidable significant impacts at the above three freeway segments remain.

- An analysis was conducted to quantify potential impacts of the Project on the ramp junctions and arterial intersections within Caltrans jurisdiction, it was determined that there would be no significant impact at any of the ramp junctions and arterial intersections under Existing, Future (2024) and Future (2035) with Project conditions.

All mitigation discussed were developed and accepted in agreement with Caltrans staff. Caltrans also acknowledges the project applicant has agreed to pay its fair-share of any feasible improvements that may be implemented at the significantly impacted segments.

LAWA states it wants to encourage alternative travel modes and Caltrans supports this effort to provide alternative travel modes access such as bicycle lanes and pedestrian paths. LAWA is encouraged to provide more details on specific bicycle and pedestrian improvement, i.e. sidewalks, bike lanes, bike parking, way-finding, as these improvements provided important alternative travel modes access to the LAMP improvements.

Several of the proposed improvement and mitigation will occur on the State Highway System (I-105, I-405 and Sepulveda Blvd). For those improvements, Caltrans project development procedures will need to be followed and completed for implementation.

In the spirit of mutual cooperation, Caltrans staff is available to work with your planners and traffic engineers for this project, if needed. If you have any questions regarding these comments, please contact project coordinator Ms. Miya Edmonson, at (213) 897-6536 and refer to GTS# LA-2016-00219ME.

Sincerely,

for Dianna Watson

DIANNA WATSON
IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SENT BY E-MAIL AND USPS:
equintanilla@lawa.org

October 28, 2016

Ms. Evelyn Quintanilla, Chief of Airport Planning
Los Angeles World Airports
P.O. Box 92216
Los Angeles, CA 90009-2216

Review of the Draft Environmental Impact Report (DEIR) for the LAX Landside Access Modernization Project (LAMP)

The South Coast Air Quality Management District (SCAQMD) appreciates the opportunity to comment on the above-mentioned document. The following comments are intended to provide guidance to the Lead Agency and should be incorporated into the Final EIR.

Based on a review of the DEIR's air quality analyses for the proposed LAX Landside Access Modernization Project (LAMP), the SCAQMD staff has the following comments:

Overlapping Project Phase 1 Regional Operation and Phase 2 Construction Emissions

Based on the proposed phasing schedule, Phase 1 operation emissions will be generated starting between years 2023-2024. These emissions will overlap with emissions generated during the Project's Phase 2 construction planned to start in 2025 and end in 2035.[1] Therefore, SCAQMD staff recommends combining these overlapping emissions and comparing them with the SCAQMD's operational thresholds of significance in the Final EIR.

SCAQMD as a Responsible Agency

Since SCAQMD permits will be required, the Final EIR should identify the SCAQMD as a responsible agency. Based on the project description, gasoline fueling equipment is planned for use in the proposed Consolidated Rental Car Facility (CONRAC). The applicable air quality analyses and health risk assessment in the Final EIR should be revised to include fueling equipment emissions generated during operations in order to account for those project emissions and health impacts. For permit questions, please contact SCAQMD Engineering staff at (909) 396-2551.

In addition, concrete batch plant and rock crushing equipment will be used during construction of the proposed LAMP. If permit modifications are required, the Lead Agency should be aware that the SCAQMD permits will include emission limits consistent what was analyzed in the Final EIR. Permit questions can be directed to SCAQMD Engineering staff at (909) 396-2504.

[1] For analysis purposes, the air quality and other related studies analyzed impacts through Year 2030.

Recommended Change to Construction Mitigation Measure MM-1e:

Because the Lead Agency has determined that Project construction emissions will exceed the SCAQMD recommended daily construction threshold for Oxides of Nitrogen (NOx), the SCAQMD staff recommends the following change to Mitigation Measure Number 1e:[2]

> "All diesel-fueled equipment used for construction will be outfitted with the best available emission control devices, where technologically feasible, primarily to reduce emissions of diesel particulate matter (PM), including fine PM (PM2.5), and secondarily, to reduce emissions of NOx. This requirement shall apply to diesel-fueled off-road equipment (such as construction machinery), diesel-fueled on-road vehicles (such as trucks), and stationary diesel-fueled engines (such as electric generators). (It is unlikely that this measure will apply to equipment with Tier 4 engines.) The emission control devices utilized in construction equipment shall be verified or certified by California Air Resources Board or US Environmental Protection Agency for use in on-road or off-road vehicles or engines. For multi-year construction projects, a reassessment of equipment availability, equipment fleet mixtures, and best available emissions control devices shall be conducted annually, ~~to determine what constitutes a best available emissions control device.~~ "

Pursuant to Public Resources Code Section 21092.5, SCAQMD staff requests that the Lead Agency provide the SCAQMD with written responses to all comments contained herein prior to the adoption of the Final EIR. Further, staff is available to work with the Lead Agency to address these issues and any other questions that may arise. Please contact Gordon Mize, Air Quality Specialist CEQA Section, at (909) 396-3302, if you have any questions regarding the enclosed comments.

Sincerely,

Jillian Wong

Jillian Wong, Ph.D.
Planning and Rules Manager
Planning, Rule Development & Area Sources

JW:HH:JC:GM

LAC160915-13
Control Number

[2]DEIR, Page 4.2-54, Table 4.2.1-23 Construction-Related Air Quality Control Measures.

CITY OF LOS ANGELES
CALIFORNIA

BOARD OF PUBLIC WORKS MEMBERS
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WASTEWATER ENGINEERING SERVICES DIVISION
2714 MEDIA CENTER DRIVE
LOS ANGELES, CA 90065
FAX: (323) 342-6210
WWW.LACITYSAN.ORG

OCT 31 6:52PM

October 24, 2016

Lisa Trifiletti, Deputy Executive Director
Los Angeles World Airports
P.O. B ox 92216, Los Angeles CA, 90009-2216

Attention: Evelyn Quintanilla, Chief of Airport Planning

Ms. Trifiletti:

LOS ANGELES INTERNATIONAL AIRPORT (LAX) LANDSIDE ACCESS MODERNIZATION PROJECT (LAMP) - DRAFT ENVIRONMENTAL IMPACT REPORT (EIR)

This is in response to your September 15, 2016 letter requesting a review of your proposed landside access modernization project located at 380 World Way, Los Angeles CA 90045. The Bureau of Sanitation, Wastewater Engineering Services Division (WESD) has reviewed the request and found the project to be related to roadway improvements and the Automated People Mover (APM) system only. Currently, the project description does not identify facilities that will have a significant impact to the capacity upon the sanitary sewer network.

Based on the project description, at this time we have determined the project is unrelated to sewer capacity availability and therefore do not have sufficient details to offer an analysis at this time. Should the project description change, please continue to send us information so that we may determine if a sewer assessment is required in the future.

If you have any questions, please call Eduardo Perez of my staff at (323) 342-1562.

STORMWATER REQUIREMENTS

LA Sanitation, Watershed Protection Division (WPD) is charged with the task of ensuring the implementation of the Municipal Stormwater Permit requirements within the City of Los Angeles. We anticipate the following requirements would apply for this project.

POST-CONSTRUCTION MITIGATION REQUIREMENTS

AN EQUAL EMPLOYMENT OPPORTUNITY - AFFIRMATIVE ACTION EMPLOYER

4

The project requires implementation of stormwater mitigation measures. These requirements are based on the Standard Urban Stormwater Mitigation Plan (SUSMP) and the recently adopted Low Impact Development (LID) requirements. The projects that are subject to SUSMP/LID are required to incorporate measures to mitigate the impact of stormwater runoff. The requirements are outlined in the guidance manual titled "*Development Best Management Practices Handbook – Part B: Planning Activities*". Current regulations prioritize infiltration, capture/use, and then biofiltration as the preferred stormwater control measures. The relevant documents can be found at: www.lastormwater.org. It is advised that input regarding SUSMP requirements be received in the early phases of the project from WPD's plan-checking staff.

GREEN STREETS

The City is developing a Green Street Initiative that will require projects to implement Green Street elements in the parkway areas between the roadway and sidewalk of the public right-of-away to capture and retain stormwater and urban runoff to mitigate the impact of stormwater runoff and other environmental concerns. The goals of the Green Street elements are to improve the water quality of stormwater runoff, recharge local ground water basins, improve air quality, reduce the heat island effect of street pavement, enhance pedestrian use of sidewalks, and encourage alternate means of transportation. The Green Street elements may include infiltration systems, biofiltration swales, and permeable pavements where stormwater can be easily directed from the streets into the parkways and can be implemented in conjunction with the SUSMP/LID requirements.

CONSTRUCTION REQUIREMENTS

The project is required to implement stormwater control measures during its construction phase. All projects are subject to a set of minimum control measures to lessen the impact of stormwater pollution. In addition for projects that involve construction during the rainy season that is between October 1 and April 15, a Wet Weather Erosion Control Plan is required to be prepared. Also projects that disturb more than one-acre of land are subject to the California General Construction Stormwater Permit. As part of this requirement a Notice of Intent (NOI) needs to be filed with the State of California and a Storm Water Pollution Prevention Plan (SWPPP) needs to be prepared. The SWPPP must be maintained on-site during the duration of construction.

If there are questions regarding the stormwater requirements, please call Kosta Kaporis at (213) 485-0586, or WPD's plan-checking counter at (213) 482-7066. WPD's plan-checking counter can also be visited at 201 N. Figueroa, 3rd Fl, Station 18.

GROUNDWATER DEWATERING REUSE OPTIONS

The Los Angeles Department of Water and Power (LADWP) is charged with the task of supplying water and power to the residents and businesses in the City of Los Angeles. One of the sources of water includes groundwater. The majority of groundwater in the City of Los Angeles is adjudicated, and the rights of which are owned and managed by various parties. Extraction of groundwater within the City from any depth by law requires metering and regular reporting to the appropriate Court-appointed Watermaster. LADWP facilitates this reporting process, and may assess and collect associated fees for the usage of the City's water rights. The party performing the dewatering should inform the property owners about the reporting requirement and associated usage fees.

On April 22, 2016 the City of Los Angeles Council passed Ordinance 184248 amending the City of Los Angeles Building Code, requiring developers to consider beneficial reuse of groundwater as a conservation measure and

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alternative to the common practice of discharging groundwater to the storm drain (SEC. 99.04.305.4). It reads as follows: "Where groundwater is being extracted and discharged, a system for onsite reuse of the groundwater, shall be developed and constructed. Alternatively, the groundwater may be discharged to the sewer."

Groundwater may be beneficially used as landscape irrigation, cooling tower make-up, and construction (dust control, concrete mixing, soil compaction, etc.). Different applications may require various levels of treatment ranging from chemical additives to filtration systems. When onsite reuse is not available the groundwater may be discharged to the sewer system. This allows the water to be potentially reused as recycled water once it has been treated at a water reclamation plant. If groundwater is discharged into the storm drain it offers no potential for reuse. The onsite beneficial reuse of groundwater can reduce or eliminate costs associated with sewer and storm drain permitting and monitoring. Opting for onsite reuse or discharge to the sewer system are the preferred methods for disposing of groundwater.

To help offset costs of water conservation and reuse systems, LADWP offers the Technical Assistance Program (TAP), which provides engineering and technical assistance for qualified projects. Financial incentives are also available. Currently, LADWP provides an incentive of $1.75 for every 1,000 gallons of water saved during the first two years of a five-year conservation project. Conservation projects that last 10 years are eligible to receive the incentive during the first four years. Other water conservation assistance programs may be available from Metropolitan Water District of Southern California. To learn more about available water conservation assistance programs, please contact LADWP Rebate Programs 1-888-376-3314 and LADWP TAP 1-800-544-4498, selection "3".

For more information related to beneficial reuse of groundwater, please contact Greg Reed, Manager of Water Rights and Groundwater Management, at (213)367-2117 or greg.reed@ladwp.com.

SOLID RESOURCE REQUIREMENTS

The City has a standard requirement that applies to all proposed residential developments of four or more units or where the addition of floor areas is 25 percent or more, and all other development projects where the addition of floor area is 30 percent or more. Such developments must set aside a recycling area or room for onsite recycling activities. For more details of this requirement, please contact Daniel Hackney of the Special Project Division at (213)485-3684.

Sincerely,

Ali Poosti, Division Manager
Wastewater Engineering Services Division
LA Sanitation

EP\AP:as

c: Kosta Kaporis, LASAN
Daniel Hackney, LASAN
Eduardo Perez, LASAN

OCT31 5:27PM

CITY OF LAWNDALE

Office of the Mayor

ROBERT PULLEN-MILES
Mayor

October 27, 2016

Ms. Evelyn Quintanilla
Chief of Airport Planning
Los Angeles Airports
1 World Way, Room 218
Los Angeles, CA 90045

RE: PROGRAMMATIC DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR) FOR THE LAX LANDSIDE ACCESS MODERNIZATION PROGRAM 45-DAY PUBLIC COMMENT REVIEW PERIOD (SCH# 2015021014)

Dear Ms. Quintanilla:

On behalf of the City Council of the City of Lawndale, I would like to take this opportunity to provide comments and express concerns on the proposed LAX Landside Access Modernization Program (LAMP), as outlined in the Draft Environmental Impact Report (DEIR). While the City understands that there are a number of potential benefits associated with the project, the City remains concerned that substantial impacts to the citizens of Lawndale are not being adequately presented in the DEIR. Similarly, those impacts are not targeted for potential mitigation or improvements that could reduce the effects to be endured by the community as a result of the project. We respectfully submit these comments to help ensure that local decision makers fully comply with the California Environmental Quality Act (Public Resources Code § 21000 *et seq.*, "CEQA") and the CEQA Guidelines (14 Cal. Code of Regulations §§ 15000 – 15387) with respect to the project. The following list outlines the City's comments and concerns:

- **Aesthetics.** The Aesthetics section of the program DEIR is inadequate. The Aesthetics section of the DEIR did not identify, study, or mitigate the potential impacts on the surrounding areas of the project. The proposed project will have significant impacts on the surrounding environment including businesses and neighborhoods.

14717 BURIN AVENUE • LAWNDALE, CA 90260 • (310) 973-3200 • Fax (310) 644-4556

- **Air Quality.** The Air Quality section of the program DEIR is inadequate and incomplete. The Air Quality sections of the Program DEIR did not address or identify traffic trips and the emissions generated from the significant amount of traffic trips that will be generated as a result of this proposed project. This proposed project will create a significant amount of air quality issues locally and regionally.

- **Lack of Mitigation Measures.** The Initial Study prepared for the project identified several areas of significant environmental impacts including: Aesthesis; Greenhouse Gases; Land Use Planning; Transportation/Traffic; Hazards & Hazardous Materials; Air Quality; and Noise sections. However, despite this acknowledgement of significant environmental impacts, the Program DEIR lacked, deferred, and obfuscated proposing adequate mitigation measures to address the issues outlined in the Initial Study.
  - The traffic study includes "Fair Share" mitigation solutions to impacts created on the area freeways; however, funding for construction of these projects is not identified.

- **Land Use Planning.** The Program DEIR mentions amendments to the City of Los Angeles Land Use Element, Transportation Element, LAX Plan, the LAX Specific Plan, yet does not provide any analysis or propose any mitigation measures. The Program DEIR does not mention or address the environmental impacts associated with changes to community plans or zoning designations. The information provided in the Program DEIR is incomplete, deficient, and lacks clarity with regards to the potential environmental impacts.
  - The DEIR appears to understate impacts to residential uses, as well as homeless populations. The DEIR appears to underestimate homeless populations that will be impacted by the project. Other than underestimating the number of people directly impacted, the DEIR is silent on this enormous social impact on the area. The DEIR concludes that there is not a "substantial number of people" being displaced and that the impacts will be "less than significant". Lawndale disagrees with these conclusions. There are a "substantial" number of people who are being impacted by this project and this should require that LAWA participate financially in the construction of transitional and replacement housing.

- **Program EIR/Project Specific EIR.** The scope and scale for the proposed project is detailed enough to have completed a project level DEIR. The Program EIR does not identify, study, or mitigate the potential impacts on the surrounding areas, even though those impacts are already known to the Los Angeles World Airports (LAWA). Thus, a Project Level DEIR must be prepared for the proposed project and the Program DEIR is inadequate and incomplete pursuant to CEQA.

- **Piecemealing.** The impacts of the entire project, not just individual segments, should be analyzed. CEQA forbids "piecemealing" projects. Pursuant to CEQA, the whole of the entire project must be analyzed and those environmental considerations related to project(s) broken down into little projects. Reducing or minimizing the potential impacts to the environment through "piecemeal" is prohibited. Potential growth impacts, such as new development projects, cannot be deferred to be analyzed in a piecemeal fashion at a later time. Rather, "the need for regional environmental consideration [must be made] at the earliest stage of a planned development before it gains irreversible momentum." (*Bozung v. Local Agency Formation Commission of Ventura County* (1975) 13 Cal.3d 263, 284, fn. 28.) An agency cannot treat one integrated large project as a succession of smaller projects to avoid analyzing the environmental impacts of the whole project. (*See, CASDBA v. County of Inyo* (1985) 172 Cal. App. 3d 151, 165-166 [two separate "packages" of entitlements for one project, each analyzed in a separate Negative Declaration, improper].)

  The DEIR's project description mentions the proposed future Metro 96th Street Connector project which also includes the future extension of the Metro's Green Line. However, the entire DEIR is deficient in identifying and analyzing the potential impacts of the proposed future Green Line extension. Additionally, there are two separate EIR's currently being drafted by Metro dealing with another segment for the proposed South Bay Green Line extension. Drafting three different EIR's documents for the same Green Line project is in violation of the CEQA and considered "piecemeal" in violation of CEQA and understates the cumulative environmental impacts of the whole project.

  This proposed project, as well as the 96th Street Connector transit station should be proposed in conjunction with the Draft EIR for the South Bay Metro Green Line Extension and not as a separate projects.

- **Program DEIR Project Description/Setting.** The project description in the program DEIR is inadequate, inaccurate, and incomplete. The project description appears to be fluid and inter-changeable. CEQA mandates that the whole of the project be analyzed and that the entire project's scope must be analyzed and not deferred or relied upon for another lead agency to complete at some future date.

- **Traffic Impacts.** The proposed project will have tremendous traffic environmental impacts on the regional and locally based on the scale and scope of the project. The Program DEIR is incomplete, deficient, and inadequate and does not analyze traffic impacts to local roadways or to CALTRANS freeways including the State Routes 405 and 105. The program DEIR failed to address provide a traffic impact analysis or provide a measurable mitigation measures. Along these lines, Lawndale specifically observes:

  - The traffic analysis underestimates both traffic volume and the negative impacts on the community. The analysis optimistically relies on "pricing

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strategies" to divert congestion and offers programs such as the LAX TDM/TMA that have no measure of success. These programs must have performance metrics included in order to determine the traffic reduction forecasts.

- The traffic study assumptions/forecasts for 2024 need to be verified after Phase 1 has been in operation for one year. Any inconsistencies with this DEIR Transportation Model forecast must be rectified prior to any Phase 2 approvals.

- A regional, all-inclusive transportation plan, including freeway improvements, intersection improvements and mass transit additions, is needed to ensure transportation success of this project. If one area is not addressed/implemented the entire proposed solution to decrease congestion is jeopardized. Funding mandates from LAWA, various cities and state agencies, including Cal Trans, must be required.

- The DEIR does not address the years of neighborhood impacts resulting from reduced passenger parking at the Central Terminal Area during demolition and construction, which will increase parking and ride-sharing pick-ups.

- DEIR assumptions related to projected passenger counts and total operations in 2035 are inconsistent with historical data. The forecast for 2035 has Million Annual Passengers (MAP) at 96 to total operations (in 000's) at 850, which is a ratio of .113. The ratio in 2015 was .127, and a ratio of .113 is only found by looking back to 2010/2011. This indicates that the MAP is understated by more than 12%.

- While construction haul routes have been identified, no mention is made of the commuter routes for all other construction related traffic. All construction related traffic routes must be specified. Further, LAWA should develop a robust communications plan for the next 10 years that incorporates social media, email, outreach and print, to keep the area stakeholders apprised of construction impacts (noise, late night work, road closures, haul route activity).

The comments described above certainly do not represent a complete list, but are demonstrative of the fact that there are many issues related to the proposed project that were not adequately addressed in the Draft EIR. Moreover, Lawndale requests that the public be granted more than the minimum comment period of forty-five (45) days. The LAMP is a very significant series of projects with massive impacts for the future of the region surrounding LAX and our community. Forty-five days is insufficient time for the public to review and comment upon a project of this magnitude and long-term planning process. Lawndale respectfully suggests the comment period should be extended another forty-five (45) days for a totally public comment period of ninety (90) days. To

LAMP-AL00002

the extent comments are submitted by other agencies or interested persons, Lawndale reserves the right to incorporate and adopt such comments as its own.

The members of the Lawndale City Council would like to make it clear that the City has significant concerns about the proposed project, as it is presented in the Draft EIR. Furthermore, we encourage LAWA to work with Lawndale, as well as the communities adjacent to the project site, to arrive at a solution that is a benefit, rather than a burden, to the surrounding area as a whole.

Sincerely,

R. Pullen-Miles

Robert Pullen-Miles
Mayor

Cc: Members of the Lawndale City Council
LAWA Board of Airport Commissioners

LAMP-AL00002

NOV 2 4 2016

COUNTY OF LOS ANGELES
AIRPORT LAND USE COMMISSION

November 1, 2016

Evelyn Quintanilla, Chief of Airport Planning
City of Los Angeles, Los Angeles World Airports
P.O. Box 92216
Los Angeles, CA 90009-2216

SUBJECT: NOTICE OF AVAILABILITY OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR LOS ANGELES INTERNATIONAL AIRPORT LANDSIDE ACCESS MODERNIZATION PROGRAM

Dear Ms. Quintanilla,

Thank you for the opportunity to comment on the Notice of Availability (NOA) of a Draft Environmental Impact Report for the Landside Access Modernization Program at Los Angeles International Airport (LAX) Plan, which include amendments to LAX Specific Plan, LAX Plan, Westchester-Playa Community Plan, and City of Los Angeles General Plan. Staff of the Los Angeles County Airport Land Use Commission (ALUC) has reviewed the NOA documents and has the following comments:

- In December 1991, the Los Angeles County Regional Planning Commission in its capacity as the ALUC adopted the Airport Land Use Plan (ALUP) for the county's fifteen public use airports. For each airport the ALUC adopted planning boundaries, also known as the airport influence area (AIA), within which certain proposed local actions must be submitted to the ALUC for review. Staff has determined that the subject property is located within the AIA for LAX.

- The proposed project is an amendment to the LAX Plan and LAX Specific Plan and amendments to the General Plan for the City of Los Angeles. Pursuant to Public Utilities Code Section 21676(b), amendments to General and Specific Plans are land use actions which require ALUC review as listed in Sections 1.5.1 and 1.5.2 of the ALUC Review Procedures and therefore requires review by the ALUC for an Airport Land Use Plan consistency determination.

- The types of potential airport impacts which the ALUC considers are:

  1) Exposure to aircraft noise in areas within the AIA;

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2) Land use safety – the risks, both to people on the ground and the occupants of aircraft, associated with aircraft accidents near airports;

3) Protection of airport airspace from hazards to flight, including smoke, light and glare; and

4) General concerns, especially with annoyance, related to aircraft overflights.

The relevant sections of the Draft EIR which the ALUC will review for this project are Aesthetics (Light and Glare), Land Use & Planning, Noise, and Hazards/Hazardous Materials. The ALUC is not concerned with all other matters addressed in the DEIR, including air quality, traffic circulation and public services.

The timing of submission of materials for review by the ALUC should be after the Board of Airport Commissioners and L.A. Planning Commission have taken preliminary action, but before the City Council considers the project for final approval. All project information should be filed with the Department of Regional Planning.

If you have any questions regarding this matter, please contact Bruce Durbin at (213) 974-6432 or via email at aluc@planning.lacounty.gov, between 7:30 am and 5:30 PM, Monday through Thursday. Our office is closed on Fridays.

Sincerely,

DEPARTMENT OF REGIONAL PLANNING
Richard J. Bruckner

Bruce Durbin, Supervising Regional Planner
Ordinance Studies Section/ALUC Staff

BD:as

From: HallT@email.laccd.edu
To: LAX Stakeholder Liaison
Subject: Stakeholder Comment Submitted - Ref. No. 161115115854
Date: Tuesday, November 15, 2016 11:59:06 AM

This is to inform you that a comment form was submitted.

Reference No.:	161115115854
Date Submitted:	11/15/2016
From:	Thomas L Hall
Email:	HallT@email.laccd.edu
Company Name:	LA Community College District ,
Address:	770 Wilshire Blvd6th Floor, Facilities Planning & Development
City:	Los Angeles
State:	CA
Zip Code:	90017
Project Name:	LAMP DEIR
	November 15, 2016 Website Submittal Only: connectinglax.com Evelyn Quintanilla, Chief of Airport Planning Los Angeles World Airports P.O. Box 92216 Los Angeles, California 90029-2216 Regarding: Los Angeles International Airport Landside Access Modernization Program ("Project") Ms. Quintanilla: On behalf of the Los Angeles Community College District ("District") and West Los Angeles College ("WLAC"), thank you for the opportunity to provide comments on the Draft Environmental Impact Report ("DEIR") for Los Angeles International Airport ("LAX") Landside Access Modernization Program ("Project"). As you know, the District owns approximately 4.82 acres of land located at 9700 S. Sepulveda Boulevard ("Property" or "Site"). The Property lies on the north side of 98th Street, and runs from Sepulveda Boulevard to Vicksburg Avenue. The Property is adjacent to the land owned by Wally Park, which lies on the south side of 96th and also runs from Sepulveda Boulevard to Vicksburg Avenue ("Adjacent Property"). The Property is improved with two airplane hangars that WLAC currently uses for the warehousing of movie set props and for instruction to support its Film/Television Production Crafts program. The type of instructional services provided at the Property cannot be duplicated at other District-owned facilities and as such is integral to the

program's educational purposes. The remaining portion of the Property is generating revenue for WLAC via a surface parking ground-lease and providing District headquarters with parking downtown in exchange for parking at the Site. We have the following general comments: During the NOP comment stage, the Project drawings depicted the construction of an underpass, underneath the Property, from southbound Sepulveda Boulevard. The DEIR Project drawings, no longer depict the tunnel, the Project now anticipates acquiring the Adjacent Property and constructing a new at-grade roadway having its inception north bound on Sepulveda between 98th and 96th Street ("New Roadway"), cutting through a portion of the District Property and running the length of the Adjacent Property. The New Roadway appears to curve at New "A" Street and lead to the ITF West and CTA. Two main issues are of serious concern. One: The New Road will be constructed partially on District Property impacting the District's ability to use the Site in the future, academically, as a revenue generator and with the existing arrangement for District parking Downtown. It is unclear what at grade improvements will be required on the Property and adjacent streets to support the New Road on the Site. We need more detail to understand whether the New Road will be covered, retaining or sound walls constructed, set-backs required, and if changes on Sepulveda will relocate the ingress and egress to and from the Property to truly understand the practical implications of the Project during construction and operation. Additional detail will make clear whether the Project will have the effect of isolating the Site or making access to the Site extremely challenging that drivers simply decide to park elsewhere or deters students from attending class. The numerous road closures, new street configurations and construction of new streets will all impact access to the Site. Construction of the New Roadway without taking/using a portion of the District Property should be strongly considered and analyzed. DEIR indicates 96th Street between Sepulveda and Vicksburg will be significantly improved and Vicksburg demolished. Perhaps the widening 96th Street may wholly encompass the New Roadway. Constructing the New Roadway further north entirely on the Adjacent Property is also an option. Secondly, the DEIR does not recognize the Property as an educational facility. It is identified as a purely commercially used Site. As explained above, the Site is an integral part to the WLAC Film/Television Production Crafts Program and labs are held on Site. The DEIR fails to analyze the impacts of the Project and New Road on sensitive users a few feet away and adjacent to some of the other components of the Project. Additionally, expanding the academic component to the entire Site is an option available to the District today. We also need more clarity as it relates to other Entitlements that are being requested. The Property is uniquely positioned and the District derives great benefits from its current uses as both a commercial and an educational site. What are the General Plan Amendments, Specific Plan Amendments and Zone changes being sought? Would they prohibit or limit the current uses and future uses on Site? We request that the FEIR recognize the Property also as an academic use, in order for the correct impacts to be determined and the

correct mitigation measures be recommended. Air Quality Figure 4.2.2-1 identifies the Property as a commercial site only. As mentioned above, the Property is being used for instructional purposes and a corresponding air quality analysis should be made. Instruction at times is provided outdoors and the decrease in air quality due to the New Roadway (construction and operation) just a few feet away should be analyzed considering this use. Among other impacts, the exhaust from the vehicles travelling on the New Roadway to the CTA and dust particles in the area will likely increase having a health impact on the students. The DEIR states that with appropriate mitigation most of the impacts are reduced to a level that is less than significant, and there are a few significant and unavoidable impacts with mitigation. However, the DEIR did not recognize the Property as an academic use to arrive at the conclusion. We request that the FEIR recognizes the Property as an academic use, in order for the correct impacts to be determined and the correct mitigation measures to be in place. In addition, dust particles may create additional maintenance costs for the District facility, this should be analyzed and the impacts mitigated. As it relates to the parking use, the construction and operation of the New Road will impact the amount of dust and debris accumulated on the vehicles, which may then deter potential drivers from parking on the Property. Appropriate dust mitigations should be implemented. Hazards and Hazardous Materials Allied Aviation Services Co. and Park One/Honeywell International, both across the street from the Property, are listed in the Hazardous Material Sites of Concern in Table 4.6.1-1 of the DEIR. The DEIR states that with appropriate mitigation the impacts are reduced to a level that is less than significant. However, the DEIR did not recognize the Property as an academic use to arrive at the conclusion. In the FEIR the Property should be recognized as an academic use, in order for the correct: 1) mitigation measures to be in place; and 2) procedures to be set in place should there be a release and exposure to the students. LAWA should consider appropriate mitigation measures during the excavation, improvement, demolition and construction of the New Road, Sepulveda, 96th Street, 98th Street, Vicksburg and other surrounding streets given the proximity to the Property and the exposure to students. Trucks transporting hazardous materials on the New Road should take appropriate mitigation measures to reduce dangers associated with hazardous materials to students on Site and parking customers. Hydrology and Water Quality The Project should analyze to determine if there will be a change in the drainage pattern on the Property, that may result in flooding and damage to the hangars on the Site as well as to the movie props inside. Page 38 of Appendix L of the DEIR states that the existing drainage pattern is East and South, however, the drainage pattern is not analyzed on the Property itself after the New Road is constructed. It is unclear if the drainage pattern is altered due to the construction of the New Road and its related improvements. In addition, it is unclear if the storm-water capture beneath the ConRAC facility would be effective in mitigating any run-off from the Property. While the other project facilities have not proposed

Other Comments:	detention measures, detention resulting from the New Road should be considered, especially since the hangars will remain on Site. Noise & Vibration The DEIR does not recognize the Property as one with an academic use. Page 13 of Appendix M states that "sensitive land-uses and establishments situated close to future construction zones were identified in the screening survey," however the Property was not identified as an academic use, accordingly the impacts to the District students were not analyzed. The FEIR should recognize the Property as an academic use, in order for the correct impacts to be determined and the correct mitigation measures be recommended during construction (construction and equipment noise) and during operation. In this vein, our comments below relate to a few intersections that omitted the specific analysis of the Property with the New Road and the academic use: • Page 1018 of the DEIR erroneously states that the closest noise-sensitive receptor to 96th Street and Vicksburg is the Courtyard Marriot at Vicksburg and 98th Street. In this particular intersection, the Property is the closest noise sensitive receptor since it is on the same block. • The Property is also the closest noise sensitive receptor to Southbound S. Sepulveda Boulevard to World Way where the skyway is being replaced and new ramps will be constructed on Sepulveda. It is unclear if drivers will be able to turn left onto the Property south of 96th Street or on 96th Street. • The closest Noise Survey Locations are Sepulveda & Century and 98th Street and Vicksburg. Given the proximity of the construction and operation of the New Road, as wells as the improvement, demolition and construction of new street, measurements should also be taken at the Property particularly considering the academic use. • The highest single-hour measurement collected was at Century & Sepulveda. This intersection is one block from the Property. Noise and Vibration impacts on the academic use and the commercial use due to the New Road and immediate street improvements should also be analyzed. • The DEIR Appendix M page 47 states that higher vibration levels were measured in the western half of the study area, closer to the LAX CTA. It is unclear if this only considered the immediate surrounding street improvements or the New Road as well. The traffic noise modeling should measure the vibration and noise on the Property, given that it will be surrounded by Project construction and new Project operational activity. • The widening of 98th Street failed to identify the Property as noise sensitive receptors. • Sepulveda & Century is identified as a Ground Vibration Monitoring Location (pg 1004 or Figure 4.9.3-2). Given the proximity of the New Road and the immediate surrounding of street being improved on the Property, vibration analysis should be made of the Site in which instruction will be conducted a few feet away from the Road and vehicles will be parking. • Impacts of "A" street, excavation utility relocation (pg 1017 DEIR) not too far from the Site should also be analyzed to determine what if any impacts they will have on the Property. Due to the anticipated various street improvements and New Road construction and operation on part of the Property the traffic noise modeling and vibration should be measured on the segment of New Road and the Property. Lastly, the impacts the vibration will have

	on the Property should consider the hangars and the current and future structures on site. Will there be structural impacts due to the Project and if so how will they be mitigated. Will vibration cause subsidence, settling, tilting, cracking, collapse of existing and future structures or overall weakening? Public Services The DEIR failed to recognize the Property as an academic institution. As mentioned above, WLAC currently uses the Property for the warehousing of movie set props and for instruction to support its Film/Television Production Crafts program. The type of instructional services provided at the Property cannot be duplicated at other District-owned facilities and as such is integral to the program's educational purposes. Today, expanding the academic component is an option available to the District today. The FEIR should recognize the Property as an academic Site in order to analyze the impacts appropriately. An acceptable instructional and training environment and the ability to maintain performance objectives will be impacted and thus must be mitigated. The DEIR cites school relocation as a mitigation measure. This measure should also be considered in relation to the District Property, as it is an active educational facility and the New Road planned on a portion of it and its related improvements may be disruptive to outdoor and indoor instruction. Transportation/ Traffic Ease of ingress and egress to and from the Site is of grave importance as well as access to LAX once the drivers have parked. It is unclear if customers parking on the Site will have better access to the airport after the Project or if the Property will become an isolated. It is also unclear whether the delays to the Property for students, staff and LAX passengers, due to closures, re-routing, staging, will be mitigated. The DEIR takes a global approach and measures to mitigate impacts to the Property should be analyzed. More details are needed to ascertain the following: • Will drivers be able to park then walk to the ITF West or ride the APM directly into the airport? • Will egress to the Site off-of Sepulveda be eliminated. • Will Vicksburg be entirely demolished (Pg. 4.12-96) so that access to the Site is only through 98th Street and drivers that are parking for the day and faculty and students are forced to use the same entrance and exit? • What will be constructed in Vicksburg's place? • Which intersections immediately surrounding the Project will be signalized to manage traffic-flow and to increase pedestrian safety. • Page 4.12-96 mentions the W. 98th Street Underpass. What is the cross street where this underpass is located? Was this meant to replace the New Road during the NOP stage? • Phase 2 at page 4-12-97 mentions a tunnel on Sepulveda and 96th street, is this similar to the tunnel envisioned in the NOP? Many improvements are occurring around the property, along W. 96th Street, including street closures (4.12-96), new street construction and Sky Bridge Removal. It is unclear whether impacts to both the parking operation and the academic use specific to the Property were analyzed. It is also unclear if the property will be so difficult to access that neither the commercial nor the academic use will continue to be successful. The Project will create a significant impact at the intersection of Century and Sepulveda. It is unclear the volume and speed of vehicles anticipated using the New Road

	coming north on Sepulveda and the impact to the intersection of 98th and Sepulveda. The intersection of 98th and Sepulveda becomes a critical intersection for the Property and drivers may no longer be able to access the Property for airport parking off of Sepulveda or 96th and drivers and students would be forced to go around if they miss the turn onto 98th. It does not appear the 98th will have a signal light therefore access to the Property will become much more challenging with the Project. MM-ST (LAMP) 17- recommends modification of Sepulveda and Century Blvd. and it is unclear what this would mean further north on Sepulveda. On Phase 2 (4.12.3.7.3) the Project has a significant impact on Sepulveda & Century and Sepulveda & Lincoln, the Property is between these two intersections and mitigation measures did not address direct impact to ingress and egress to the Property. With regards to MM-ST LAMP 3, LACCD would welcome being involved in the Worksite Traffic Control Plans conversations in order to share parking ingress and egress concerns as well as to share academic schedule and what works best for the commercial parking operation on Site. (page 1373) District is in agreement with MM-ST LAMP 5 that access remains unobstructed for land uses in proximity to the Project site during construction. As it relates to the academic use, we welcome an opportunity to share the academic schedule with LAWA to ensure that there is no disruption to the academic activities on Site. The Truck Routes down Sepulveda have been established (4.12-239) to travel from Sepulveda & Westchester Parkway to Sepulveda & Imperial Highway. The impacts to the property ingress an egress resulting from the travel of large trucks along with improvements on Sepulveda and surrounding streets should be analyzed as the primary access to the Site is from Sepulveda and 96th fro Drivers and 98th Street for Students. The District is supportive of LAWA's efforts to improve the passenger travel experience. We request that the FEIR recognize the Property as an active academic use as well as a commercial use and analyze the impacts and recommend mitigation measure accordingly. It is the District's intent to continue to provide instructional services on this very uniquely positioned asset and continue with the current lease arrangement to generate revenue for WLAC and to provide District staff parking in the Downtown Los Angeles area. Should you have any questions please feel free to contact me directly at 213-891-2119. Sincerely, Thomas L. Hall Director of Facilities, Planning & Development

IP Address: 23.240.239.233

From: LAX Stakeholder Liaison
To: MARTINEZ-SIDHOM, BRENDA
Subject: FW: Stakeholder Comment Submitted - Ref. No. 161115120422
Date: Tuesday, November 15, 2016 12:04:35 PM

From: Silvia.Saucedo@Buildlaccd.org
Sent: Tuesday, November 15, 2016 12:04:27 PM (UTC-08:00) Pacific Time (US & Canada)
To: LAX Stakeholder Liaison
Subject: Stakeholder Comment Submitted - Ref. No. 161115120422

This is to inform you that a comment form was submitted.

Reference No.:	161115120422
Date Submitted:	11/15/2016
From:	Silvia Saucedo
Email:	Silvia.Saucedo@Buildlaccd.org
Company Name:	LA Community College District,
Address:	770 Wilshire Blvd.6th Floor, Facilities Planning & Development
City:	Los Angeles
State:	CA
Zip Code:	90017
Project Name:	LAMP DEIR
	November 15, 2016 Website Submittal Only: connectinglax.com Evelyn Quintanilla, Chief of Airport Planning Los Angeles World Airports P.O. Box 92216 Los Angeles, California 90029-2216 Regarding: Los Angeles International Airport Landside Access Modernization Program ("Project") Ms. Quintanilla: On behalf of the Los Angeles Community College District ("District") and West Los Angeles College ("WLAC"), thank you for the opportunity to provide comments on the Draft Environmental Impact Report ("DEIR") for Los Angeles International Airport ("LAX") Landside Access Modernization Program ("Project"). As you know, the District owns approximately 4.82 acres of land located at 9700 S. Sepulveda Boulevard ("Property" or "Site"). The Property lies on the north side of 98th Street, and runs from Sepulveda Boulevard to Vicksburg Avenue. The Property is adjacent to the land owned by Wally Park,

which lies on the south side of 96th and also runs from Sepulveda Boulevard to Vicksburg Avenue (“Adjacent Property”). The Property is improved with two airplane hangars that WLAC currently uses for the warehousing of movie set props and for instruction to support its Film/Television Production Crafts program. The type of instructional services provided at the Property cannot be duplicated at other District-owned facilities and as such is integral to the program’s educational purposes. The remaining portion of the Property is generating revenue for WLAC via a surface parking ground-lease and providing District headquarters with parking downtown in exchange for parking at the Site. We have the following general comments: During the NOP comment stage, the Project drawings depicted the construction of an underpass, underneath the Property, from southbound Sepulveda Boulevard. The DEIR Project drawings, no longer depict the tunnel, the Project now anticipates acquiring the Adjacent Property and constructing a new at-grade roadway having its inception north bound on Sepulveda between 98th and 96th Street (“New Roadway”), cutting through a portion of the District Property and running the length of the Adjacent Property. The New Roadway appears to curve at New “A” Street and lead to the ITF West and CTA. Two main issues are of serious concern. One: The New Road will be constructed partially on District Property impacting the District’s ability to use the Site in the future, academically, as a revenue generator and with the existing arrangement for District parking Downtown. It is unclear what at grade improvements will be required on the Property and adjacent streets to support the New Road on the Site. We need more detail to understand whether the New Road will be covered, retaining or sound walls constructed, set-backs required, and if changes on Sepulveda will relocate the ingress and egress to and from the Property to truly understand the practical implications of the Project during construction and operation. Additional detail will make clear whether the Project will have the effect of isolating the Site or making access to the Site extremely challenging that drivers simply decide to park elsewhere or deters students from attending class. The numerous road closures, new street configurations and construction of new streets will all impact access to the Site. Construction of the New Roadway without taking/using a portion of the District Property should be strongly considered and analyzed. DEIR indicates 96th Street between Sepulveda and Vicksburg will be significantly improved and Vicksburg demolished. Perhaps the widening 96th Street may wholly encompass the New Roadway. Constructing the New Roadway further north entirely on the Adjacent Property is also an option. Secondly, the DEIR does not recognize the Property as an educational facility. It is identified as a purely commercially used Site. As explained above, the Site is an integral part to the WLAC Film/Television Production Crafts Program and labs are held on Site. The DEIR fails to analyze the impacts of the Project and New Road on sensitive users a few feet away and adjacent to some of the other components of the Project. Additionally, expanding the academic component to the entire Site is an option available to the District today. We also need more clarity as it relates to other Entitlements that are being requested.

The Property is uniquely positioned and the District derives great benefits from its current uses as both a commercial and an educational site. What are the General Plan Amendments, Specific Plan Amendments and Zone changes being sought? Would they prohibit or limit the current uses and future uses on Site? We request that the FEIR recognize the Property also as an academic use, in order for the correct impacts to be determined and the correct mitigation measures be recommended. Air Quality Figure 4.2.2-1 identifies the Property as a commercial site only. As mentioned above, the Property is being used for instructional purposes and a corresponding air quality analysis should be made. Instruction at times is provided outdoors and the decrease in air quality due to the New Roadway (construction and operation) just a few feet away should be analyzed considering this use. Among other impacts, the exhaust from the vehicles travelling on the New Roadway to the CTA and dust particles in the area will likely increase having a health impact on the students. The DEIR states that with appropriate mitigation most of the impacts are reduced to a level that is less than significant, and there are a few significant and unavoidable impacts with mitigation. However, the DEIR did not recognize the Property as an academic use to arrive at the conclusion. We request that the FEIR recognizes the Property as an academic use, in order for the correct impacts to be determined and the correct mitigation measures to be in place. In addition, dust particles may create additional maintenance costs for the District facility, this should be analyzed and the impacts mitigated. As it relates to the parking use, the construction and operation of the New Road will impact the amount of dust and debris accumulated on the vehicles, which may then deter potential drivers from parking on the Property. Appropriate dust mitigations should be implemented. Hazards and Hazardous Materials Allied Aviation Services Co. and Park One/Honeywell International, both across the street from the Property, are listed in the Hazardous Material Sites of Concern in Table 4.6.1-1 of the DEIR. The DEIR states that with appropriate mitigation the impacts are reduced to a level that is less than significant. However, the DEIR did not recognize the Property as an academic use to arrive at the conclusion. In the FEIR the Property should be recognized as an academic use, in order for the correct: 1) mitigation measures to be in place; and 2) procedures to be set in place should there be a release and exposure to the students. LAWA should consider appropriate mitigation measures during the excavation, improvement, demolition and construction of the New Road, Sepulveda, 96th Street, 98th Street, Vicksburg and other surrounding streets given the proximity to the Property and the exposure to students. Trucks transporting hazardous materials on the New Road should take appropriate mitigation measures to reduce dangers associated with hazardous materials to students on Site and parking customers. Hydrology and Water Quality The Project should analyze to determine if there will be a change in the drainage pattern on the Property, that may result in flooding and damage to the hangars on the Site as well as to the movie props inside. Page 38 of Appendix L of the DEIR states that the existing

Other Comments:

drainage pattern is East and South, however, the drainage pattern is not analyzed on the Property itself after the New Road is constructed. It is unclear if the drainage pattern is altered due to the construction of the New Road and its related improvements. In addition, it is unclear if the storm-water capture beneath the ConRAC facility would be effective in mitigating any run-off from the Property. While the other project facilities have not proposed detention measures, detention resulting from the New Road should be considered, especially since the hangars will remain on Site. Noise & Vibration The DEIR does not recognize the Property as one with an academic use. Page 13 of Appendix M states that “sensitive land-uses and establishments situated close to future construction zones were identified in the screening survey,” however the Property was not identified as an academic use, accordingly the impacts to the District students were not analyzed. The FEIR should recognize the Property as an academic use, in order for the correct impacts to be determined and the correct mitigation measures be recommended during construction (construction and equipment noise) and during operation. In this vein, our comments below relate to a few intersections that omitted the specific analysis of the Property with the New Road and the academic use: • Page 1018 of the DEIR erroneously states that the closest noise-sensitive receptor to 96th Street and Vicksburg is the Courtyard Marriot at Vicksburg and 98th Street. In this particular intersection, the Property is the closest noise sensitive receptor since it is on the same block. • The Property is also the closest noise sensitive receptor to Southbound S. Sepulveda Boulevard to World Way where the skyway is being replaced and new ramps will be constructed on Sepulveda. It is unclear if drivers will be able to turn left onto the Property south of 96th Street or on 96th Street. • The closest Noise Survey Locations are Sepulveda & Century and 98th Street and Vicksburg. Given the proximity of the construction and operation of the New Road, as wells as the improvement, demolition and construction of new street, measurements should also be taken at the Property particularly considering the academic use. • The highest single-hour measurement collected was at Century & Sepulveda. This intersection is one block from the Property. Noise and Vibration impacts on the academic use and the commercial use due to the New Road and immediate street improvements should also be analyzed. • The DEIR Appendix M page 47 states that higher vibration levels were measured in the western half of the study area, closer to the LAX CTA. It is unclear if this only considered the immediate surrounding street improvements or the New Road as well. The traffic noise modeling should measure the vibration and noise on the Property, given that it will be surrounded by Project construction and new Project operational activity. • The widening of 98th Street failed to identify the Property as noise sensitive receptors. • Sepulveda & Century is identified as a Ground Vibration Monitoring Location (pg 1004 or Figure 4.9.3-2). Given the proximity of the New Road and the immediate surrounding of street being improved on the Property, vibration analysis should be made of the Site in which instruction will be conducted a few feet away from the Road and vehicles will

be parking. • Impacts of “A” street, excavation utility relocation (pg 1017 DEIR) not too far from the Site should also be analyzed to determine what if any impacts they will have on the Property. Due to the anticipated various street improvements and New Road construction and operation on part of the Property the traffic noise modeling and vibration should be measured on the segment of New Road and the Property. Lastly, the impacts the vibration will have on the Property should consider the hangars and the current and future structures on site. Will there be structural impacts due to the Project and if so how will they be mitigated. Will vibration cause subsidence, settling, tilting, cracking, collapse of existing and future structures or overall weakening? Public Services The DEIR failed to recognize the Property as an academic institution. As mentioned above, WLAC currently uses the Property for the warehousing of movie set props and for instruction to support its Film/Television Production Crafts program. The type of instructional services provided at the Property cannot be duplicated at other District-owned facilities and as such is integral to the program’s educational purposes. Today, expanding the academic component is an option available to the District today. The FEIR should recognize the Property as an academic Site in order to analyze the impacts appropriately. An acceptable instructional and training environment and the ability to maintain performance objectives will be impacted and thus must be mitigated. The DEIR cites school relocation as a mitigation measure. This measure should also be considered in relation to the District Property, as it is an active educational facility and the New Road planned on a portion of it and its related improvements may be disruptive to outdoor and indoor instruction. Transportation/ Traffic Ease of ingress and egress to and from the Site is of grave importance as well as access to LAX once the drivers have parked. It is unclear if customers parking on the Site will have better access to the airport after the Project or if the Property will become an isolated. It is also unclear whether the delays to the Property for students, staff and LAX passengers, due to closures, re-routing, staging, will be mitigated. The DEIR takes a global approach and measures to mitigate impacts to the Property should be analyzed. More details are needed to ascertain the following: • Will drivers be able to park then walk to the ITF West or ride the APM directly into the airport? • Will egress to the Site off-of Sepulveda be eliminated. • Will Vicksburg be entirely demolished (Pg. 4.12-96) so that access to the Site is only through 98th Street and drivers that are parking for the day and faculty and students are forced to use the same entrance and exit? • What will be constructed in Vicksburg’s place? • Which intersections immediately surrounding the Project will be signalized to manage traffic-flow and to increase pedestrian safety. • Page 4.12-96 mentions the W. 98th Street Underpass. What is the cross street where this underpass is located? Was this meant to replace the New Road during the NOP stage? • Phase 2 at page 4-12-97 mentions a tunnel on Sepulveda and 96th street, is this similar to the tunnel envisioned in the NOP? Many improvements are occurring around the property, along W. 96th Street, including street closures (4.12-96), new street construction and Sky Bridge

	Removal. It is unclear whether impacts to both the parking operation and the academic use specific to the Property were analyzed. It is also unclear if the property will be so difficult to access that neither the commercial nor the academic use will continue to be successful. The Project will create a significant impact at the intersection of Century and Sepulveda. It is unclear the volume and speed of vehicles anticipated using the New Road coming north on Sepulveda and the impact to the intersection of 98th and Sepulveda. The intersection of 98th and Sepulveda becomes a critical intersection for the Property and drivers may no longer be able to access the Property for airport parking off of Sepulveda or 96th and drivers and students would be forced to go around if they miss the turn onto 98th. It does not appear the 98th will have a signal light therefore access to the Property will become much more challenging with the Project. MM-ST (LAMP) 17- recommends modification of Sepulveda and Century Blvd. and it is unclear what this would mean further north on Sepulveda. On Phase 2 (4.12.3.7.3) the Project has a significant impact on Sepulveda & Century and Sepulveda & Lincoln, the Property is between these two intersections and mitigation measures did not address direct impact to ingress and egress to the Property. With regards to MM-ST LAMP 3, LACCD would welcome being involved in the Worksite Traffic Control Plans conversations in order to share parking ingress and egress concerns as well as to share academic schedule and what works best for the commercial parking operation on Site. (page 1373) District is in agreement with MM-ST LAMP 5 that access remains unobstructed for land uses in proximity to the Project site during construction. As it relates to the academic use, we welcome an opportunity to share the academic schedule with LAWA to ensure that there is no disruption to the academic activities on Site. The Truck Routes down Sepulveda have been established (4.12-239) to travel from Sepulveda & Westchester Parkway to Sepulveda & Imperial Highway. The impacts to the property ingress an egress resulting from the travel of large trucks along with improvements on Sepulveda and surrounding streets should be analyzed as the primary access to the Site is from Sepulveda and 96th fro Drivers and 98th Street for Students. The District is supportive of LAWA's efforts to improve the passenger travel experience. We request that the FEIR recognize the Property as an active academic use as well as a commercial use and analyze the impacts and recommend mitigation measure accordingly. It is the District's intent to continue to provide instructional services on this very uniquely positioned asset and continue with the current lease arrangement to generate revenue for WLAC and to provide District staff parking in the Downtown Los Angeles area. Should you have any questions please feel free to contact me directly at 213-891-2119. Sincerely, Thomas L. Hall Director of Facilities, Planning & Development

IP Address: 23.240.239.233

From: Barrett, Susan
To: MARTINEZ-SIDHOM, BRENDA
Cc: Lichman, Barbara
Subject: LAMP DEIR Comment Letter - City of Culver City
Date: Tuesday, November 15, 2016 1:02:18 PM
Attachments: Comments on LAMP DEIR 11.15.16.PDF

Attached please find the comments of the City of Culver City to the Los Angeles International Airport (LAX) Landside Access Modernization Program Draft Environmental Impact Report.

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Sent: Tuesday, November 15, 2016 11:10 AM
To: Barrett, Susan
Cc: MARTINEZ-SIDHOM, BRENDA
Subject: LAMP DEIR Comment Letter

Hi Susan,

Per our conversation, comments to the LAMP DEIR can be submitted via:

1. Online: www.ourlax.org/comments.aspx
2. email: bsidhom@lawa.org (replying to this email)
3. US Mail to: Evelyn Quintanilla, P.O. Box 92216, Los Angeles, CA 90009 or One World Way, Suite 218, Los Angeles, CA 90045

Let me know if you need additional information.

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November 15, 2016

VIA E-MAIL (BSIDHOM@LAWA.ORG)

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Re: Los Angeles International Airport (LAX) Landside Access Modernization Program Draft Environmental Impact Report - Comments of the City of Culver City

Dear Ms. Quintanilla:

The following constitutes the comments of the City of Culver City ("City") concerning the Draft Environmental Impact Report for Los Angeles International Airport (LAX) Landside Access Modernization Program ("Project" or "LAMP").

I. THE USE OF A BASELINE DATE OTHER THAN 2015 IS QUESTIONABLE

The DEIR asserts that it uses a baseline date other than the year 2015 where 2015 "by itself is not an appropriate representation of baseline conditions." Nevertheless, CEQA requires that the baseline for analysis in an environmental document be "the physical environmental conditions in the vicinity of the project as they exist at the time the notice of preparation is published, or, if no notice of preparation is published, at the time the environmental analysis is commenced . . ." 14 Cal.Code Regs. § 15125(a). Thus, the DEIR must more specifically define the circumstances, the environmental category, and reasons why it is not "appropriate" to use, the CEQA specified baseline. Otherwise, there is a clear danger that environmental impacts will be understated by the use of late baselines into which levels of environmental impact have already been incorporated, thus minimizing the environmental impacts of the Project.

II. THE DEIR IMPROPERLY ANALYZES THE PROJECT'S 900,000 SQUARE FEET OF FUTURE RELATED DEVELOPMENT AT THE "PROGRAM" LEVEL

The DEIR takes the position that the 900,000 square feet of "future related development" to be located around the CONRAC and ITF is so amorphous in its development prospects that it is impossible to adequately analyze at a project level of detail.

Nevertheless, the fact that specific development options have not yet been specified does not preclude the possibility of some specific environmental review of potential uses as determined by the Los Angeles City Zoning Code and other governing ordinances. In fact, "the level of detail should correspond to the level of detail of the program, plan, policy or ordinance that is proposed," 14 Cal. Code Regs. § 15152(b). In this case, this "future related development" is to take place on 47.3 acres of the total of 2 million square feet to be originally used for construction staging. Despite the scope of the area involved, and despite that neither the uses envisioned for this area, nor their impacts are described or analyzed with any specificity.

Therefore, it is entirely possible to provide more analysis on, among others, the parameters of air quality and traffic impacts by referring to and relying on the zoning designations for the areas covered by the "future related development." That the DEIR does little more than dismiss those impacts, stating that they will be analyzed at a future date when that aspect of the Project is analyzed under a Program EIR, understates the full impacts of the Project, and, thus, renders the DEIR inadequate.

III. THE PURPOSE OF THE PROJECT IS OBVIATED BY ITS SIGNIFICANT TRAFFIC IMPACTS

While the stated purpose of the Project is, among other things, to "improv[e] the efficiency and operation of the surface transportation system which LAX operates," DEIR, § 1.1.3(d), that purpose is belied by the DEIR's conclusions. Specifically, the DEIR concludes that traffic improvements, even without reference to the 900,000 square feet of "future related development," *see, e.g.*, DEIR, § 1.4.2, Table 1-3, contemplated to be added to the Project for buildout by 2035, will cause significant traffic impacts to certain intersections in 2024, without mitigation, and in 2035, even with appropriate mitigation. *Id.* Moreover, the DEIR further concludes that inclusion of the "future related development" will create significant impacts both with and without mitigation during both time periods.

The origin of these conclusions is clear. Not only does the Project Description include: (1) dramatic changes to the alignment of streets and roadways; (2) new facilities for rental cars in the Consolidated Rental Car Facility ("CONRAC"), and for the similar consolidation of other modes of transportation in the Intermodal Transportation Facility ("ITF"), east of LAX; but also (3) new freeway interchanges leading to local streets that are already heavily traveled, such as La Cienega Boulevard and Arbor Vitae Street. In addition, Los Angeles Metropolitan Transit Authority ("Metro") is planning a "separate and independent" 96th Street Metro Station near the CONRAC which will also be a hub for parking of private cars and well as modes of public transportation.

A few specific areas of concern regarding traffic impacts are the use of a five percent Transportation Demand Management (TDM) reduction for employee related trips with no means of measuring the effectiveness of the TDM measures to see if they actually result in this reduction. Additionally, the traffic study identifies the existing Level of Service (LOS) of the Sepulveda Boulevard and Centinela Avenue intersection as C in the AM and E in the PM. A

2016 traffic study for another project in the vicinity showed a LOS of E in both the AM and PM for the same intersection. Therefore the analysis of this intersection understates the potential impact. In fact Table 40A suggests the intersection will see a reduced level of service for the "with project" condition which could in fact result in an impact if the proper baseline condition of LOS E AM and PM is used.

Furthermore, the Project will add a significant amount of traffic to the Sepulveda Boulevard and Jefferson Boulevard corridors, two key arterial corridors in Culver City that provide access to the airport as alternate routes to using the 405 Freeway and on which Culver CityBus operates three (3) regular fixed route bus service and one (1) rapid bus line. DEIR Section 2.4.6.2.3, "Transportation System Management," briefly suggests the use of Intelligent Transportation System (ITS) improvements "along key north-south airport access routes which may include corridors through neighboring jurisdictions such as Culver City and El Segundo." The Project should include ITS improvements, such as Adaptive Traffic Control Systems (ATCS) and Bus Signal Priority (BSP), Closed-circuit Television (CCTV), and Changeable Message Signs (CMS), along the Sepulveda Boulevard and Jefferson Boulevard corridors to work closely in conjunction with the freeway corridor ITS systems and provide coordinated and improved regional and sub-regional access to the Los Angeles International Airport (LAX) and its associated facilities.

The Project DEIR did not analyze the Project's impacts to Culver CityBus service along Sepulveda Boulevard (Line 6 and Rapid 6) and Jefferson Boulevard (Lines 3 and 4). Given that the Project will add significant amount of traffic to these corridors and these bus lines provide direct (Local 6 and Rapid 6) and indirect (Lines 3 and 4) access to Project area, the DEIR should analyze the Project's impacts to these bus lines.

It should be noted that Sections 2.4.2.1.2, 2.4.2.2.2, and 2.4.3.1 indicated that the Project will build 8,000 parking spaces at ITF West, 8,300 parking spaces at ITF East, and 8,000 parking spaces at CONRAC, totaling 24,300 parking spaces. The CONRAC includes both the customer service building, "the public hub of the CONRAC," and the employee and visitor parking structures. The total amount of parking provided for at the CONRAC, ITF West, and ITF East is indicative of the minimum number of cars that will access the airport through the surface streets proximate to the airport.

Additionally, in all this, there is no analysis of the synergistic traffic impacts of the Northside Project, planned contemporaneously for 2.3 million square feet of office and retail space immediately to the north and east of LAX, and only passing reference to an additional 900,000 square feet of "future related development" being made available by the development of the CONRAC and ITF.

In short, the DEIR minimizes both the projects themselves and their impacts. The new Metro facility, and "future related development" should at least be analyzed, at minimum, as "cumulative impacts" ["The project's incremental effects viewed in connection with the effects of past projects, the effect of other current projects and the effect of probable future projects."

14 Cal. Code Regs. § 15065(a)(3)]. Instead, the DEIR's approach is facilitated by the superficial program level of environmental review accorded to the almost 1 million square feet of "future related development" ultimately planned for the Project area. Insofar as the planning area is constrained by zoning, and given the CEQA requirement that even "program" level analyses be studied with the greatest specificity possible, it is both necessary and appropriate to analyze the potential impacts of committed levels of allowable uses within the area allocated to "future related development," without which the DEIR is notably deficient. Nevertheless, and despite the looming prospect of additional, potentially significant traffic impacts on already impacted surrounding streets, intersections, and freeway on-ramps, the DEIR persists in categorizing the Project's surface traffic impacts as "insignificant."

IV. THE PURPOSE OF THE PROJECT IS SIMILARLY CONTRAVENED BY ITS AS YET UNANALYZED, BUT APPARENTLY SIGNIFICANT AIR QUALITY IMPACTS

The most prominent weakness of the LAMP air quality analysis is its omission to study the air quality impacts of both the airside and landside portions of the total redesign of the airport. Specifically, the LAMP DEIR attempts to single out only the landside portions of what was a complete (airside, terminal and landside) redesign of LAX, as documented in the Environmental Impact Report for the Los Angeles International Airport Specific Plan Amendment Study ("SPAS EIR"). The LAMP Project, however, is acknowledged to be an integral component of the larger SPAS project which, under accepted protocols of air quality analysis, must be evaluated in total. Most importantly, even though a North Airfield Improvement Project is listed as a reasonably foreseeable project in the LAMP DEIR, emissions from aircraft (and other airside and terminal emission sources) are not estimated, or included in the air quality analysis on the unsupported pretext that "the proposed project would not increase the number of flights or type of aircraft using the airfield because it affects only efficiency of the landside/roadway system and landside development . . ." LAMP DEIR, p. 4.2-10.

Allowing EIR review to proceed as structured in the DEIR would set a precedent for staggering improvement projects that would effectively defeat the environmental review process. If, for example, landside capacity can be increased without an environmental accounting of aircraft and terminal activity effects, then subsequent airside improvements will be facilitated, since the capacity enabling effects of a previous landside modification will have been "banked," or included in the baseline for the next project review. This process can continue ad infinitum with no environmental review ever being conducted on the full impacts of a given project component. One project will simply leapfrog on the back of another such that projects continue to grow while project reviews assume exactly the opposite about their emissions.

As a consequence, the DEIR fails to properly address the Project's air quality impacts in that it does not account for total airport emissions. This is because emissions from airside activities can substantially influence whether emissions from the LAMP project can cause or contribute to a violation of an ambient air quality standard (*i.e.*, influence a project's significance decision). Therefore, non-quantification can only be justified if such non-LAMP airport related

emissions are properly accounted for in utilized air quality background concentrations. This might be substantiated if background concentrations were obtained at an air quality monitor that was downstream of non-LAMP project airport related emissions sources, and upstream of LAMP activity. Such is not, however, the case for the background concentrations employed in the DEIR.

Specifically, for all emissions species except particulate matter ("PM"), background concentrations were taken from the southwest coastal Los Angeles County Monitoring Station on Hastings Avenue. This station is located approximately 2,000 feet to the north of the west end of the northernmost runway at LAX (Runway 6L/24R). This station is very likely to provide representative background concentrations onto which the effects of airport related emissions can be added, but that only holds true if all airport emissions are considered. The prevailing wind direction at LAX is from the west (off the ocean).[1] Therefore, most of LAX related emissions will be dispersed toward the east. Little of this dispersion will influence readings of the Hastings location and this is precisely why the monitor serves as a reasonable background monitor for the airport as a whole.

What the monitor is not, however, is a reasonable source of background information for portions of the airport that are downwind of other, unaccounted for, airport emission sources. Yet that is precisely what the DEIR is assuming. The DEIR makes no effort to account for airside and terminal related emissions that occur upstream of the LAMP Project. These emissions will substantially influence air quality concentrations east of their release points. Since these emissions are not generally reflected in the background concentrations added to the Project's modeled dispersion effects, they are entirely absent from the estimated air quality concentrations. As a result, it is impossible, using the methodology currently employed in the DEIR, to accurately determine the potential significance of the LAMP Project on air quality.

Further, the importance of ensuring that all airport emissions are considered is magnified by the fact the LAMP Project will relocate a portion of airport emissions much closer to the airport boundary with surrounding communities. The incremental effects of this movement is presumably captured in the Landside air quality analysis performed for the DEIR, but it is not possible to ascertain how this increment will affect overall National Ambient Air Quality Standards/California Ambient Air Quality Standards ("NAAQS/CAAQS") compliance in the absence of a full accounting of airport emissions.

In addition, the DEIR does not appear to have adequately estimated the contribution of emissions from the 900,000 square feet of "future related development" as set forth above, this future related development is to take place on 47.3 acres (2 million square feet) of land used for LAMP construction staging. The rationale for allocating only half the available acreage to future

[1] The DEIR does not present any summary of the meteorological data used for the dispersion modeling (most importantly wind speed and direction data). However, previous EIR analyses have provided information on prevailing wind directional data and that information is consistent with qualitative statements included in the DEIR. See, for example, "the location tends to produce a regular daily reversal of wind direction; onshore (from the west) during the day and offshore (from the east) at night." DEIR, p. 4.2-19.

development is unclear, which is yet another symptom of the defects in the DEIR caused by the failure to analyze the impacts of "future related development," at least at a program level, coincidently with the LAMP Project DEIR.

Finally, the DEIR improperly dismisses Sulfate in its analysis of secondary pollutants. DEIR, p. 4.2-2. The definition of Sulfate stated in the DEIR is correct, but its dismissal is incorrect. Sulfur, emitted as Sulfur Dioxide ("SO_2"), reacts in the atmosphere to form Sulfate, which is a significant contributor to total PM, PM_{10} and $PM_{2.5}$. Nitrogen, emitted as Nitrous Oxide ("NO_x") undergoes similar post emission secondary reactions to form particulate nitrates. Ignoring secondary Sulfate and Nitrate formation will underestimate all PM impacts. The DEIR itself notes the importance of secondary PM formation on page 4.2-4, but does not appear to note the inconsistency of this correct recognition with the decision not to estimate such impacts.

While the Southern California Air Quality Management District ("SCAQMD") CEQA Guidelines significance thresholds appear to allow consideration of emitted $PM_{2.5}$ only, "Final – Methodology to Calculate Particulate Matter (PM) 2.5 and PM2.5 Significance Thresholds," October 2006, the specific wording of the guidance is "staff's recommendation for calculating PM2.5 focuses only on directly emitted PM2.5." [Emphasis added.] This statement is merely a recommendation, and does not provide sufficient specificity to determine whether the guidance does not cover the estimation of Sulfate and Nitrate PM (the guidance does include a specific methodology to estimate emitted $PM_{2.5}$), or whether such estimation is not required. In the spirit anticipated by the legislature and the Guidelines, in the face of such uncertainty, it is incumbent upon Los Angeles World Airports ("LAWA") to perform the most complete and specific study available under existing methodologies. The DEIR does not reflect this mandate in its analysis of Sulfate.

In the final analysis, the DEIR fails to analyze the joint impacts of operational and construction activities. Air quality impacts for construction are based on peak day emissions estimates, while operational impacts are assessed in both 2024 (completion of phase 1 construction) and 2035 (following the completion of phase 2). However, at least at some points between 2024 and 2035, both construction and operational activity will be occurring simultaneously. Nevertheless, the combined effects on air quality during this period are not analyzed in the DEIR.

V. SUMMARY

While the LAMP Project offers some potential remedies for the surface traffic impacts that now burden access to LAX, on some parameters, the DEIR falls short. LAWA has not addressed potential attractants of traffic such as the "future related development," and potential emissions from that development and its traffic, when coupled with the capacity enhancing characteristics of the airside portion of the project, of which the LAMP Project is part and parcel. As a consequence, the serious impacts arising from the as yet unaddressed full development of the Project area remains similarly unanalyzed.

Culver City looks forward to working with LAWA cooperatively toward full disclosure, analysis and complete mitigation of the apparent environmental impacts of the LAMP Project.

Sincerely,

BUCHALTER NEMER
A Professional Corporation

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November 15, 2016

Evelyn Quintanilla
Chief of Airport Planning
Los Angeles World Airports
P.O. Box 92216, Los Angeles, CA 90009-2216

RE: Notice of Availability – Draft Environmental Impact Report for the Los Angeles International Airport Landside Access Modernization Project

Dear Ms. Quintanilla:

Thank you for the opportunity to comment on the proposed LAX Landside Access Modernization Project (LAMP). This letter conveys recommendations from the Los Angeles County Metropolitan Transportation Authority (Metro) concerning issues that are germane to our agency's statutory responsibility in relation to our facilities and services that may be affected by the proposed project.

Over the past several years, both Metro and Los Angeles World Airports (LAWA) have worked closely to provide a connection between Metro's regional transit system and the Los Angeles International Airport (LAX). The proposed connection includes LAWA's Automated People Mover (APM) System, which is planned as part of the LAMP. Metro and LAWA have been coordinating on parallel planning and development efforts for the Airport Metro Connector (AMC) 96th Street Transit Station and APM Station, respectively. Because both projects will be built in close proximity and during the same time period, successful completion of the projects requires both agencies to collaborate and coordinate with respect to the design and construction, as well as potential roadway improvements, utility relocations, on-site work and other new accommodations in the immediate vicinity of the AMC and APM Stations.

To ensure continued coordination and communication between the two agencies, Metro is providing the following comments on the LAWA's LAMP Draft Environmental Impact Report (DEIR):

- **Design/Engineering Coordination of the APM Project:** As a continuation of current coordination activities, LAWA and Metro are striving to develop a mutually agreeable design that seamlessly connects passengers between the APM Station and the AMC 96th Street Transit Station. Both agencies need to ensure that the APM guideway structure and support columns do not conflict with the construction or operation of Metro facilities, including the Crenshaw/LAX Transit Project, the AMC 96th Street Transit Station, and the Southwestern Maintenance Yard.
- **Aviation Boulevard Roadway Improvements:** The LAMP DEIR identifies roadway improvements along Aviation Boulevard between W. 98th Street and W. Arbor Vitae Street, including additional travel lanes, new driveways for LAWA's proposed Intermodal Transportation Facility East (ITF East), and Consolidated Rental Car Facility as well as a new

signalized intersection. Both agencies need to coordinate on the final configurations of the new driveways, intersections, and traffic signal phasing.

- **Multi-use Path on Aviation Boulevard:** The LAMP DEIR identifies a 17' to 24' multi-use path on the west side of Aviation Boulevard between Arbor Aviate Street and 98th Street. Both agencies need to coordinate on the funding, design, and construction of this multi-use path and its integration with the AMC 96th Street Transit Station.
- **Arbor Vitae Street:** The LAMP DEIR proposes a right-turn lane on eastbound Arbor Vitae Street at Aviation Boulevard. Both agencies need to coordinate on the design and accommodation of this right-turn pocket to avoid impacts to the AMC 96th Street Transit Station.
- **Demolition of LAX City Bus Center:** For the enabling projects, the LAMP DEIR proposes demolishing the LAX City Bus Center and temporarily relocating most of this facility's primary functions to Metro's Aviation/Century Station on the Metro Crenshaw/LAX Line, currently under construction. In addition, other temporary relocation sites are also mentioned. As LAWA is aware, the new bus plaza planned as part of the AMC 96th Street Transit Station is intended to eventually replace the LAX City Bus Center. However, until the AMC 96th Street Transit Station is opened for passenger service, LAWA must work with Metro and other municipal bus operators to identify a temporary bus facility site that can accommodate the essential functions provided at the existing LAX City Bus Center. Furthermore, in order to ensure continuous, uninterrupted bus transit service within the LAX area, LAWA will need to coordinate with the bus transit operators, currently using the LAX City Bus Center, to ensure a seamless transition of services to this new temporary bus facility.

  As the proposed bus plaza is now part of the AMC 96th Street Transit Station, the Crenshaw/LAX Transit Project will not be constructing a bus plaza previously considered for the Aviation/Century Station. As such, LAWA would need to identify and provide additional ROW near the Aviation/Century Station to accommodate a temporary bus facility of comparable size to the existing LAX City Bus Center. Furthermore, if the LAX City Bus Center needs to be demolished and relocated prior to the opening of Metro's AMC 96th Street Transit Station, LAWA must coordinate with Metro on the construction of this temporary bus facility to avoid impacts to the construction or operation of the Aviation/Century Station, Metro Rail service and connecting bus service.
- **W. 98th Street Extension between Aviation Boulevard and Bellanca Avenue:** The construction of the 98th Street Extension may provide for the rerouting of bus transit service along W. 98th Street between the ITF West and the new AMC 96th Street Transit Station. As part of this improvement, please ensure that the design of the new signalized intersection at W. 98th Street and Aviation Boulevard will accommodate the turning movements of bus transit vehicles.
- **Operational Options on W. 98th Street:** For the segment between New A Street and Aviation Boulevard, LAWA should take into consideration the potential bus transit service planned for the ITF West and the new AMC 96th Street Transit Station.
- **Revisions to the DEIR text:**
  - Table 2-8 on page 2-129 for Aviation Boulevard ROW – confirm multi-use path is included under sidewalk column (12' to 25' width). If it is, revise to 17' to 24'.
  - Show Southwestern Maintenance Yard as existing Metro property/future Metro facility on Figure 2-47 and all other relevant figures.

  - Table 3-1 on Page 3-10 – identify AMC Project as a separate project from the Metro Crenshaw/LAX Transit Project and stations with different dates/description.
  - When referencing the Metro Rail lines at the AMC 96th Street Transit Station, include both the future Crenshaw/LAX Line as well as the Metro Green Line.

Metro looks forward to continuing our cooperative, working relationship with LAWA on our respective projects. If you have any questions regarding this response, please contact Elizabeth Carvajal at 213-922-3084 or by email at DevReview@metro.net. Metro looks forward to reviewing the Final EIR. Please send it to the following address:

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Sincerely,

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November 15, 2016

Via E-Mail and FedEx

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Re: Landside Access Modernization Program Draft Environmental Impact Report

Dear Ms. Quintanilla:

On behalf of the City of El Segundo ("City"), we submit the following comments on the Draft Environmental Impact Report ("Draft EIR" or "DEIR") for the Landside Access Modernization Program ("LAMP" or "Project"). As Los Angeles World Airports ("LAWA") is aware, the City has a number of longstanding concerns related to Los Angeles International Airport ("LAX"), including noise, traffic and air quality impacts. The City appreciates that LAWA has, thus far, been receptive to discussion regarding the environmental analysis of the Project, including the proposed non-aviation, commercial development on surplus property ("Potential Future Development"). In order to fully address the City's concerns, however, the EIR must analyze the full scope of the Project's environmental effects, including the growth-inducing effects of removing existing ground access constraints as proposed. To that end, this letter explains the City's concerns about the Project and identifies specific impacts that LAWA should carefully evaluate as part of an informative and comprehensive EIR.

By removing existing ground access constraints, the Project will ultimately enable Los Angeles International Airport to accommodate at least 95 million annual passengers ("MAP") instead of the 78.9 MAP historically represented as the maximum capacity for LAX. Despite the City's comments on the previously released Notice of Preparation ("NOP") and related National Environmental Policy Act Scoping Document ("NEPA Scoping Document"), both of which are attached to this letter, the DEIR fails to properly

analyze the environmental effects of the Project. It must be revised to address the Project's substantial contribution to future growth in passenger traffic at LAX and the resulting impacts of such growth on surrounding communities.

Please note that we will submit further comments on the LAMP DEIR's traffic analysis, and potentially other sections of the environmental document, once our traffic engineer completes his analysis.

I. The Project Would Remove Existing Ground Access Constraints and Allow LAX to Process a Higher Volume of Passengers Than Previous Planning Documents Considered.

The Master Plan, Specific Plan Amendment Study ("SPAS"), and the 2006 Settlement establish and relied on a maximum operational capacity of 78.9 MAP.[1] In its Master Plan for LAX and all subsequent proposed improvements prior to LAMP, LAWA represented that limiting the total gates at LAX to 153 would result in a maximum practical capacity of 78.9 MAP. *See* SPAS Draft EIR (2012) at 2-4. LAWA's recent environmental review of airport development projects consistently assumes this capacity for the purpose of evaluating projects' environmental impact. *See, e.g.,* Draft EIR, Midfield Satellite Concourse ("MSC") (March 2014) at 4-16, fn. 10 (stating project would comply with LAX Master Plan gate cap limit); "MSC North FAQs," available at http://www.lawa.org/mscnorth/faq.aspx (last visited November 15, 2016) (stating MSC Program will comply with 2006 Stipulated Settlement at all times). Furthermore, the LAX Specific Plan, with which all future development at LAX must be consistent, required restudy and full California Environmental Quality Act ("CEQA") review if annual passenger activity levels were anticipated to exceed 78.9 MAP.

With LAMP, however, LAWA abandons its commitment to a constrained LAX. The same 153 gates once represented as limiting LAX passenger growth effectively to 78.9 MAP are now represented as able to accommodate at least 95 MAP. That growth apparently comes from efficiencies gained through larger aircraft, fewer empty seats and shorter times between plane arrivals and departures. Efficiency is, of course, generally a

[1] As set forth in the LAX Master Plan and associated EIR (*see* Exhibits A and B on the enclosed CD) and the Specific Plan Amendment Study ("SPAS") and associated EIR that LAWA prepared pursuant to settlement with its neighbors over the Master Plan (*see* Exhibits C and D); *see also* Exhibit E (LAX Specific Plan, requiring LAWA to initiate a new specific plan amendment study if annual passenger forecast is anticipated to exceed 78.9 MAP); Exhibit F (Midfield Satellite Concourse North Project EIR).

good thing. In this case, however, some negative consequences will follow. If LAX is not, in fact, constrained to 78.9 MAP as LAWA previously represented, then the communities around LAX, like El Segundo, will suffer impacts resulting from that growth unless LAWA conducts appropriate analysis and applies effective mitigation.

LAWA has stated that the LAMP Project EIR will serve as the required CEQA review under the existing LAX Specific Plan. However, although the Project is scaled to accommodate ground access traffic associated with passenger levels in excess of 78.9 million, the DEIR does not adequately evaluate other operational impacts (e.g., noise and air pollution from aircraft operations and vehicular traffic) associated with passenger levels above 78.9 MAP. The DEIR may not ignore the impacts of the increased activity that the Project will facilitate, and its potential to further concentrate adverse impacts on nearby residents.

As the City has repeatedly emphasized to LAWA, the environmental analysis required by CEQA may not simply assert that alleviating the significant and longstanding ground access constraints at LAX will have no effect on airport operations; here, LAWA must provide substantial evidence to support such a conclusion. Pub. Res. Code § 21080(e).

Instead, the DEIR simply ignores these impacts by claiming that, by the target date for Project completion, passenger levels will have grown to 95 MAP or higher *regardless* of whether the Project is actually built. *See, e.g.,* DEIR at 6-6 through 6-8. The DEIR fails to provide substantial evidence that this assumption, which underlies all of the DEIR's analysis of environmental impacts, is true. In the CEQA context, substantial evidence means "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached. . . . Argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly erroneous or inaccurate . . . does not constitute substantial evidence." Cal. Code Regs., tit. 14 ("CEQA Guidelines"), § 15384(a).

The DEIR asserts that ground access has no bearing on airport capacity, thereby attempting to portray the role of ground access in passenger operations in black and white. This mischaracterizes what is in fact a very complex issue, particularly at LAX. As explained in the memorandum by Adib Kanafani, Ph.D., N.A.E., attached hereto as Exhibit G and incorporated by reference into this letter ("Kanafani Report"),[2] the DEIR fails to

[2] In addition to providing responses to the comments of the City set forth in this letter, LAWA must provide responses to the comments contained in the Kanafani Report.

support the assertion that the Project will not enable any portion of the projected growth in passenger capacity. As the Kanafani Report describes, each component of the airport, including the passenger terminals, the airfield, and the ground access system, is a "link in a chain," and the link with the lowest capacity "determines the capacity of the whole system." Passengers, in particular domestic travelers who have a variety of other options in the LA region for airports that provide domestic flights, take ground access congestion (along with other factors) into account when they choose an airport, particularly when congestion gets very high.

Indeed, the data cited in the DEIR's discussion of this issue states that ground access plays a role in prospective passengers' decisionmaking, thereby contradicting the assertion that removing ground access constraints will not enable passenger growth. *See* DEIR at 6-7 (citing report of the Transportation Research Board of the National Academies, Airport Cooperative Research Program, which finds that that "[s]urface access issues . . . remain[] a primary passenger choice driver in the Los Angeles Basin. Given the presence of several regional facilities across the area, the traffic situation in the Basin drives the airport choice for a large proportion of travelers."). Other sources echo this finding; a 2013 report by the Eno Center for Transportation ("Eno Report") found that "[g]round access to the airport at LAX is the most significant chokehold in the airport's system and according to [LAWA] airport access infrastructure was projected to hit complete gridlock at 78.9 million annual passengers without improvements to the system." *See* Eno Report, attached hereto as Exhibit H, at 18. Similarly, the Southern California Association of Governments ("SCAG") 2040 Regional Transportation Plan / Sustainable Communities Strategy ("2040 RTP/SCS") states that "[p]assengers' choice of airports is based in part on the travel time to the airport and the convenience of access, so facilitating airport access is essential to the efficient functioning of the aviation system." 2040 RTP/SCS Aviation & Airport Ground Access Appendix, attached hereto as Exhibit I, at 22.[3]

[3] On May 5, 2016, the City filed suit against SCAG, challenging its approval of the 2040 RTP/SCS and the adequacy of its associated environmental review. One of the critical defects in the EIR is its assumption that, although SCAG proposed to provide billions of dollars in funding to remove existing ground access constraints at LAX, this easier access would not enable higher passenger capacity. Due to that flawed reasoning, SCAG's EIR failed to analyze the impacts of this higher capacity, even as it projected a dramatic rise in the number of passengers traveling through LAX. The need for this analysis was particularly acute because none of LAWA's planning documents for LAX had analyzed, or developed mitigation for, operations scenarios with a capacity above 78.9 MAP. *See* SPAS Draft EIR at 2-4 (stating that LAWA will maintain consistency with the Master Plan's cap of 153 gates and projected 78.9 MAP).

LAWA itself has previously asserted that the ground access system is a significant constraint on passenger operations at LAX, and that it would need to be relieved to enable growth in passenger operations beyond approximately 78 MAP. The 2004 Master Plan, which considered an unconstrained demand forecast of 98 MAP in 2015 and evaluated four alternative plans under this demand scenario, stated that the No Action/No Project Alternative (i.e., no Master Plan adopted) would limit passenger operations at LAX to 78 MAP because of the airport's "constrained curbs and roadways." 2004 Master Plan EIR at Figure 1.2-1. By contrast, the alternatives that included LAMP components would have permitted up to 98 MAP. *Id.*; *id.* at 1-4 ("The [No Project] Alternative is limited by the capacity of the curbfront in the Central Terminal Area (CTA) where passengers are dropped off and picked up in front of the existing terminals. The resulting annual passenger performance measure of this alternative is approximately 78 million.").

Although this evidence directly contradicts LAWA's assertion that the proposed removal of ground access constraints with LAMP will not contribute to the higher passenger forecast at LAX in the target completion year, the DEIR does not attempt to respond to any of it. LAWA's counterargument that ground access simply is not a constraint on airport capacity, and therefore improving ground access efficiency would not affect airport capacity or operations, is incorrect and not supported by substantial evidence in the record. As a result, the DEIR fails to justify its omission of analysis of environmental impacts related to higher passenger operations enabled by the Project, including increased aviation noise, traffic, air quality and greenhouse gas ("GHG") impacts.

II. LAWA Has Hidden Within LAMP a Number of Unnecessary Plan Changes, Which It Fails to Evaluate Properly in the DEIR

The 2004 LAX Master Plan adopted for LAX makes clear that the option adopted (Alternative D) was designed to serve approximately 78 MAP, which was approximately the same aviation activity levels identified in the No Action/No Project Alternative. LAWA represented that constraining LAX in this way would encourage the development and use of regional airports. This same vision of a constrained LAX was carried forward in the SPAS. Other alternatives specifically considered and rejected as part of the 2004 Master Plan process would have involved higher MAP numbers and greater impacts.

In approving the LAX Master Plan (Alternative D), the LA City Council took care to ensure that growth beyond that anticipated in the Master Plan would not happen without subsequent public evaluation, discussion, and consideration at the City Council. This important "check" on LAX growth was implemented through adoption of the LAX

Plan and LAX Specific Plan (*see* LAMP DEIR Appendices C & D). The LAX Plan establishes a land-use policy framework, while the LAX Specific Plan establishes zoning and development regulations consistent with the LAX Plan. Future development at LAX is required to be consistent with both plans, and this consistency must be established by LAWA in reports to the City Council. The LAX Specific Plan requires that no "Project" at LAX may proceed unless it complies with the LAX Specific Plan and LAX Plan. As part of that compliance review, the Project is to be checked for compliance with Master Plan commitments and mitigation measures.

Although the plan consistency requirement and review process has worked well since the 2004 LAX Master Plan was adopted, LAWA now proposes a number of major changes as part of the LAMP Project. Specifically, LAWA has proposed a number of significant changes to the LAX Specific Plan and LAX Plan that would remove key limits on LAX growth and gut the plan consistency review process that was specifically included by the City Council for the promotion of regionalism and protection of LAX neighbors. As discussed in detail below, LAWA proposes to delete the limit of 153 gates at LAX from the LAX Plan (*see* Appendix C at 1, 7), and also wants to delete references to designing and building out LAX to serve just 78.9 MAP of the regional passenger demand until at least 2035 (*see* Appendix C at 2). LAWA's proposed changes to the LAX Specific Plan would undermine its effectiveness as a mechanism for informed and transparent public review of aviation activity and growth at LAX.

A. The Applicable Limits of 153 Gates and 78.9 MAP Contained in the LAX Plan Should Not Be Deleted as Part of LAMP.

The DEIR does not adequately explain why the limits of 153 gates and 78.9 MAP are proposed for removal from the LAX Plan as part of LAMP. In fact, there is no logical link made between LAMP's proposed ground access upgrades and the removal of those limits from the Plan. The DEIR notes in several places that the LAMP project would necessitate amendments to the LAX Specific Plan and the LAX Plan, but the explanations of "necessity" provided are generally limited to relatively minor issues such as a boundary adjustment and a rezone, which are logically necessary for LAMP. The DEIR is silent regarding the substantial changes described below, which are not necessary or appropriate as part of LAMP.

It seems likely that LAWA has proposed the 78.9 MAP limit deletion in an attempt to avoid complying with that limit going forward and perhaps to dodge a plan inconsistency problem for the extremely ambitious LAMP. Specifically, because LAMP is designed to serve so much more than 78.9 MAP, it is not consistent with the 78.9 MAP

limit in the LAX Plan. As discussed elsewhere in this letter, LAWA takes the untenable position that LAMP is not growth inducing, and insists it has no obligation to evaluate any of the impacts associated with passenger growth above 78.9 MAP as part of LAMP. LAWA cannot remove the 78.9 MAP limit from the LAX Plan without a full public discussion of that proposed policy change, which would include conducting a full analysis of the associated environmental impacts. In other words, if LAWA is now planning for LAX to serve more than 78.9 MAP, it must evaluate the impacts of that growth so the public and City Council decisionmakers have the information they need. The absence of this analysis is a major flaw in the LAMP DEIR. In the absence of that analysis, LAWA cannot remove the 78.9 MAP limit from the LAX Plan as part of the Project.

It seems likely that LAWA has proposed deletion of the 153 gates limit in an attempt to avoid having to comply with that limit going forward. LAWA should withdraw this proposed deletion because there is no LAMP-related reason articulated for the removal. Indeed, how could LAMP, which focuses on ground access improvements, logically necessitate an increase in the number of gates at LAX? In discussing this proposed change, LAWA correctly acknowledges that under its settlement agreement with El Segundo and others, a gate limit would continue to apply until at least 2020. DEIR at 7-2. What LAWA fails to acknowledge is that even after 2020, it cannot increase the number of gates at LAX without comprehensive environmental review and a Master Plan amendment. As such, the limit of 153 gates contained in the LAX Plan must remain in place unless and until that environmental review and public process is complete. Deleting the limit now is not necessary for LAMP, would be premature, and prejudges the outcome of a separate process not yet begun.

If LAWA insists on pursuing removal of the current limits of 78.9 MAP and 153 gates from the LAX Plan as part of LAMP, it must first provide a complete analysis of the noise, air quality, and other environmental impacts that would result. That analysis would need to be provided in a recirculated DEIR. That document would consider, for example, the environmental impacts such as increased noise and increased emissions (air pollution and GHGs) associated with the increased aircraft operations at the added gates and serving annual passenger numbers in excess of 78.9 MAP. As discussed elsewhere in this letter, the LAMP DEIR provides no such analysis because it assumes (incorrectly) that the Project will not increase LAX's capacity or induce any growth in aviation activity.

We note that the DEIR includes Section 7 (Evaluation of Amendments to the LAX Plan and LAX Specific Plan). This section is very strange because it purports to analyze

a Project element (Amendments to the LAX Plan and LAX Specific Plan) separate from the Project itself (LAMP). The reader is left with the impression that Section 7 was an afterthought added by LAWA once the bulk of the DEIR's environmental analysis was complete. This is inconsistent with CEQA's mandate to evaluate the whole of the project. It is also inconsistent with LAWA's obligation to inform the public and decisionmakers of all the Project's environmental impacts.

Moreover, the environment analysis in Section 7, which appears on just five pages, is limited to the following repeated conclusions: the proposed amendments to the LAX Plan and LAX Specific Plan "would generally correspond to changes at LAX as a result of the proposed Project [LAMP], as well as updates to administrative processes." In other words, LAWA argues that the proposed changes were either covered as part of the LAMP project assessment or are simple updates to administrative processes. This does not accurately capture the universe of proposed plan changes and their associated impacts.

LAWA does acknowledge, in passing, that removal of the gate limitation "may result in future increased development" but argues that it need not evaluate the impact of that development now because "removal of these policies does not mean that additional development would occur. Any future development related to the change in these policies would undergo separate CEQA review and would be subject to BOAC and other approvals prior to implementation." This is the very definition of improper deferral of environmental analysis in violation of CEQA. If future exceedance of the 153 gate limit is uncertain and speculative as LAWA seems to claim, then LAWA should not ask the City Council to delete the limit from the LAX Plan now. If, on the other hand, LAWA insists asking the City Council to delete the 153 gate limit now, it must also provide more detail regarding its gate increase plans and evaluate the associated impacts.[4] It cannot delete the gate limit now based on the representation that the associated impacts would be evaluated later.

[4] We note, for example, that LAWA's recent NOP for the LAX Terminals 2 and 3 Modernization Project ("T2 & 3 Project") indicates that LAWA may add up to five gates as part of that project. This increase is not speculative and must be evaluated as part of the T2 & 3 Project as well as LAMP, if removal of the 153 gate cap remains as part of LAMP. We hereby request that LAWA include all public project and CEQA documentation for the T2 & 3 Project in its record for LAMP. The NOP and Initial Study are provided as Exhibit J hereto. We also understand that LAWA has plans for additional gates in what it terms the "Passenger Terminal Modernization Area" ("PTMA"). *See* LAWA-ARSAC Memorandum of Understanding, attached hereto as Exhibit K.

B. The LAX Specific Plan Changes Proposed by LAWA Would Remove Key Protections Put in Place by the LA City Council When It Approved the 2004 LAX Master Plan.

LAWA proposes a multitude of changes to the LAX Specific Plan as part of the LAMP. Examples include:

- Expanding significantly the universe of projects exempt from plan consistency review (*see* Appendix D at 7-9).
- Substituting the Board of Airport Commissioners ("BOAC") for the LA City Council as the body responsible for confirming the plan consistency of projects proposed for LAX (*see* Appendix D at 10, 13).
- Deleting references to compliance with Master Plan mitigation measures and commitments (*see* Appendix D at 10, 12).
- Limiting compliance review to the LAX Specific Plan (eliminating the need for LAX Plan compliance review).
- Deleting the LAX Master Plan Stakeholder Liaison, who was tasked with assisting with communication between LAWA and stakeholders such as its neighbor, El Segundo (*see* Appendix D, throughout). Under LAWA's proposed change, apparently only Councilmember District 11 would have the benefit of a stakeholder liaison, not El Segundo and other neighbors outside the City of LA.

LAWA does not provide an adequate, comprehensive description of these proposed plan changes, referring to them generally as "updates to administrative process." *See, e.g.,* DEIR at 7-1 *et seq.* As a result, it will be difficult if not impossible for the public and decisionmakers to gain a comprehensive understanding of the nature and extent of, much less the reasoning for, LAWA's plan change proposals. To the contrary, readers of the DEIR are told in general terms that the Project "necessitates" the proposed plan changes, when (in fact) the most significant changes appear to be proposed by LAWA for reasons unrelated to LAMP. LAWA must instead provide a clear narrative description of all proposed change and the reason for each. Once that description is provided, it should become clear that LAWA is seeking (for reasons unrelated to LAMP) to eliminate important checks put in place by the City Council. Those checks remain necessary and appropriate today.

III. A Specific Plan Amendment Study Is Now Required—the Requirement Is Not Satisfied by LAMP, and Must Remain in the LAX Specific Plan Until Satisfied.

The LAX Specific Plan plainly requires a Specific Plan Amendment Study and full CEQA review if annual passenger activity levels are anticipated to exceed 78.9 MAP. The LAMP DEIR makes clear that LAWA now anticipates annual passengers will meet or exceed 78.9 million in 2016 or 2017. DEIR at 2-201. Under the Specific Plan, LAWA must therefore conduct a Specific Plan Amendment Study. This study would augment/update the analysis performed by LAWA for the LAX Master Plan and SPAS to include the higher passenger levels LAWA now desires and anticipates for LAX. This Specific Plan Amendment Study is critical because all current plans for LAX assumed and were based on a maximum passenger level of 78.9 MAP. In fact, the 2004 Master Plan (Alternative D) was approved by the LA City Council only after it received assurances that LAX would not be modified to serve passenger numbers exceeding 78.9 MAP absent further analysis (through a Specific Plan Amendment). That is not what LAWA is doing with LAMP.

LAWA does not conduct the required analysis as part of the LAMP DEIR or propose to do it elsewhere. In fact, LAWA proposes to forever delete the operative language of the LAX Specific Plan and LAX Plan (DEIR Appendices C & D), rather than preparing the required Specific Plan Amendment and CEQA review. DEIR 2-195 to 201. LAWA seems to argue that its traffic analysis done in connection with LAMP should excuse it from conducting the Specific Plan Amendment Study clearly required by the LAX Specific Plan when aviation activity analysis shows annual passengers are anticipated to exceed 78.9 million. DEIR at 7-7. The LAMP analysis is, however, not equivalent to, and no substitute for, the required Specific Plan Amendment Study.

Most notably, as discussed elsewhere in this letter, the LAMP analysis treats as a given that LAX passenger activity will continue to grow past 78.9 MAP. The LAMP documents do not evaluate, much less offer mitigation for, impacts associated with that growth (e.g., increased noise and air quality impacts on surrounding communities associated with increased aircraft activity). As such, LAMP does not comply with a key requirement set forth in the LAX Specific Plan. LAWA's proposed remedy (deletion of the requirement) is inconsistent with clear City Council direction and the City of Los Angeles' General Plan framework.

LAWA's current attempt, as part of LAMP, to evade and delete the Specific Plan Amendment requirement, is wholly inconsistent with its prior statements and commitments on the subject. As recently as its Specific Plan Amendment adoption in 2013, LAWA described the LAX Specific Plan section 7.H as "requiring a Specific Plan Amendment Study if the annual aviation activity analysis forecasts that LAX annual passengers for that year are anticipated to exceed 78.9 MAP." *See* SPAS Report

Appendix F (Operational Analysis) at 11 (section 2.5). In other words, LAWA has previously recognized that if and when the forecast for annual aviation activity levels reached 78.9 MAP, it would be obligated to undertake and request Council approval for a Specific Plan Amendment. Now that anticipated levels have reached that point, LAWA seeks to avoid the requirement by deleting it.

Similarly, LAWA recognizes that Section 7.H.2 of the LAX Specific Plan requires it to initiate an LAX Domestic Passenger Survey/Study and corresponding Airline Survey/Study if the annual aviation activity forecast indicates that the annual passengers in the year when LAX is anticipated to exceed 78.9 million. LAWA represents that it will meet this requirement by conducting the required surveys in 2016 and 2017. It also proposes to delete the requirement. Deleting the requirement is, however, premature and should not be approved by the Council until LAWA has satisfactorily completed the required surveys and made them public.

IV. LAWA Improperly Distances the LAMP and its DEIR from the Governing LAX Master Plan.

The DEIR states,

> Although components of the LAX Landside Access Modernization Program were contained in the LAX Master Plan and the LAX Specific Plan Amendment Study, the proposed Project for ground access improvements at LAX has substantively evolved from the programmatic plans contained in these previous program level documents, and the proposed LAX Landside Access Modernization Program is substantively different from the ground access improvements evaluated in the 2004 LAX Master Plan and the associated Final Environmental Impact Statement/Final Environmental Impact Report. Thus, because the current plan evaluated in this Environmental Impact Report (EIR) substantively differs from programmatic concepts in the LAX Master Plan and SPAS, this EIR does not tier off of the environmental documents associated with those plans; it is a standalone analysis of LAWA's current project-level plans for ground access improvements at LAX. Because the LAX Landside Access Modernization Program does not tier off of the LAX Master Plan EIR and is a substantively different project, this Project is not considered an LAX Master Plan project and is not subject to the LAX Master Plan commitments and mitigation measures; thus, LAWA has identified mitigation measures specific to this Project as appropriate. The LAX

> Master Plan commitments and mitigation measures are still in effect for all Master Plan projects, just as other project-specific mitigation measures are in effect for other non-LAX Master Plan projects.

DEIR at 1-4, 1-5; *see also id.* at 2-4.

A review of the LAX Master Plan adopted in 2004 and subsequent LAX Specific Plan Amendment Study makes clear that the following elements were at the core of the LAX Master Plan: an automated people mover, a remote rental car facility, an intermodal transportation facility, and remote parking garages/drop-off areas. Even LAWA seems to recognize that those same elements constitute the LAMP. Given that the LAX Master Plan (and SPAS) remain the governing planning documents for the airport and the elements of LAMP are so clearly envisioned by the Master Plan, LAWA simply is not at liberty to distance LAMP from the LAX Master Plan as it attempts to do. LAWA must instead follow (or seek to amend) the LAX Master Plan and Specific Plan.

For the reasons noted below, we are particularly concerned by the following LAMP DEIR statements:

- "the current plan evaluated in this Environmental Impact Report (EIR) substantively differs from programmatic concepts in the LAX Master Plan and SPAS"
- "this Project is not considered an LAX Master Plan project and is not subject to the LAX Master Plan commitments and mitigation measures"

LAWA must present a clear side-by-side comparison of LAMP and the programmatic concepts in the LAX Master Plan and SPAS to detail similarities and differences. If the differences are indeed substantial, then a LAX Master Plan revision and/or Specific Plan amendment would be necessary and appropriate before proceeding with LAMP. LAWA may not pursue a major initiative such as LAMP wholly separate from the LAX Master Plan (as amended by SPAS), which remain the governing planning documents for the airport. The Master Plan is *the* "modernization plan" that accounts for all growth at LAX, including construction of new taxiways, increasing runway length, improving the level of passenger service throughout the CTA, building new aircraft parking gates, and installing an automatic people mover, consolidated rental car facility, and a more efficient connection between LA Metro and LAX. *See generally* Master Plan Executive Summary.

If, by contrast, LAWA were to change course and attempt to make LAMP consistent with the LAX Master Plan, then all of the LAX Master Plan commitments and mitigation measures would apply. Those commitments include developing LAX to serve a practical capacity of 78.9 MAP, with no more than 153 gates. Mitigation measures are detailed in LAWA's adopted Mitigation Monitoring and Reporting Program ("MMRP") and include commitments to implement and expand the LAX Aircraft Noise Mitigation Program ("ANMP") to provide noise relief to surrounding communities such as El Segundo.

V. Under FAA Guidance, the Project Requires an Update to the Master Plan, Not Simply a Revision of the Airport Layout Plan.

Because the Project will receive federal funding, LAWA must update the Master Plan to be consistent with the Project and the associated passenger forecast generated by LAWA. The DEIR states that LAWA will, as a connected action, seek "FAA unconditional approval of the Airport Layout Plan (ALP) for the Airport depicting the proposed improvements," apparently instead of the required update to the master plan. DEIR at 2-217. Under FAA advisory circular 150/5070-6B ("AC"), however, the scope and sheer number of individual components of the LAMP, and its significant deviations from the current master plan, require a master plan update, not just an update to the ALP. FAA advisory circular 150/5070-6B, attached hereto as Exhibit L, at 7 (ALP update an appropriate alternative to master plan update only when "fundamental assumptions" of previous master plan will not change, or when proposal involved a "single development item").[5] LAWA cannot avoid the FAA requirement to update the LAX Master Plan simply by saying the Project "is not considered a Master Plan project and is not subject to the Master Plan commitments and mitigation measures." DEIR at 2-4. Furthermore, FAA's approval of an updated Master Plan must include approval of LAWA's revised passenger forecast for LAX. AC at 8 ("master plan forecast should be reviewed to ensure that the underlying assumptions and forecast methodologies are appropriate" including consistency of applicant's passenger forecast with FAA terminal area forecast ("TAF")). The effects of a Master Plan update on the human environment must be part of LAWA's ongoing NEPA analysis of the LAMP Project.

[5] Regardless, the proposed revisions to the ALP are not disclosed anywhere in the DEIR. *See* DEIR at 4.8-37 (stating inaccurately that "an amendment to the LAX Airport Layout Plan" is "further described below"). Although a revised master plan is required pursuant to FAA guidance, as explained above, LAWA must at the least disclose its proposed revisions to the existing ALP.

VI. The Project Will Result in Noise Impacts that Must Be Adequately Analyzed in the DEIR.

The DEIR's noise analysis purports to evaluate the Project's contribution to three "types" of noise—road traffic noise; construction traffic noise and equipment noise and vibration; and transit noise and vibration—as well as cumulative noise impacts. Yet, because the DEIR takes the flawed position that the Project will not contribute at all toward higher passenger capacity at LAX, it fails even to consider the potential for increased aviation noise resulting from the Project-enabled growth in passengers and aircraft operations. The exclusion of any significance determination or analysis regarding this noise impact, and the individual and cumulative impacts on people at LAX and adjoining neighborhoods, is a fatal flaw. The DEIR must be revised to resolve this obvious deficiency under CEQA.

As explained above, because all previous planning documents for LAX contemplated a maximum operational capacity of 78.9 MAP, the DEIR must evaluate and mitigate any aviation-related noise impacts on El Segundo residents that result from growth beyond 78.9 MAP. Current measures to mitigate aviation noise from LAX operations are scaled at 78.9 MAP and are not designed to address aviation noise at higher passenger levels. *See, e.g.,* Exhibit M, 2014 Annual Progress Report, LAX Master Plan Mitigation Monitoring & Reporting Program, at 18 (stating LAX Aircraft Noise Mitigation Program designed to mitigate land uses that would be rendered incompatible by noise impacts associated with implementation of the LAX Master Plan).

Furthermore, the current Noise Exposure Map for LAX, approved at the end of 2015, does not anticipate operations at the levels made possible by the Project. *See* Exhibit N, Final Noise Exposure Map Report (August 2015), at 3-10 (stating current noise contour is based on review of Master Plan Alternative D Report, Specific Plan Amendment Study, Midfield Satellite Concourse North Draft EIR, West Aircraft Maintenance Area Draft EIR, and various runway improvement project studies, all assuming operations at 78.9 MAP). In fact, LAWA states that the current Noise Exposure Map, which provides the basis for residential noise mitigation required by state law, assumes even lower passenger operations than LAWA expects to exceed this or next year, at approximately 77.1 MAP. *Id.* at G-4; *see id.* at G-19 (comments of City of El Segundo on Draft Noise Exposure Map Report, requesting explanation of passenger forecast assumed for NEM update).

Thus, although LAWA might be tempted to modify the DEIR to assert that aviation noise impacts resulting from the Project would be adequately addressed by

existing mitigation adopted as part of the Master Plan, that approach would fail because those measures were not designed to mitigate noise from the passenger levels LAWA anticipates by the time the Project is fully built. Because LAWA has not justified its claim that the Project would not cause any impacts related to higher passenger levels, the DEIR must be revised to include an analysis of the aviation noise impacts caused by the Project, not omit any discussion whatsoever of aviation noise impacts.

Finally, the analysis of road traffic noise impacts is fundamentally flawed as a consequence of errors in the DEIR's analysis of transportation impacts. As explained below, the DEIR's analysis of transportation impacts underestimates these impacts for two overarching reasons: first, it assumes the Project has no bearing on future increases in aviation and passenger activity and, therefore, that the increase in vehicular trips in 2024 and 2035 would not be attributable to the Project. Second, the DEIR does not take into account the phenomenon known as "induced travel" or "generated traffic," discussed further below. The noise impact analysis must be revised to reflect road traffic noise impacts from an accurate estimation of vehicular trips, including "induced" vehicular trips, resulting from higher passenger activity caused by the Project.

VII. LAWA Improperly Proposes to Modify LAX's Current Nighttime Curfew on Engine Run-Ups Without Any Environmental Analysis.

The Master Plan calls for development of two ground run-up enclosures ("GRE"). Master Plan Addendum at 2-95, attached hereto as Exhibit O. Moreover, the 2010 Stipulated Variance approved by LAWA, El Segundo, and others provides that LAWA would design two GREs by 2015. *See In the Matter of Noise Variance Application for City of Los Angeles et al.,* Dept. of Transp. Case No. L2010041216 (ordering LAWA to design two GREs), attached hereto as Exhibit P. To date, LAWA has partly designed one GRE and constructed none. Although the LAMP has nothing whatsoever to do with aircraft maintenance or GREs, LAWA has hidden within the Project problematic changes to its policies regarding both.

Currently, LAX's Aircraft Noise Abatement Operating Procedures and Restrictions (Sept. 2010), attached hereto as Exhibit Q, prohibit engine run-ups—regardless of whether they are performed within a GRE—between the hours of 11 p.m. and 6 a.m. unless waived on a case-by-case basis. The DEIR states that "LAWA has committed, as part of the West Aircraft Maintenance Area Project, to restrict high-powered engine run up testing during nighttime hours; this policy would also be incorporated." DEIR at 7-3. However, LAWA is actually proposing to amend the LAX Plan (Appendix C) to state: "Continue to restrict high-powered engine run-up testing

during the hours of 2300-0600, unless performed in a GRE." Appendix C (LAX Plan redline) at 15.

The unavoidable implication of this language is that if LAMP is approved, any number of high-powered engine run-up tests could proceed at any time (including late at night/early in the morning, when people are trying to sleep) as long as they are performed in a GRE (once built). This amendment would be a substantial change to how ground run-ups can be performed at LAX, yet LAWA's explanation of the proposed change in the DEIR does not make this clear and would likely expose area residents to more noise. Moreover, the proposed change bears no apparent relationship to airport ground access or the ground access improvements proposed as the LAMP. The only apparent explanation for the change is that LAWA finds the existing rules regarding ground run-ups to be too limiting and sees LAMP as an opportunity to make the desired modification. The DEIR may not propose such a change without providing any analysis of the noise impacts to El Segundo and other impacted communities associated with the proposed change. As such, the proposed change to existing ground run-up policy cannot be approved in reliance on the DEIR and should be deleted from LAMP.

VIII. The DEIR's Analysis of and Mitigation for the Project's Impacts on Transportation Are Inadequate.

A. The DEIR Relies on Flawed and Unsubstantiated Assumptions to Conclude that the Project Would Cause the Vast Majority of Intersection Operations Outside the Airport to Improve.

The DEIR concludes operations at the majority of intersections would improve under the "2024 With Project" compared with the "2024 Without Project" scenario. DEIR at 4.12-111. The DEIR also finds that the majority of intersections would improve under the "2035 With Project" compared with the "2035 Without Project" scenario. *Id.* at 4.12-131. The validity of these conclusions is questionable for two key reasons. First, as explained above, the DEIR incorrectly asserts that the Project would have no bearing on future increases in aviation and passenger activity and, therefore, that the increase in vehicular trips in 2024 and 2035 would not be attributable to the Project. Second, the DEIR does not take into account the phenomenon known as "induced travel" or "generated traffic." Had the DEIR relied on accurate assumptions, the DEIR likely

would have revealed a substantially greater number of significant impacts at off-airport intersections.[6]

1. The DEIR Fails to Acknowledge that Ground Access Has Been an Obstacle to Increased Passenger Activity.

The DEIR explains that the very essence of the proposed Project is to improve the efficiency of the ground access system at LAX. DEIR at 4.5-32. At the same time, the DEIR asserts that growth in passenger and aviation activity would be unaffected by the Project. There is ample evidentiary support that improvements in ground access at LAX would facilitate the expansion of passenger and aviation activity.

According to the DEIR, the passenger experience for those arriving or departing LAX is often severely compromised by extreme roadway congestion in LAX's central terminal area and on nearby streets. *Id.* at 1-8; 2-1. Indeed, unless they require international flights, at least some percentage of travelers currently seek to avoid trips to/from LAX as a result of this congestion. It is commonly known that if southern California passengers are able to fly at an airport other than LAX, they do so. *See, e.g.*, Trip Advisor webpage (*available at* https://www.tripadvisor.com/Travel-g32655-c160004/Los-Angeles:California:Bob.Hope.Airport.Aka.Burbank.Airport.html), attached hereto as Exhibit R (best way to avoid traffic and crowds of people is to use Burbank's Bob Hope Airport, rather than LAX); FlyerTalk webpage (*available at* http://www.flyertalk.com/forum/southwest-airlines-rapid-rewards/1558208-flying-into-burbank-vs-lax-worth-hassle-changing-planes-phx-2.html), attached hereto as Exhibit S ("[Burbank] is a very easy airport to navigate into and out of. LAX is exactly the opposite").

By increasing roadway capacity at LAX, substantially increasing the amount of parking, and by adding a people mover/connection to public transport, the Project would significantly expand the capacity of the airport's landside access system. In turn, traffic flow would be facilitated and parking at the airport would become less of an obstacle. As a result, visitors who may have avoided LAX or taken shuttle buses in the past now have an incentive to use LAX and to travel to LAX by car.

LAWA itself confirms the relationship between ground access and airport capacity. The 2004 LAX Master Plan explains that the "most constraining component of

[6] As noted earlier, we will submit supplementary comments once our traffic engineer completes his analysis of this section of the LAMP DEIR.

an airport defines the practical capacity of the entire airport." LAX Master Plan at 1-3. LAX is a "complex system made up of components through which passengers and aircraft flow in a sequential order." *Id.* The Master Plan goes on to explain that passengers traveling on local roadways and on-airport roads as they depart or arrive at the airport are part of the airport's complex system. *Id.* Clearly, ground access is currently a significant constraint on the airport's capacity and is a constraint on aviation activity. While the precise number of passengers that would choose to use LAX as a result of the Project is unknown, the DEIR must make a good faith effort to evaluate the relationship between improved landside access and growth in passenger and aviation activity. The document must then evaluate the traffic impacts from the increased passenger activity levels.

2. The DEIR's Failure to Account for Induced Travel Is an Egregious Error.

Again, the underlying purpose of the proposed Project is to relieve ground access congestion at LAX. DEIR at 2-7. The Project includes myriad roadway improvement projects that are intended to increase the capacity of the roadway system on and around the airport, and reduce traffic congestion. There is a direct relationship between increases in roadway capacity and induced vehicular travel.

This relationship is corroborated by the Surface Transportation Policy Project ("STPP") which cites a growing body of research showing that, in the long run, wider roadways actually create additional traffic, above and beyond what can be attributed to population increases and economic growth. *See* Surface Transportation Policy Project, *Build It and They'll Come*, attached as Exhibit T. According to the STPP, 100 percent of additional vehicle miles travelled ("VMT") in Los Angeles County is attributable to "induced traffic." *Id.* This means that increases in roadway capacity actually induce additional traffic—it does not simply "accommodate" existing or predicted traffic.

The California Air Resources Board ("CARB") has also weighed in on the relationship between increases in highway capacity and induced travel. In its recent report entitled "Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions," CARB confirms that increased capacity induces additional VMT. *See* Exhibit U at 3. CARB attributes this phenomenon to the basic economic principles of supply and demand: adding capacity decreases travel time, in effect lowering the "price" of driving; when prices go down, the quantity of driving goes up (Noland and Lem, 2002). *Id.* at 2.

According to CARB, the induced-travel impact of roadway capacity expansion is generally measured with respect to the change in VMT that results from an increase in lane miles, determined by the length of a road segment and its number of lanes (e.g. a two-mile segment of a four-lane highway equates to eight lane miles). Effect sizes are usually presented as the ratio of the percent change in VMT associated with a one percent change in lane miles. The expectation is that this ratio, also called an "elasticity," will be positive: an increase in lane miles will lead to an increase in VMT. An elasticity of 1 or greater means that the new capacity is entirely filled by additional VMT, producing no reduction in congestion. *Id.* at 3.

The proposed Project's increase in parking supply would also facilitate increased vehicular travel as there is a "consequential" connection between the amount of parking and driving. Researchers at the University of Connecticut have found compelling evidence that parking is a "likely cause" of increased driving. *See* "Effects of Parking Provision on Automobile Use in Cities: Inferring Causality," attached hereto as Exhibit V. As parking spots per building area increase, the amount of vehicle use also increases. Similar to induced vehicular travel, the more spaces there are to park, the more people will drive to reach them. In fact, the University of Connecticut researchers determined that as cities added more parking over the years, the share of commuters who drove to work increased. As a city goes from having about 20 parking spaces to 50 spaces per 100 people, the share of commuters driving rises from 60 percent to 83 percent. *Id.* at 7.

The Project would create a net increase of more than 18,000 spots at the two new Intermodal Transportation Facilities ("ITFs") and the Central Terminal Area ("CTA"), including 1,000 new employee-only spots at CONRAC. DEIR at 2-83, -105, -125, -153. Adding almost 20,000 new parking spaces would certainly remove a constraint to traveling by automobile to LAX.

Because the DEIR does not take into account induced travel, it underestimates the increase in traffic that would accompany the proposed Project. Consequently, the DEIR understates the Project's impact on nearby roadways, intersections, and freeways. The DEIR should be revised to accurately account for the traffic that would be generated by the Project and evaluate how this traffic would impact the off-airport roadway system.

B. The DEIR's Analysis of the Project's Construction-Related Traffic Impacts is Sorely Lacking.

One would expect that an EIR's evaluation of a project's construction-related impacts would be commensurate with its size and scope. Given the massive scale of this

construction project and its prolonged duration (18 years!), the DEIR should have comprehensively analyzed its potential to disrupt the local and regional transportation network. Unfortunately, the document's analysis is shockingly deficient. The analysis is hamstrung because it: (1) does not study all of the roadways or intersections that would likely be impacted by the construction activities; (2) focuses largely on the number of vehicular and truck trips that would be generated by construction activities while giving short shrift to how traffic flow would be managed on roadways in and around the airport; and (3) fails to identify mitigation measures capable of effectively minimizing the Project's construction-related traffic impacts.

The DEIR does not address all of the locations where construction of the LAMP would be expected to impact local and regional traffic because the DEIR's s study area barely extends beyond the airport's boundaries. The study area for purposes of analyzing the Project's construction-related traffic impacts is generally bounded by I-405 to the east, I-105 and Imperial Highway to the south, Pershing Drive to the west, and Westchester Parkway, Sepulveda Boulevard, and Howard Hughes Parkway to the north and *includes only 29 intersections*. *See* DEIR Figures 4.12.3-1 and 4.12.3-2, and DEIR pgs. 4.12-202—205. The DEIR's study area for assessing the Project's operational traffic impacts, on the other hand, is substantially larger, covering 183 intersections. *Id.* at 4.12-48 and Figure 4.12-2-1.

The DEIR explains that the geographic scope of the construction traffic analysis's study area was determined by identifying the intersections most likely to be used by construction-related vehicles accessing the Project's construction site. DEIR at 4.12-197, 4.12-202. Because the DEIR focuses largely on the number of construction employee and truck trips and the roads that would be used by these construction-related vehicles, the document arrives at the absurd conclusion that construction of this massive project would cause significant traffic impacts at only *one intersection*, Aviation Boulevard and Century Boulevard. *Id.* 4.12-232. This conclusion is not credible.

While it may be sufficient to focus on construction vehicular trip generation for a land use project such as a subdivision or a shopping center, this type of analysis is not sufficient for assessing impacts of a long term, multi-faceted construction project at one of the nation's busiest airports. About 76,000 vehicles per day entered LAX's central terminal area in 2014-15 and more than 6,000 vehicles enter the airport every hour.[7]

[7] *See* "A Better Flight Plan for LAX: L.A. Controller's Report Warns of Impending Traffic Crisis; Urges Improved Passenger Experience, Business Practices," *available at* http://www.lacontroller.org/lawa (last visited October 10, 2016).

DEIR at 1-2. Certainly one would expect massive traffic jams on roadways and intersections periodically throughout the 18-year construction, especially because the Project includes so much road construction. Over the Project's duration, certain roads would be closed, other roads would be removed, new roads and new lanes would be added, segments of existing roads would be realigned, freeway ramps would be modified, new driveways would be constructed, other driveways would be realigned; and numerous intersections would be improved. DEIR at 4.12-24; 2-181, 182.

Towards the end of the 50-page construction analysis, the DEIR includes a two-page section entitled "Temporary Traffic, Access, and Transit Impacts During Construction." DEIR at 4.12-234. This "analysis" purports to address the effect that construction activities would have on on-Airport and off-airport traffic roadway operations. *See id*. Yet, rather than provide a substantive evaluation, the DEIR's discussion is vague and generic, as evidenced by the following statement:

> To the extent that Project-related construction within the CTA would require temporary lane closures and detours, on-Airport traffic conditions could be impacted. Construction-related impacts to the on-Airport surface transportation system could result in substantial congestion and inconvenience to motorists and pedestrians on a regular or frequent basis.

DEIR at 4.12-237.

Clearly, construction of the Project would cause extensive traffic jams on airport access routes resulting from reduced roadway capacity, limited access to parking garages, reduced parking capacity, and construction vehicles completing with airport travelers for roadway space. The EIR's failure to thoroughly evaluate these impacts is a fatal flaw.

Rather than conduct a thorough analysis, the DEIR identifies a few vague mitigation measures. DEIR at 4.12-238 and 4.12-241. For example, the DEIR calls for the establishment of a task force to monitor traffic conditions and for the eventual preparation of a worksite traffic control plan. *Id*. Unfortunately, the DEIR lacks the required evidentiary support that these measures—which essentially punt the problem to a later date—would even begin to address the complexities and challenges that would accompany this major construction project. Indeed, the DEIR's approach is a "mere expression[] of hope" that LAWA will be able to devise a way around the problems created by construction of this massive Project. *Lincoln Place Tenants Assn v. City of Los Angeles* (2005) 130 Cal.App.4th 1491, 1508. Deferring mitigation without clear performance standards contravenes CEQA's clear requirements. "[F]or kinds of impacts

for which mitigation is known to be feasible, but where practical considerations prohibit devising such measures early in the planning process . . . , the agency can commit itself to eventually devising measures that will satisfy specific performance criteria articulated at the time of project approval." *Sacramento Old City Assn v. City Council* (1991) 229 Cal.App.3d 1011, 1028-29. Here, the DEIR includes no performance standards.

Moreover, given LAWA's current lackluster performance at handling traffic congestion around LAX, there is no evidence that the agency is even capable of effectively mitigating the effects of such a complex construction project. As the Supreme Court explained, "[b]ecause an EIR cannot be meaningfully considered in a vacuum devoid of reality, a project proponent's prior environmental record is properly a subject of close consideration in determining the sufficiency of the proponent's promises in an EIR." *Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal.* (1988) 47 Cal.3d 376, 420. A performance review of LAX, prepared on behalf of the City of Los Angeles Office of the Controller ("LA Controller Report"), determined that LAWA is not prepared to handle the problems created by construction of the LAMP. *See* "Industrial, Economic, & Administrative Survey Report of Los Angeles World Airports" (Feb. 2016), attached hereto as Exhibit W, at 1.77-1.78. The LA Controller Report explains that the lack of an organizational focus on the landside operations appears to be one of the most serious faults with the operations of LAX. No one unit or individual is currently responsible "for coordinating the systems needed to keep traffic flowing during construction." *Id*. The report goes on to explain that LAWA has historically devoted insufficient staffing to manage its landside system, and it lacks the dedicated traffic engineering expertise to properly handle the airport's on-going congestion problems, let alone a project of LAMP's scale and scope. *Id*. at 1.78.

LAWA can and should consider and approve specific mitigation measures that would reduce the Project's construction-related traffic impacts. The LA Controller Report identified numerous actions that LAWA should undertake to manage the disruptions that would inevitably occur during the Project's construction:

- LAWA's Chief Executive Officer should establish a single point of responsibility for day-to-day landside operations (terminal, traffic, and parking).
- LAWA should form a joint-services team that includes Operations, Maintenance, & Emergency Management Group; Law Enforcement & Homeland Security; Traffic, Airports Development Group, and Commercial Development Group to:
  - Plan and execute a coordinated landside operations strategy.

  - Review and update its regulations and operational rules for landside operations.
  - Build on the Airport Response Control Center's capabilities as a powerful platform for data-driven performance management.
  - Begin evidence-based management of landside operations designed to:
    - Ensure rapid response to issues that arise during the service day.
    - Anticipate congestion and wherever possible deploy resources before it occurs.
    - Propose policies and procedures to reduce CTA vehicle congestion in peak periods.
    - Work closely with airlines and other airport tenants to establish and maintain guest service excellence.
- LAWA should increase landside operations staffing levels by:
  - Adding staffing to allow 24/7 coverage of terminal and landside operations.
  - Increasing terminal and landside operations supervisory staff.
  - Providing robust Traffic Officer and Airport Police staffing to carry out flexible manual traffic control during construction.
- LAWA should assign overall APM construction impact coordination on the landside to a single position:
  - LAWA should provide this position with sufficient planning and construction coordination resources to ensure that he/she is able to anticipate and address CTA traffic and parking capacity reductions during construction.
  - This landside management position would have the scope to respond to Construction & Logistics Management plans and immediately react to identified shortcomings in execution.
- LAWA should include in its contract provisions with APM planning, construction, and operations contractor(s) that they:
  - Have significant incentives for maintaining CTA capacity and substantial penalties for reducing it.
  - Provide coordination staffing and performance requirements in APM construction contracts.

- LAWA should conduct periodic reviews of the construction process to learn from successes and failures, with the understanding that it may well be in order to change approaches if existing arrangements prove unworkable or ineffective.
- LAWA should also establish or obtain traffic engineering capability:
  - Traffic engineering should focus on:
    - Developing traffic mitigation plans.
    - Evaluating diversions for shuttle services and taxis/limos/vans and other strategies or systems that might help contain and manage CTA roadway congestion.
    - Conducting needs analyses based on projected traffic levels and designing construction-related diversions. (Note: Another possibility might be to include the needs analysis as part of LAMP in the contractors' specifications.)
  - LAWA should engage traffic engineering expertise, based on a cost-benefit analysis of different options:
    - Option 1: LAWA staff. Recruit and build its own traffic engineering unit.
    - Option 2: LADOT. Retain the services of LADOT through an MOU that would reimburse the department for its expenses in compliance with FAA requirements for revenue use and BOAC action to review and approve such agreements. (Note: LADOT also has technical knowledge and experience in traffic design and control systems. LADOT has jurisdiction over the "upstream" systems that deliver traffic to LAX and some involvement in CTA traffic influx.)
    - Option 3: Private contractor. Retain the traffic engineering services of a private contractor (LAWA should request LADOT to participate on the selection panel if this option is chosen).
- LAWA should train airport contract workers regarding Guest Experience initiatives, including wayfinding during construction.
- LAWA should increase existing staffing and systems to ensure that the public is kept informed, preferably well in advance, of significant disruptions to CTA traffic arising from APM construction. *Id.* at 1.79-1.80. LAWA might build on the proven "Carmageddon" model of saturation notices used during the widening of the 405 through Sepulveda pass.

IX. The DEIR Fails to Properly Analyze or Mitigate the Project's Climate Change Impacts.

A. Analyzing Climate Change Impacts Is Required Under CEQA.

The law is clear that lead agencies must thoroughly evaluate a project's impacts on climate change under CEQA. *See Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 89-91. In 2007, the state Legislature passed Senate Bill 97, which required the Governor's Office of Planning and Research to prepare guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions as required by [CEQA], including, but not limited to, effects associated with transportation or energy consumption." SB 97 (2007), codified as Pub. Resources Code § 21083.05. Consistent with this mandate, the state Natural Resources Agency adopted revisions to the CEQA Guidelines that require lead agencies to determine the significance of a proposed project's greenhouse gas emissions. Guidelines § 15064.4.

B. The DEIR's Perfunctory Climate Change Analysis Fails to Inform the Public and Decisionmakers About the Project's GHG Emissions.

The DEIR's discussion of the Project's contribution to climate change fails to achieve CEQA's most basic purpose: informing governmental decisionmakers and the public about the potential significant environmental effects of a proposed activity. CEQA Guidelines § 15002(a)(1). Among its other flaws, the DEIR: calculates only a portion of the construction-related GHG emissions for which the Project would be responsible; refuses to acknowledge or otherwise analyze GHG emissions that would clearly be caused by the Project's operation; fails to account for GHG emissions beyond 2035 despite the fact that the Project has a more than 30-year lifespan; relies on a faulty methodology that omits GHG emissions from the full distance that Project-related vehicles would travel; fails to adequately analyze conflicts with state and regional GHG reduction plans and policies; and fails to identify mitigation measures to reduce or avoid the Project's contributions to climate change. The DEIR's approach, which ignores science and law, stands in stark contrast to the conscientious treatment of climate change impacts undertaken by other lead agencies throughout the state. LAWA must make substantial modifications to the DEIR's climate change analysis to achieve compliance with CEQA.

1. The DEIR Substantially Underestimates the Project's GHG Emissions.

The DEIR fails to account for all the ways the Project will generate GHG emissions. For the Project's construction-related GHG emissions, the DEIR includes only direct emissions. The DEIR explains that indirect GHG emissions associated with construction activity such as purchased electricity, solid waste disposal, water usage and wastewater disposal were omitted from the Project's inventory because they are *negligible* compared to direct emissions. DEIR at 4.5-6. The DEIR provides no evidence, or even an explanation, as to why LAWA considers the indirect emissions to be negligible.[8] Moreover, even if the indirect construction-related GHG emissions are a fraction of the direct emissions—and there is no evidence that this is the case—this is not a valid excuse for not including them in the inventory. Because GHG emissions are a cumulative global effect, all sources of a Project's emissions must be included in the inventory.

The DEIR also fails to account for all of the Project's operation-related emissions. The analysis does not include transportation-related GHG emissions that would be generated during the entire distance that Project-related vehicles travel to and from LAX. Instead, the analysis focuses on trips occurring near LAX (i.e., only within approximately six miles of the airport). DEIR at 4.5-32. The DEIR explains that it focuses on the emissions from trips within this six-mile radius because these are the trips that would be directly affected by the Project's improvements. *Id*. The DEIR's approach is illogical. The Project's impact on vehicular trips has no bearing on the Project's potential to increase GHG emissions. Vehicles would emit GHG emissions during the entire trip to and from LAX, not just within a six-mile radius of the airport. Indeed, the DEIR recognizes this fact when it discusses the GHG inventory that LAWA estimated for each of its airports, including LAX. The inventory of 1990 GHG transportation-related emissions for LAX "assumed the full distance of vehicle trips to and from the Airport." *Id*. Because LAX attracts travelers from through the southern California region, the vast majority of those travelers would be expected to travel a distance far greater than six miles.

Finally, the DEIR underestimates the Project's increase in GHGs because it underestimates the increase in traffic that would accompany the proposed Project. As discussed above, the DEIR fails to account for all of the Project's vehicular trips because it does not take into account induced travel. An accurate inventory of all of the Project's transportation-related emissions is critical because the transportation sector is one of the

[8] We found no indication that the Project's indirect construction-related criteria pollutant emissions were excluded from the DEIR's air quality analysis, leading one to further question why they were omitted from the GHG analysis. *See* DEIR chapter 4.2, generally.

largest sources of U.S. GHG emissions. In 2014, transportation represented approximately 26 percent of total U.S. GHG emissions. Between 1990 and 2014, GHG emissions in the transportation sector increased more in absolute terms than any other sector (i.e., electricity generation, industry, agriculture, residential, or commercial).[9]

To accurately evaluate the Project's effect on climate change, the EIR must be revised to include indirect construction-related GHG emissions, transportation-related emissions from vehicles traveling the full distance to and from LAX, and emissions from the Project's induced travel. This revised analysis must be transparent in its identification of the Project's GHG emissions. Thus, for the Project's construction-related emissions, the EIR must identify the amount of indirect emissions that would be generated by each source, i.e., purchased electricity, solid waste disposal, water usage and wastewater disposal. For the DEIR's accounting of transportation-related GHG emissions, the DEIR must identify the average trip distance (miles per trip) for arriving and departing airport travelers, the number of forecasted Project-related vehicular trips, and the amount of GHG emissions per vehicle mile for each of those trips. The DEIR must also clearly identify the number of vehicular trips the Project would induce, and include the emissions from these trips in the GHG analysis. Without an accurate accounting of all of the Project's GHG emissions, the DEIR's analysis is incomplete, making formulation of appropriate mitigation impossible.

2. The DEIR Relies on an Improper Methodology in Its Analysis of the "2015 With Project" Scenario.

The DEIR compares the Project's increase in GHG emissions in 2015 with 2015 existing conditions, as if the Project had, hypothetically, been completed in 2015. DEIR at 4.5-27. This analysis includes various emission sources, including autos and trucks. *Id*. Unfortunately, the DEIR relies on faulty methodology when it quantifies the Project's auto and truck-related GHG emissions and, consequently, it appears the DEIR does not accurately identify the Project's transportation-related GHG emissions.

As Table 4.5-5 shows, the DEIR's identification of the Project's GHG emissions from autos and trucks is based on *total traffic volumes on the roadway network*, rather than just LAX-related trip volumes. DEIR at Table 4.5-5, fn. 1. The DEIR states that the authors had to rely on total traffic volumes on the roadway network because "airport-

[9] U.S. EPA Transportation and Climate Website, attached hereto as Exhibit X, *available at* https://www.epa.gov/air-pollution-transportation/carbon-pollution-transportation (last visited November 15, 2016).

related trip volumes for this scenario were not available."[10] *Id*. This methodological error masks the Project's impacts and is particularly problematic because the document asserts that vehicular GHG emissions would *decline* as a result of the Project. *Id*. (emphasis added). Because the DEIR does not isolate Project GHG emissions from background emissions, the DEIR lacks the required evidentiary basis for this conclusion. The revised EIR must identify the Project's transportation-related GHG emissions, together with other Project-related emission sources, and evaluate the effect that these emissions would have on climate change reduction goals.

3. The DEIR Errs By Not Determining Whether the Emissions in 2024 and 2035 Are Significant Project-Related Impacts.

CEQA requires that an EIR must analyze not only a project's direct effects, but also indirect effects that are reasonably foreseeable. CEQA Guidelines §§ 21065 and § 15064(d). Here, it is reasonably foreseeable that the Project will cause increased passenger activity and aircraft operations. This, in turn, will cause GHG emissions to increase substantially. Although the DEIR quantifies the GHG emissions that would be expected to occur in 2024 and 2035, it refuses to attribute these emissions to the Project. The EIR's failure to analyze these indirect impacts of the Project is prejudicial error. *See Plastic Pipe & Fittings Assn. v. California Building Standards Com*. (2004) 124 Cal.App.4th 1390, 1412 (CEQA requires analysis of indirect impacts).

The DEIR relies on the faulty assumption that any changes in emissions from aircraft operations over the 2015 existing conditions are due to increased travel demand and changes in aircraft fleet mixes that are projected to occur by 2024 and 2035, irrespective of the proposed Project. DEIR at 4.5-7. This assertion is illogical. As this letter and the attached Kanafani Report make clear, the extreme levels of traffic congestion that occur on an on-going basis currently act as a constraint on the airport. Once these landside access constraints are removed, passenger activity and associated aircraft operations would be expected to substantially increase. In fact, LAWA is projecting substantial growth in passenger activity: from 74.9 MAP in 2015 to 85 MAP by 2024 and 96 MAP by 2035. DEIR at 4-5.

[10] The DEIR does not explain why airport-related trip volumes could not be obtained. Indeed, Table 4.5-7 (2024 Future With Project Compared to 2015 Existing Conditions) and Table 4.5.-9 (2035 Future With Project Compared to 2015 Existing Conditions) contain 2015 baseline data appears to identify Project-related auto and truck GHG baseline emissions. The DEIR should explain why the 2015 Baseline data for autos and trucks in Table 4.5-5 is substantially different than the 2015 baseline in Table 4.5-7 and Table 4.5-9. *See* DEIR at 4.5-27—31.

The need for a thorough analysis of the Project's indirect effects is not academic. The current maximum operational capacity for LAX is 78.9 MAP, as set forth in the airport's long range planning documents, including but not limited to the 2004 LAX Master Plan, the 2005 LAX Specific Plan, and the 2013 Specific Plan Amendment Study. Because there has been no analysis of the environmental impacts of operational capacity beyond 78.9 MAP, the DEIR is obligated to analyze the increase in GHG emissions that would accompany these increased activity levels. The DEIR cannot simply ignore the increase in GHG emissions associated with this growth, and especially the emissions from aircraft.

Aircraft constitute a huge portion of an airport's emissions. According to a report prepared by the Center for Biological Diversity ("CBD"), aircraft carbon polluting is skyrocketing. *See* Up In the Air—How Airplane Carbon Pollution Jeopardizes Global Climate Goals, CBD, December 2015, attached hereto as Exhibit Y. If commercial aviation were considered a country, it would rank seventh after Germany in terms of carbon emissions. *Id*. at 3. CBD found that:

> [B]y 2050, aircraft emissions re projected to more than triple. Unchecked, between 2016 and 2050 global aviation will generate an estimated 43 gigatonnes of carbon dioxide emissions. That amounts to more than 4 percent of the world's entire remaining carbon budget—the amount of pollution that can still be emitted before catastrophic planetary warming become virtually certain.

Id. at 2.

The DEIR does quantify the increases in GHG emissions in 2024 and 2035 and compares these emissions to 2015 (existing conditions) emissions' levels. The analysis of "2024 Future With Project" to 2015 existing conditions, in particular, identifies a substantial increase in GHG emissions attributable to the Project. *See* DEIR Table 4.5-7, p. 4.5-29. The problem, however, is that the DEIR includes this analysis for "informational purposes only" (*id.* at 4.5-28); it does not undertake this analysis for purposes of determining whether the Project would cause these significant impacts. Consequently, although the Project would result in a significant increase in GHG emissions in 2024, as compared to existing conditions, the DEIR fails to put forth any mitigation measures. This is in direct violation of CEQA as the primary goal of an EIR is to identify a project's significant environmental impacts and find ways to avoid or minimize them through the adoption of mitigation measures or project alternatives. §§ 21002.1(a), 21061.

4. The DEIR's Analysis of 2024 and 2035 Conditions Underestimate the Project's GHG Impacts.

The DEIR's analysis of the "2035 Future With Project" compared to the "2035 No Project" is flawed because it fails to properly analyze the Project's time horizon. The DEIR explains that the lifetime of the Project is 30 years. DEIR at 4.5-6; 4.5-24. By analyzing impacts only through 2035, the DEIR fails to provide the public with a meaningful assessment of the Project's full impact on climate change. The document should have analyzed impacts through at least 2047 (i.e., 30 years past the date that construction would commence which is estimated to be the end of 2017). *Id*. at 2-175. By not including 12 years of emissions, the DEIR substantially underestimates the Project's GHG emissions and the Project's contribution to climate change.

C. The DEIR Fails to Adequately Analyze the Project's Consistency with AB 32.

The Supreme Court has weighed in on appropriate thresholds for GHG emissions. In *Center for Biological Diversity v. California Department of Fish and Wildlife*, the Court affirmed reliance on compliance with AB 32's reduction goals as a valid threshold of significance when used as a "comparative tool for evaluating efficiency and conservation efforts." *Center for Biological Diversity*, 62 Cal.4th 204, 225-28. While the DEIR appropriately acknowledges AB 32, it fails to actually analyze the Project's consistency with this law because it claims it is technically unable to do so.

The GHG reduction target reflected in AB 32 calls for a statewide reduction in GHG emissions to 1990 levels by 2020. The DEIR asserts that while LAWA has estimated 1990 GHG emissions for each of its airports, including LAX, and that LAX's 1990 GHG inventory assumes GHG vehicular emissions from the full distance of vehicle trips to and from LAX, the DEIR includes only those emissions from vehicles traveling within approximately six miles of the airport.[11] DEIR at 4.5-32. The DEIR then explains that, given the differences in key assumptions, a comparison of the Project-related GHG emissions estimated for 2024 and 2035 to the emissions in the 1990 LAX GHG inventory would not provide an appropriate basis for evaluating how the GHG emissions of the Project measure against the GHG reduction targets of AB 32. *Id*. As discussed above, the DEIR errs by not including GHG emissions from the entire trip distance that Project-

[11] The DEIR asserts that this is the appropriate study area because it is the trips occurring within this six-mile distance that would be "directly affected by the Proposed Project improvements." DEIR at 4.5-32.

related vehicles would travel to and from LAX. Once LAWA conducts the analysis in an accurate manner, it will be able to properly assess the Project's consistency with AB 32.

Notwithstanding the DEIR's assertion that it is unable to analyze the Project's consistency with AB 32, the document patches together an analysis and asserts that Project-related emissions in 2024 would be approximately 43 percent greater than 1990 emissions and the Project-related emissions in 2035 would be approximately 48 percent greater than the 1990 GHG emissions.[12] DEIR at 4.5-33. The DEIR determines that the Project would be inconsistent with the GHG reduction target set forth in AB 32 and that this constitutes a significant impact. *Id.* We agree with this inconsistency conclusion.

The DEIR, however, fails to evaluate the Project's emission projections against the emission reduction targets established by AB 32. It is not sufficient to simply state that in 2024, the Project's emissions would be more than 43 percent greater than the 1990 emission levels. The EIR should have disclosed what LAX's 1990 GHG emissions were and then used this figure as the starting point to determine if the LAMP Project does its fair share to comply with AB 32's GHG reduction goals. Then, the EIR should have identified what the Project's emissions would be expected to be in 2020. Because the DEIR does not disclose this information anywhere, it fails to satisfy CEQA's most basic informational purpose. *See* Pub. Res. Code § 21061 ("The purpose of an environmental impact report is to provide public agencies and the public in general with detailed information about the effect that a proposed project is likely to have on the environment.").

D. The DEIR Fails to Adequately Analyze the Project's Consistency with Executive Orders S-3-05 and B-30-15.

In addition to properly analyzing consistency with the reduction goals set forth under AB 32, the DEIR must analyze the Project's consistency with state climate policy as set forth in Executive Orders S-3-05 and B-30-15. Executive Order S-3-05 establishes a long-term goal of reducing California's emissions to 80 percent below 1990 levels by 2050. Executive Order B-30-15 sets an interim target of 40 percent below 1990 levels by the year 2030.

[12] The DEIR does not clearly explain how it arrived at its GHG emission exceedance figures other than stating that emissions were based on MAP levels and EMFAC emission factors. The revised EIR should be transparent in its analyses so that the public and decisionmakers are able to follow each step in the EIR's methodological process.

The DEIR acknowledges Executive Orders S-3-05 and B-30-15, yet it does not analyze the Project's consistency with either directive in any meaningful way. In fact, it contains even less "analysis" than that provided for its discussion of AB 32. The DEIR simply refers to its discussion of AB 32, and states that since the GHG emissions associated with operations of the Project in 2024 and 2035 would not be less than the levels estimated for 1990 conditions, the Project's emissions would exceed the GHG reduction targets in Executive Orders S-3-05 and B-30-15. DEIR at 4.5-33, 34. It goes on to explain that the Project would be inconsistent with these directives; and that these inconsistencies constitute significant impacts. *Id*. As discussed above, these bare, unsupported assertions are not the careful evaluation of potential impacts that CEQA requires.

The DEIR's treatment of these directives is particularly disappointing because the Court of Appeal has recognized that Executive Order S-3-05, designed to meet the environmental objective of climate stabilization, is highly relevant under CEQA. *Sierra Club v. County of San Diego* (2014) 231 Cal.App.4th 1152, 1157 (quoting the California Attorney General).

Other agencies have adopted the Executive Orders as thresholds of significance for long-term projects, including Regional Transportation Plans. For example, in 2015 the San Diego Association of Governments ("SANDAG") used them as a threshold of significance in the EIR for its most recent RTP/SCS. Specifically, Impact GHG-4 of that EIR asked whether the project would "[b]e inconsistent with the State's ability to achieve the Executive Order B-30-15 and S-3-05 goals of reducing California's GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050." *See* SANDAG 2015 RTP/SCS EIR at 4.8-33, attached as Exhibit Z; *see also Cleveland National Forest Foundation v. SANDAG* (November 24, 2014) 231 Cal.App.4th 1056 (Review Granted, 343 P.3d 903).

The SANDAG RTP/SCS EIR evaluated that project's impacts by calculating a 40 percent and 80 percent reduction from the region's 1990 emissions and using those figures as a target reference point for the RTP. It then compared the region's expected GHG emissions in the years 2035 and 2050 to the emissions necessary to meet the Executive Orders' trajectories. It included charts showing that the Plan would not come close to meeting the Executive Orders' goals. It concluded: "Because the total emissions in the San Diego region of 25.5 MMT CO2e in 2035 would exceed the regional 2035 GHG reduction reference point of 14.5 MMT CO2e (which is based on Executive Order-B-30-15 and Executive Order S-3-05), the proposed Plan's 2035 GHG emissions would be inconsistent with state's ability to achieve the Executive Orders' GHG reduction

goals. Therefore, this impact (GHG-4) in the year 2035 is significant." SANDAG 2015 RTP/SCS EIR at 4.8-35. It reached a similar conclusion for the year 2050 goal.

The LAMP DEIR's failure to compare the Project's emissions against the long-term GHG emission reduction policies set forth in Executive Orders S-3-05 and B-30-15 is unlawful, and SANDAG's recent example demonstrates that there is no excuse for the omission. LAWA has access to the state's GHG reduction goals, which reflect the emissions decreases that climate scientists have concluded are needed to provide a 50 percent chance of limiting global average temperature rise to 2° C above pre-industrial levels. The revised EIR should reveal the nature and extent of the Plan's sharp inconsistency with these clear goals.

E. The DEIR Fails to Adequately Analyze the Project's Consistency with the LAWA Sustainability Plan.

The LAWA Sustainability Plan sets goals and actions that LAWA will undertake to implement the initiatives set forth in the Green LA Plan. The Green LA Plan calls for the City to reduce GHG emissions by 35 percent below 1990 levels by 2030. DEIR at 4.5-34. The DEIR explains that the Project would not be consistent with the target GHG reduction level identified in the Green LA Plan and thus would be inconsistent with the LAWA Sustainability Plan. *Id*. Yet, here too, the DEIR does not bother to provide *any* explanation as to how far off course the Project would set LAX from achieving the goals established in its own Sustainability Plan. The DEIR cannot simply identify an impact; it must disclose the severity and extent of this impact. *See, e.g., Berkeley Keep Jets Over the Bay Com. v. Bd. of Port Comrs*. (2001) 91 Cal.App.4th 1344, 1370-71; *Galante Vineyards v. Monterey Peninsula Water Management Dist.* (1997) 60 Cal.App.4th 1109, 1123; *Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 831 (a lead agency may not simply jump to the conclusion that impacts would be significant without disclosing to the public and decisionmakers information about how adverse the impacts would be).

F. The DEIR Lacks the Evidentiary Support that Its Mitigation Measures Would Effectively Reduce Project-Related GHG Emissions to Less-Than-Significant Levels.

Notwithstanding the flaws in the analysis of the Project's GHG impacts, the DEIR concludes that the Project's increase in GHG emissions would be significant. The DEIR

includes two measures intended to reduce the Project's significant GHG impacts.[13] One measure would incorporate solar energy into the LAMP facilities, while the second measure would require the use of renewable diesel fuel in off-road equipment and on-site trucks, *to the extent feasible*. *Id*. at 4.5-59. The DEIR concludes that these two measures would reduce the Project's construction and operational impacts to less-than-significant levels for all impact scenarios. *Id*. 4.5-59—65; 70. The document does not, however, base its conclusions on substantial evidence. To conclude as the DEIR does, that an impact is less than significant, substantial evidence must demonstrate that mitigation measures will reduce an impact to a less-than-significant level. Substantial evidence consists of "facts, a reasonable presumption predicated upon fact, or expert opinion supported by fact," not "argument, speculation, unsubstantiated opinion or narrative." Pub. Res. Code § 21080(e)(1)-(2). Because the DEIR's conclusion of insignificance is premised on unsupported assumptions, it falls far short of this threshold.

For example, the DEIR's measure calling for the use of renewable diesel fuel is vague and directory. Uncertain, vague, and speculative mitigation measures have been held inadequate because they lack a commitment to enforcement. *See, e.g.*, *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173, 1188-89 (holding traffic mitigation fee measure inadequate under CEQA due to vagueness in program for implementing required improvements). Here, the measure simply suggests that LAWA would require the use of diesel fuel "to the extent feasible." DEIR at 4.5-59. Without committing to requiring the use of renewable fuel in construction equipment and trucks, the DEIR may not take credit for any GHG emission reductions. Moreover, the DEIR must identify which construction equipment and trucks would use this fuel, and provide sufficient documentation to allow the public and decisionmakers to verify the projected reductions in emissions. Without this documentation, the DEIR has no basis to conclude that the emission reductions from the use of renewable diesel fuel would be sufficient to offset the Project's increase in construction-related GHG emissions.

The measure calling for the use of solar energy in LAMP facilities is similarly flawed. The DEIR provides no detail as to which LAMP facilities would use solar energy. Nor does it quantify the emission reduction from these facilities. Without this documentation, the DEIR has no basis to conclude that the emission reductions from the

[13] The DEIR also proposes an array of mitigation measures, most of which are intended to mitigate the Project's air quality impacts. DEIR at 4.5-43—58. However, the DEIR explains that because LAWA is unable to quantify the effectiveness of these measures, the document makes no estimate of the air quality or GHG benefit.

use of solar energy would be sufficient to offset the Project's increase in operational GHG emissions.

G. The DEIR Fails to Analyze and Adopt All Feasible Mitigation.

The DEIR acknowledges that the Project's inconsistency with the GHG reduction targets established in state, regional and local plans constitutes a significant and unavoidable impact. DEIR at 4.5-70. If the DEIR had identified adequate mitigation measures as required under CEQA, it could have substantially lessened the Project's increase in GHG emissions. LAWA has a duty to consider other feasible mitigation measures as it may not approve the Project with significant environmental impacts if there are feasible mitigation measures which would substantially lessen those effects (even if they are not completely avoided or reduced to a less than significant level). Pub. Res. Code § 21002.

As an initial matter, LAWA should take all necessary actions to increase transit mode share to the airport. The LAMP is being billed as a project that will create a world-class transportation system connecting LAX to communities and public transportation hubs throughout the Southland. Mayor Garcetti touts the transit benefit of the LAMP as follows: "LAX is our gateway to the world—and by finally bringing rail to the airport, Angelenos and tourists will be able to connect to Los Angeles' world-renowned neighborhoods and attractions without ever stepping foot in a car." *See* Aero Newsletter for the Employees of Los Angeles World Airports.[14] Yet, the reality of the LAMP will not come close to achieving the Mayor's lofty proclamation as the Project is expected to increase transit mode share by only *one* percent! *See* DEIR Tables 4.12.1-1 through 4.12.1-10. It is outrageous that LAWA would spend $5 billion on a transportation project that is expected to result in such a meager increase in transit ridership.

If LAWA were truly committed to increasing transit use to and from LAX, it would have earmarked a large percentage of the Project's $5 billion budget to transit programs and projects. To this end, as mitigation for the Project's significant GHG impacts, LAWA must implement a series of transit-related mitigation measures. LAWA should study the approaches taken at other major airports to increase transit mode share. Leading cities like New York, London, Paris, Frankfurt, Amsterdam, Hong Kong and Shanghai, for example, have all focused on improving "people moving" for some time

[14] *Available at* https://www.lawa.org/uploadedFiles/LAX/pdf/Aero_Newsletter_201602.pdf (last visited November 7, 2016).

now, realizing that their airports have become the center of their region's connectivity.[15] Canada's Vancouver Airport is the national leader for increased transit use to and from the airport. At Paris' Charles De Gaulle airport, passengers have the luxury of many different transit options, which has resulted in only 40 percent of travelers arriving by car. *Id*. To mitigate the LAMP's substantial increase in GHG emissions—and to become a true world-class airport—LAWA must study approaches to increasing transit, commit to funding the necessary transit programs and projects, and establish ambitious mode share targets for 2024 and 2035.

LAWA should also mitigate for the Project's significant climate change impacts by committing to lobby the major airlines to participate in the Aviation Plan recently approved by the International Civil Aviation Organization.[16] Under the Aviation Plan, which is currently voluntary, airlines will buy credits to offset emissions from individual flights. The credits will come from alternative energy installations, forest conservation programs and other projects that prevent some amount of GHG emissions. LAWA could also develop and implement mechanisms to monitor and report current emissions, since this component of the Aviation Plan has yet to be developed. *Id*. LAWA could also establish the criteria to select conservation programs and other projects that will count toward offset credits. *Id*.

Other types of mitigation to reduce GHG emissions have been determined to be feasible. There are additional guidance documents that provide a full suite of GHG mitigation measures. LAWA must review and consider all of the measures listed in these documents in its revised DEIR, and it must adopt all feasible measures in order to reduce the Project's impacts to a level below significance, or as much as feasible:

- Governor's Office of Planning and Research. 2008. Technical Advisory. CEQA AND CLIMATE CHANGE: Addressing Climate Change through California Environmental Quality Act (CEQA) Review, attached hereto as Exhibit CC.

[15] *See* Hillary Marshall, "We Must Prioritize Smarter Transit Options to and from Airports," *Huffington Post* (June 27, 2016), attached as Exhibit AA and *available at* http://www.huffingtonpost.ca/hillary-marshall/airport-transit_b_10700664.html (last visited November 7, 2016).

[16] *See* "Over 190 Countries Adopt Plan to Offset Air Travel Emissions," *The New York Times*, October 6, 2016, attached as Exhibit BB and *available at* http://mobile.nytimes.com/2016/10/07/science/190-countries-adopt-plan-to-offset-jet-emissions.html?emc=edit_th_20161007&nl=todaysheadlines&nlid=66270403&_r=0&referer= (last visited October 7, 2016).

- California Air Pollution Control Officers Association (CAPCOA), "CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act," January 2008.[17] *See generally id.* at Chapter 9.
- CAPCOA, "Quantifying Greenhouse Gas Mitigation Measures: A Resource for Local Government to Assess Emission Reduction from Greenhouse Gas Mitigation Measures," August 2010.[18]
- Attorney General of the State of California, "Addressing Climate Change at the Project Level," January 2010.[19]

X. The DEIR Fails to Adequately Analyze or Mitigate the Project's Air Quality Impacts.

A. The DEIR Underestimates the Project's Air Quality Impacts Because it Does Not Include Emissions From Aircraft or Ground Support Equipment.

Many of the flaws in the DEIR's analysis of the Project's GHG analysis also implicate the air quality analysis. For example, as discussed above, the DEIR inappropriately assumes that the Project would not increase the number of flights or the number of passengers at LAX. DEIR at 4.2-10. This faulty assumption causes the DEIR to substantially underestimate the Project's increase in criteria air pollutant emissions. Specifically, the DEIR's analysis of operational-related air quality impacts only accounts for emissions from automobiles and trucks and stationary and area sources of emissions. DEIR at 4.2-10 and Table 4.2.1-4; *id.* at 4.2-27. It does not account for the increase in emissions from aircraft or the ground support equipment that would occur as a result of LAX's planned growth in passenger activity. The DEIR must take into account emissions from aircraft and ground support equipment as these emissions would be expected to greatly increase with LAX's planned increase in passenger activity.

[17] *Available at* http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA-White-Paper.pdf (last visited October 7, 2016).

[18] *Available at* http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf (last visited October 7, 2016).

[19] *Available at* http://ag.ca.gov/globalwarming/pdf/GW_mitigation_measures.pdf (last visited October 7, 2016).

B. The DEIR Relies on Faulty VMT Assumptions to Conclude the Project Would Result in a Reduction in Criteria Air Pollutants.

The DEIR concludes that the regional air quality impacts associated with operation of the Project (the "2015 With Project" compared to the "2015 Existing Conditions" scenarios) would be less than significant, and that all criteria air pollutant emissions would actually decline as a result of the Project. DEIR Table 4.2.1-9 at 4.2-36. The DEIR asserts that this decline in emissions is because the Project would cause a reduction in VMT. *Id.* The DEIR's technical appendix, however, contradicts the DEIR's VMT assumptions. Appendix F reveals a trend of increasing, not decreasing, VMT. *See* DEIR Appendix F, at PDF pages 724 –728. Specifically, the Appendix identifies 2015 Baseline VMT as 2,107,251; VMT with the Project in 2024 is estimated to be 2,594,506; and VMT with the Project in 2035 is estimated to be 2,568,018. Inasmuch as VMT in 2024 and 2035 would exceed baseline (2015) levels of VMT, the DEIR's assertion that criteria air pollutants would decline as a result of the Project lacks credibility.

Moreover, as we explained in the transportation section of this letter, the DEIR underestimates predicted traffic volumes because it fails to take into account the Project's induced travel demand. Inasmuch as the Project's air quality emissions are dependent on the transportation assumptions, any underestimation of vehicular trips necessarily results in an underestimation of vehicular emissions.

Finally, the DEIR also likely underestimates the Project's increase in criteria air pollutant emissions, because it may not have accounted for all of the vehicular travel to and from LAX. As we explained, the DEIR's GHG analysis does not include GHG emissions generated by vehicles traveling the full distance to and from LAX. Instead, the analysis only accounted for the GHG emissions from vehicular trips within a six-mile radius of the airport. Presumably, the DEIR's air quality analysis relied on the same assumptions as the GHG analysis. If so, the DEIR underestimates the Project's increase in VMT and therefore also underestimates the increase in criteria air pollution generated by these vehicular trips.

XI. The DEIR's Description and Analysis of Potential Future Development, in Particular at the Continental City Site, Is Inadequate Under CEQA.

The LAMP Project includes the potential for approximately 900,000 square feet of future commercial development of LAWA-owned parcels that would be freed up after subdivision and other land reconfiguration undertaken for new LAX ground transportation facilities. During construction, these parcels would be used for laydown

and staging, at least through the first phase of the Project (2024). DEIR at 2-188; 2-191. Thereafter, the DEIR estimates that approximately 300,000 square feet would be used for office space, another 300,000 square feet would be used for hotel accommodation, 200,000 square feet would be used for commercial space, and the remaining 100,000 square feet would be used for a conference center. DEIR at 2-191.

The Project includes entitlements for development of these parcels consistent with the above uses, including proposed amendments to the LAX Plan and LAX Specific Plan necessary to accommodate development. *Id.*at 2-191 through 2-192. Such entitlements include two tract maps, lot line adjustments and "other minor subdivision actions" to reconfigure the parcels where Project components, including the two ITFs and the CONRAC, are proposed to be built. *Id.* at 2-201. The parcels identified for potential future development would be given a new subarea classification of "Airport Landside Support Subarea" under the proposed amendments to the LAX Plan and LAX Specific Plan.

The DEIR states that "additional CEQA project-level environmental review would be conducted, *as necessary*" once individual development projects are proposed on these parcels. DEIR 2-188 (emphasis added). Because these future development projects cannot proceed without the zoning changes associated with the Project, however, they are components of the LAMP Project. Thus the DEIR must describe and analyze these development projects in as much detail as is currently available, rather than postpone this analysis until individual development projects are proposed. Failure to do so amounts to project "segmentation" and is prohibited under CEQA.

Whether a lead agency prepares a "program" EIR or a "project specific" EIR under CEQA, the requirements for an adequate EIR remain the same. Guidelines § 15160. "Designating an EIR as a program EIR also does not by itself decrease the level of analysis otherwise required in the EIR." *Friends of Mammoth v. Town of Mammoth Lakes Redevelopment Agency* (2000) 82 Cal.App.4th 511, 533; see also Guidelines § 15146 (degree of specificity required in program EIR varies not with "program" label, but rather with degree of specificity in underlying activity). Even a program-level EIR must contain "extensive detailed evaluations" of a plan's effects on the existing environment. *See Environmental Planning & Information Council v. County of El Dorado (1982) 131 Cal.App.3d 350, 358* ("*EPIC*"); *see also Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692,723-24 (where the record before an agency contains information relevant to environmental impacts, it is both reasonable and practical to include that information in an EIR).

Here, this analysis must include the full analysis of potential future development that is now missing, including, in particular, an explanation of the proposed temporary and long-term uses for the Continental City site located near El Segundo. While the DEIR states that the Continental City site is identified as a "Regional Center" in the General Plan,[20] and a solitary, unexplained exhibit to the DEIR appears to designate the majority of this site as a "Proposed Cargo Tenant Relocation Area" (DEIR Exhibit 2-46 at 2-157), the document reveals no specifics about LAWA's proposed future use for the site aside from stating it will be used for laydown during construction. The DEIR further violates CEQA by failing to state the "existing conditions" for the site, as required for an adequate analysis of the proposed Project's environmental impacts.

For example, the DEIR does not disclose that, under the approved 2004 Master Plan alternative (Alt. D), LAWA designated the Continental City site for development of an "Intermodal Transportation Center." Master Plan Final EIR at 3-81. Under that alternative, the site would have been developed to include 9,127 parking stalls and a link to the proposed Metro Green Line transit station. *Id.* In 2013, LAWA approved the SPAS preferred alternative, under which "Continental City is assumed to remain vacant unless/until another permanent land use is designated for the area separate from the SPAS." SPAS Final EIR at 4-565. The SPAS EIR identified possible future uses for the site as a relocated Airfield Bus Parking Area and Operations Building and/or Construction and Maintenance Division Facilities (*id.* at 2-13); the existing LAX Specific Plan would also permit various airport related commercial and operations uses, while prohibiting "aircraft under power" or residential use.

The DEIR must (a) give a complete an accurate description of the "existing conditions" at the site, under the applicable land use plans, (b) state any proposed future use (beyond construction laydown) for the site, whether as a "Cargo Tenant Relocation Area," or a use consistent with the specific and general plan designations, and (c) analyze the impacts of the propose change in use. CEQA requires that every EIR be detailed, complete, and reflect a good faith effort at full disclosure. CEQA Guidelines § 15151. The document should provide a sufficient degree of analysis to inform the public about the proposed project's adverse environmental impacts and to allow decisionmakers to make intelligent judgments. *Id.* Consistent with this requirement, the information regarding the project's impacts must be "painstakingly ferreted out." *EPIC*, 131 Ca1.App.3d at 357.

[20] The DEIR states that "Regional Center" means "focal point of regional commerce, identity, and activity that contains a diversity of uses," and "should generally be developed at a density of 1.5:1 to 6.0:1 floor-area ratio ["FAR"] and to a height of 6 to 20 stories." DEIR at 4.8-15.

XII. The DEIR Should Include Analysis of a "Constrained Growth" Alternative.

As we recommended in our comments on the NEPA Scoping Document, because a legally adequate analysis of the impacts of induced growth caused by the Project would show noise, air quality and climate change impacts far above levels considered acceptable, LAWA should analyze a constrained growth alternative whereby the proposed Project would accommodate passenger levels up to some number at or below 82.9 MAP, the low end of the range forecast for LAX in the 2040 RTP/SCS. The DEIR responds to this recommendation by claiming that such an alternative would be infeasible because it would violate the Airport Noise and Capacity Act of 1990 ("ANCA"). DEIR at 5-19 through 5-20. This is a mischaracterization of ANCA. While ANCA and prior federal aviation law prohibit unreasonable, arbitrary or discriminatory constraints on access to airports, such laws do not require airport operators such as LAWA to *build* access-improvement projects or other projects to expand capacity. Once LAWA revises the DEIR consistent with the comments in this letter, thereby providing the legally required disclosure of environmental impacts associated with the Project, it will become clear that the Project would have substantially greater environmental impacts (particularly to air quality, climate change and noise) than the DEIR currently anticipates. To address this, LAWA should evaluate a "constrained capacity" (or more modest growth) alternative that would not constrain present operations but nonetheless would result in less growth (and thus fewer overall, and less significant impacts) than the proposed Project.

XIII. The DEIR Must Adequately Describe and Address the Impacts of Construction Haul Routes and Staging for the Project.

The DEIR indicates that laydown for construction will occur at the Continental City site, just north of El Segundo's border. Roughly one-third of Imperial Highway along the border with El Segundo is proposed to be used as a construction haul route. The impacts from both of these construction-related uses must be adequately analyzed in the DEIR. Presently, the DEIR does not indicate how long the Continental City site would be used for laydown, or disclose any site-specific impacts related to this use, including impacts from noise or truck-traffic ingress and egress. The DEIR's noise analysis also omits any analysis of noise impacts from use of Imperial Highway as a truck haul route. Indeed, the noise measurement locations identified in the noise analysis, used to establish the environmental baseline for construction noise, do not include any locations on the border with El Segundo, despite the fact that hauling and laydown will occur immediately adjacent to the City. DEIR Figure 4.9.3-1 at 4.9-29.

Considering El Segundo's longstanding concerns related to noise and traffic impacts generated by uses at the airport's southern edge, the City urges that the proposed construction staging be located away from El Segundo. At the very least, the City expects all potential impacts from construction staging, and truck hauling, to be thoroughly analyzed and mitigated in the DEIR. The City also repeats its longstanding request that LAWA include pavement reconstruction on Imperial Highway as a mitigation measure.

XIV. Conclusion

In sum, LAWA should take no action to approve the Project until it has addressed the significant deficiencies in the DEIR and the recommendations discussed in this letter. It should also remove from the LAMP those unrelated, unnecessary and problematic elements identified in this letter.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP

Osa L. Wolff

Laurel L. Impett

Joseph D. Petta

List of Exhibits (*due to combined size of exhibits, all exhibits are provided on the enclosed CD, unless otherwise indicated*)

A LAX Master Plan

B LAX Master Plan EIR

C LAX Specific Plan Amendment Study ("SPAS") Report

D SPAS EIR

E LAX Specific Plan

F LAX Midfield Satellite Concourse North Project EIR

G Memorandum by Adib Kanafani, Ph.D., N.A.E. (*attached hereto*)

H Eno Center for Transportation, "Addressing Future Capacity Needs in the U.S. Aviation System," Nov. 2013

I Southern California Association of Governments 2040 RTP/SCS, Aviation & Airport Ground Access Appendix

J LAX Terminals 2 & 3 Project Notice of Preparation of an EIR and Initial Study

K Alliance for a Regional Solution to Airport Congestion (ARSAC) and LAWA Memorandum of Understanding

L FAA Advisory Circular 150/5070-6B

M 2014 Annual Progress Report, LAX Master Plan Mitigation Monitoring & Reporting Program

N LAX Final Noise Exposure Map Report (August 2015)

O LAX Master Plan Addendum

P *In the Matter of Noise Variance Application for City of Los Angeles et al.,* Dept. of Transp. Case No. L2010041216

Q LAX Aircraft Noise Abatement Operating Procedures and Restrictions (Sept. 2010)

R Trip Advisor Webpage, *available at* https://www.tripadvisor.com/Travel-g32655-c160004/Los-Angeles:California:Bob.Hope.Airport.Aka.Burbank.Airport.html (last visited November 15, 2016)

S FlyerTalk Webpage, *available at* http://www.flyertalk.com/forum/southwest-airlines-rapid-rewards/1558208-flying-into-burbank-vs-lax-worth-hassle-changing-planes-phx-2.html (last visited November 15, 2016)

T Surface Transportation Policy Project, *Build It and They'll Come*

U California Air Resources Control Board, "Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions," Sept. 30, 2014.

V McCahill et al., "Effects of Parking Provision on Automobile Use in Cities–Inferring Causality," November 2015.

W City of Los Angeles Office of the Controller, "Industrial, Economic, & Administrative Survey Report of Los Angeles World Airports," Feb. 2016.

X U.S. EPA Transportation and Climate Website (last visited November 15, 2016)

Y Center for Biological Diversity, "Up In the Air—How Airplane Carbon Pollution Jeopardizes Global Climate Goals," December 2015

Z San Diego Association of Governments 2015 RTP/SCS EIR (excerpt)

AA Hillary Marshall, "We Must Prioritize Smarter Transit Options to and from Airports," *Huffington Post* (June 27, 2016)

BB "Over 190 Countries Adopt Plan to Offset Air Travel Emissions," T*he New York Times* (October 6, 2016)

CC Governor's Office of Planning and Research, Technical Advisory, "CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review," 2008.

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Exhibit G

(Exhibits A—F and H—CC are provided on enclosed CD)

LAMP-AL00008

Comments on the
Draft Environmental Impact Report (DEIR) of the LAX Landside Access Modernization Program (LAMP)

Traffic Growth and Capacity Issues

The DEIR for the LAX Landside Access Modernization Program (LAMP) fails to adequately assess the growth impacts of the program on aviation activity levels, including air passengers, flight operations, and ground access traffic, and to provide mitigation measures for such growth. It assumes that the growth in aviation activity is unaffected by the program and that the same levels of activity will materialize regardless of whether the program is implemented or not. The DEIR states that airport access constraints do not affect aviation activity.

1. **Capacity Issues**: The airport is a group of components operating in sequence to accommodate traffic/passenger flow (access system-terminals-gates-airfield-airspace). Each of these components is a link in a chain and has a capacity. The lowest capacity of these links constrains flow and determines the capacity of the whole system. This was recognized by the LAX 2004 Master plan which stated: "The most constraining component defines the capacity of the entire airport". The 2004 master plan considered an unconstrained demand forecast of 98 MAP in 2015 and evaluated four alternative configurations and estimated the airport capacity for each using the principle that this capacity is constrained by that of the lowest capacity component. The four alternatives considered were:

    a. No Action No Project:
        i. Capacity of 78 MAP
        ii. constrained by the Curb and Roadways.
    b. Alternative A &B including 5th runway, increased gates, and Landside Improvement (LAMP):
        i. Capacity 97.9 MAP
        ii. constrained by 5-runway airfield.
    c. Alternative C including increased gates and LAMP improvements, but only 4 runways:
        i. Capacity 89.6 MAP
        ii. constrained by 4-runway airfield.
    d. Alternative D including LAMP improvements and limited to 153 gates:
        i. Capacity 78 MAP
        ii. constrained by gates as well as curb and roadways.

    The DEIR therefore contradicts the 2004 Master Plan which recognizes the fact that the curb and roadway (access system) can constrain airport capacity and consequently hinder growth, and that LAMP improvements will relieve this constraint and permit aviation activity to grow toward the capacity constrained by the next barrier to growth.

LAMP-AL00008

As shown in section 4.12.2-5 the ground traffic analysis contained in the DEIR is based on aviation activity levels of 86 MAP in 2024 and 95 MAP in 2035. These levels of activity could not be accommodated with the access system in its existing condition with its capacity of 78 MAP as determined in the Master Plan.[1]

2. **Demand Forecasting Issus**: In section 6.3.2 the DEIR maintains that the demands forecast will materialize with or without the proposed project. It quotes the FAA 2014 Terminal Area Forecasts as based on local and national economic conditions "independent of the ability of the airport and air traffic control system to furnish the capacity required to meet the demand". As such the DEIR fails to recognize the difference between "demand" and actual "aviation activity level", and makes an assumption that permits activity levels to exceed available capacities. It is clear that forecast demand levels will not materialize if the capacity is not provided to accommodate them. The DEIR further quotes the FAA as saying that "…existing constraints are "embedded in historical data" used by the FAA as a base for the forecast" and makes the wrong conclusion that there is "no correlation between activity level and existing conditions of the CTA". Existing conditions are reflected in historic data which show activity levels resulting from the interaction of demand and supply, and when the supply is limited the activity level cannot exceed that limit. Historic passenger traffic data at LAX did not, and could not reach beyond the 78 MAP capacity of the curb and roadway system, even if economic conditions created the "demand".

   The LAX Master Plan of 2004, while working in the face of 98 MAP forecast recognized that passenger traffic levels could not exceed 78 MAP unless LAMP improvements were made to release that constraint on capacity. The DEIR does not recognize this and implicitly assumes that activity levels up to the airfield capacity constrain will materialize far exceeding the stated capacity of the curb and roadway system. Such growth cannot occur unless the curb and roadway constraint is removed by the implementation of LAMP.

3. **Airport Market Share Issues**: The Los Angeles metropolitan area is served by a number of airports. In a multi-airport region passengers have a choice among airports. This choice has been the subject of many studies that are well documented in the literature. The ACRP report 98, which is quoted in the DEIR, provides a good summary of the findings on this subject. It identifies the primary drivers of airport choice in a multi-airport market such as: the price, air service

[1] For further information, please refer to "Addressing Future Capacity Needs in the U.S. Aviation System " report by Eno Center for Transportation (November 2013) (https://www.ustravel.org/sites/default/files/Media%20Root/USTravel_Eno_1.pdf), which states: "Ground access to the airport at LAX is the most significant chokehold in the airport's system and according to Los Angeles World Airports (LAWA) airport access infrastructure was projected to hit complete gridlock at 78.9 million annual passengers without improvements to the system. While 78.9 million annual passengers is a precise number [sic], it is accurate enough to mean that adding about 15 million annual passengers above the 62.6 million in 2012 will be too much for the access and gate infrastructure to handle."

LAMP-AL00008

quality, airline/alliance loyalty, and airport ground access. It recognizes airport accessibility as the extent to which passengers can get to the airport from their residence or place of business. This is usually measured by the access time. Numerous studies quoted here and elsewhere recognize the importance of time as a variable affecting airport choice.

LAX remains the primary airport serving the region because of its other service advantages: nonstop flights to more destinations, international connections, wider choice of airlines, etc. But the fact remains that access constraints will affect the airport's share of the market. The ACRP 98 report, concludes based on a the Los Angeles regional case study that[2]:

> *"Surface access issues across most of the regional – Passenger commute times remains a primary passenger choice driver in the Los Angeles Basin. Given the presence of several regional facilities across the area, the traffic situation in the Basin drives the airport choice for a large proportion of travelers".*

To the extent that LAMP improvements will relieve congestion in the CTA and improve travel time for passengers accessing or leaving the LAX terminal area, it will improve LAX's attractiveness relative to other airports in the region and will expand its market shed area. This has been shown to be true repeatedly in airport choice models that have consistently found significant effects of travel time as a factor in airport choice.

Another factor that has been shown to affect passenger airport and mode choice is the travel time reliability. Improving reliability is tantamount to reducing travel time because passengers will need to allow for shorter margins to avoid missing flights. The LAMP improvements will improve reliability by providing regular APM access to the CTA thereby reducing the fluctuations in travel time that arise when congestion is severe.

The DEIR simply dismisses all this by stating that the other factors such as air service quality, flight schedules, price, and loyalty program are the primary factors affecting passenger choice, and that therefore the LAMP improvements will not increase the market share of LAX.

Summary

The DEIR of the LAMP program incorrectly ignores the aviation activity growth effects of the project. It incorrectly ignores the fact that capacity constraints at the curb/roadway access system will limit airport activity, which cannot grow

[2] Parella, B.C. et. al. "Understanding Airline and Passenger Choice in Multi-Airport Regions", Acviation Cooperative Research Program ACRP 98. Transportation Research Board. Washington, D.C., 2013. *https://www.nap.edu/download/22443*

LAMP-AL00008

towards the forecast demand level without the improvements in the access system. LAMP improvements are designed to accommodate activity levels of 86 MAP in 2024 and 95 MAP in 2035, levels that clearly could not be accommodated with the current access system with its 78 MAP capacity.

Furthermore, the DEIR ignores the potential effect of the LAMP improvements on LAX's accessibility attractiveness relative to the other airports in the region and the resulting increase in its share of the regional market.

Recommendation

The DEIR should include a thorough and comprehensive aviation activity modeling analysis to quantify the effect of the LAMP improvements on activity considering regional demand and airport market share. The analysis should evaluate how the reduction in access time and the improvement of access time reliability will improve LAX's accessibility relative to the other airports in the Los Angeles Basin and how that will affect its market share of the total travel demand in the Basin. The aviation activity modeling analysis should also show what effect LAMP will have on passengers' mode choice to LAX and the extent if any to which LAMP will increase public transportation access to the airport. Only with such a thorough and comprehensive analysis would it be possible to assess the aviation activity and environmental impacts of LAMP.

Adib Kanafani

Professor of the Graduate School, University of California at Berkeley.
Kanafani holds a Ph.D. in Civil Engineering from the University of California at Berkeley. Since joining the faculty at Berkeley in 1971 he has taught and conducted research on transportation systems, transportation engineering, airport planning and design, and air transportation economics. He has served on a number of national and international advisory panels to Government and industry. He was Director of Berkeley's Institute of Transportation Studies from 1982 to 1997, and Chairman of the Department of Civil and Environmental Engineering from 1997 to 2002, and Co-Director of the National Center of Excellence in Aviation Operations Research from 2001 to 2005. Kanafani's important contributions to air transportation include air transportation demand analysis, airport capacity analysis methods, and airline network analysis. His research on airline hubbing and on the relation between aircraft technology and airline network structure laid the ground for much of the work aimed at understanding the implications of airline deregulation in the late 1970's. He was a member of the research team that developed airport capacity analysis methods that are in widespread application in airport planning and design. Professor Kanafani has authored over 170 publications on transportation, including three books on Transportation Demand Analysis, on National Transportation Planning, and on the Economics of Networked Industries. He is a recipient of numerous including election to the U.S. National Academy of Engineering in 2002. He served as Chair of the Air Transport Division of the American Society of Civil Engineers, and as chair of the Transportation Research Board of the National Academies in 2009 and was named a Lifetime Associate of the National Academies in 2012.

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Exhibit A

LAX Master Plan

A photocopy of Exhibit A on the CD enclosed with the November 15, 2016 comment letter on the Draft EIR submitted by Shute, Mihaly & Weinberger LLP is available for review at LAWA Environmental Programs Group, One World Way, Room 218, Los Angeles California, 90045, or electronically on LAWA's website at:
http://www.lawa.org/ourLAX/Pastprojects.aspx?id=8844.

Appendix B

LAX Master Plan EIR

A photocopy of Exhibit B on the CD enclosed with the November 15, 2016 comment letter on the Draft EIR submitted by Shute, Mihaly & Weinberger LLP is available for review at LAWA Environmental Programs Group, One World Way, Room 218, Los Angeles California, 90045, or electronically on LAWA's website at:
http://www.lawa.org/ourLAX/Pastprojects.aspx?id=8844.

Appendix C

LAX Specific Plan Amendment Study ("SPAS") Report

A photocopy of Exhibit C on the CD enclosed with the November 15, 2016 comment letter on the Draft EIR submitted by Shute, Mihaly & Weinberger LLP is available for review at LAWA Environmental Programs Group, One World Way, Room 218, Los Angeles California, 90045, or electronically on LAWA's website at: http://www.lawa.org/LAXSPAS/Reports.aspx.

Exhibit D

SPAS EIR

A photocopy of Exhibit D on the CD enclosed with the November 15, 2016 comment letter on the Draft EIR submitted by Shute, Mihaly & Weinberger LLP is available for review at LAWA Environmental Programs Group, One World Way, Room 218, Los Angeles California, 90045, or electronically on LAWA's website at: http://www.lawa.org/LAXSPAS/Reports.aspx.

Exhibit E

LAX Specific Plan

Los Angeles International Airport

LAX Specific Plan

Ordinance No. 176,345
Effective January 20, 2005

As amended by Ordinance Nos. 179,148 (eff. 9/29/2007) and 182,542 (eff. 7/3/2013).

Activity Log

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LAX Specific Plan

Appendix A

A part of the General Plan – City of Los Angeles
http://cityplanning.lacity.org (General Plan – Community Plans – Specific Plans)

LOS ANGELES INTERNATIONAL AIRPORT
ACTIVITY LOG

ADOPTION DATE	PLAN	CPC FILE NO.	COUNCIL FILE NO.
December 14, 2004	LAX Plan	CPC-2003-4647	00-1774-S4
December 14, 2004	LAX Specific Plan (Ordinance No. 176,345, effective January 20, 2005)	CPC-2003-4647	00-1774-S4
May 13, 1992	Los Angeles Airport/El Segundo Dunes Specific Plan (Ordinance No. 167,940, effective June 28, 1992)	CPC-30014	80-4283

ADOPTION DATE	AMENDMENT	CPC FILE NO.	COUNCIL FILE NO.
September 29, 2007	LAX Specific Plan Amendment (Ordinance No. 179,148, effective September 29, 2007)	CPC-2007-3169	07-0541-S1
May 24, 2013	LAX Plan Amendment	CPC-2012-3357	13-0285
May 24, 2013	LAX Specific Plan Amendment (Ordinance No. 182,542, effective July 3, 2013)	CPC-2012-3357	13-0285

LOS ANGELES INTERNATIONAL AIRPORT (LAX)

Specific Plan

Ordinance No. 176,345
Effective January 20, 2005

As amended by Ordinance Nos. 179,148 and 182,542 (eff. 7/3/2013).

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Section 9. Airport Airside Sub-Area
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Appendix A. Requirements for Development within the LAX Northside Sub-Area
Map 1 Specific Plan Boundary Map
Map 2 Specific Plan Sub-Areas Map
Map 3 Parcels within the LAX Northside Sub-Area

ORDINANCE NO. 182542

An ordinance establishing a Specific Plan, known as the LAX Specific Plan, within the LAX Plan area.

THE PEOPLE OF THE CITY OF LOS ANGELES DO ORDAIN AS FOLLOWS:

Section 1. ESTABLISHMENT OF THE LAX SPECIFIC PLAN. The City Council hereby establishes the LAX Specific Plan for the area bounded generally by 88th Street, Manchester Avenue, and 91st Street on the north, Imperial Highway on the south, Pershing Drive on the west, and La Cienega Boulevard on the east, as shown on Map 1.

Sec. 2. PURPOSES.

This Specific Plan is intended to:

1. Recognize the uniqueness of LAX as a regional economic engine, an international gateway to the Pacific Rim, and an important public amenity;

2. Provide regulatory controls and incentives for the systematic and incremental execution of the LAX Plan, an element of the General Plan, to provide for public needs, convenience and general welfare as the development of the airport necessitates;

3. Ensure the orderly development of infrastructure consistent with the intensity and design of the LAX Plan by establishing general procedures for development within the Specific Plan Area;

4. Promote the development of a regional airport system in Southern California through an improved regional ground access system;

5. Provide the appropriate zoning regulations for the development of the LAX Plan in conformance with the goals and objectives of other local and regional plans and policies;

6. Ensure the Los Angeles World Airport's ability to operate LAX safely and efficiently throughout implementation of the LAX Plan;

7. Recognize the important relationship between LAX and its neighbors and avoid development impacts to the extent practical and feasible;

8. Protect airport-related and community businesses by providing regulatory controls and incentives consistent with these goals; and

9. Ensure on-going participation in improvements to LAX by appropriate stakeholders – business, labor, community, airline industry trade groups, government – through consultation with stakeholders.

Sec. 3. RELATIONSHIP TO THE LOS ANGELES MUNICIPAL CODE AND OTHER ORDINANCES.

A. The regulations of this Specific Plan are in addition to those set forth in the planning and zoning provisions of the Los Angeles Municipal Code (LAMC), Chapter 1 as amended, and any other relevant ordinances, and do not convey any rights not otherwise granted under the provisions and procedures contained in the LAMC or other ordinances, except as specifically provided in this ordinance.

B. Wherever this Specific Plan contains provisions that establish regulations (including, but not limited to, standards such as densities, uses, parking, signage, open space and landscape requirements), which are different from, more restrictive or more permissive than would be allowed pursuant to the provisions contained in the LAMC or any other relevant ordinances, this Specific Plan shall prevail and supersede the applicable provisions of the LAMC and those relevant ordinances.

C. This Specific Plan shall supersede any and all "T" Tentative and "Q" Qualified classifications applicable to property within the Specific Plan Area prior to the adoption date of this Specific Plan, including those contained in Ordinance No. 159,526. The substance of the conditions in Ordinance No. 159,526 is incorporated in this ordinance as Appendix A and relate to property generally known as LAX Northside.

D. Site Plan Review and "Major" Development Projects Ordinances. Notwithstanding LAMC Sections 16.05 and 12.24 U 14, Site Plan Review and "Major" Development Projects approvals shall not be required within this Specific Plan Area.

E. Specific Plan Procedures. Notwithstanding LAMC Sections 11.5.7 B, 11.5.7 C, 11.5.7 D, 11.5.7 E, 11.5.7 H, and 11.5.7 J, Project Permit Compliance approvals, including modifications, adjustments and interpretations, shall not be required within the Airport Airside and Airport Landside Sub-Areas of this Specific Plan Area.

F. Mini-Shopping Centers and Commercial Corner Development Ordinance. Notwithstanding LAMC Sections 12.22 A 23 and 12.24 W 27, Mini-Shopping Center and Commercial Corner Development approvals shall not be required within this Specific Plan Area.

G. Landscape Ordinance. The provisions of LAMC Sections 12.21 A 6, 12.40, 12.41, 12.42, and 12.43 shall not apply within the Specific Plan Area.

H. Hotels When Located Within 500 Feet of an A or R Zone. Notwithstanding LAMC Section 12.24 W 24, approvals for hotels located within 500 Feet of an A or R Zone shall not be required within this Specific Plan Area.

I. Parking. Where this Specific Plan contains language or standards that require more parking or permit less parking than LAMC Section 12.21 A 4, this Specific Plan shall supersede the LAMC. In addition, the requirements of Los Angeles Ordinance No. 182,386 shall not be required within this Specific Plan Area.

J. Telecommunications. Notwithstanding LAMC Section 12.24 W 49, approvals for Telecommunications Facilities shall not be required within this Specific Plan Area.

K. Kennels When Located Within 500 Feet of a Residential Zone. Notwithstanding LAMC Section 12.24 W 25, approvals for kennels or facilities for the boarding of dogs when located within 500 feet of any residential zone shall not be required within this Specific Plan Area.

L. Citywide Design Guidelines. Any ordinance amending LAMC Section 11.5.4 to require projects to comply with the Citywide Design Guidelines shall not apply within this Specific Plan Area.

Sec. 4. APPLICATION OF SPECIFIC PLAN TO DEVELOPMENT IN SPECIFIC PLAN AREA.

A. Except for the provisions of Section 7, the regulations of this Specific Plan apply to all development located in the Specific Plan Area which requires a grading, building, mechanical, electrical, plumbing and/or sign permit. The provisions of Section 7 apply only to Projects as defined in this Specific Plan.

B. No grading permit, building permit, or use of land permit shall be issued, and no construction shall occur, for any development within the Specific Plan Area unless the Executive Director has approved the proposed development.

Sec. 5. DEFINITIONS. Whenever the following terms are used in this Specific Plan, with the first letter or letters capitalized, they shall be construed as defined in this section. Words and phrases not defined in this section shall be construed as defined in LAMC Section 12.03.

Air Cargo Facility. Buildings, including any associated equipment and vehicles, used for the storage and transport of cargo to and from commercial aircraft.

Airport. An area of land that is used or intended to be used for the landing and taking off of aircraft, and includes its buildings, facilities and ancillary uses, if any.

Airport Airside Sub-Area. That area as shown on Map 2.

Airport Landside Sub-Area. That area as shown on Map 2.

Applicant. Any entity, LAWA or any person, as defined in LAMC Section 11.01, submitting a request for LAX Plan Compliance Review.

Automated People Mover System (APM). A rail or fixed guideway based transportation system or systems that moves passengers to and from the Central Terminal Area to the landside access facilities (CONRAC and ITF) and other mass transportation facilities in an above-grade configuration, and to and from the Central Terminal Area to the Tom Bradley International Terminal and the Midfield Satellite Concourse in a below-grade configuration.

BOAC. The Board of Airport Commissioners of Los Angeles World Airports.

Central Terminal Area (CTA). The primary passenger check-in and processing center and the transition to and from landside facilities (ITF and CONRAC).

CEQA. California Environmental Quality Act.

City Engineer. The City Engineer of the Department of Public Works, Bureau of Engineering, or his or her designee.

Commercial Passenger Vehicle Staging and Holding Area. An area for taxis, rental car company, hotel/motel, door-to-door, and scheduled buses and vans, chartered buses and vans, etc., to wait before picking up passengers.

Consolidated Rental Car Facility (CONRAC). A consolidated facility to accommodate rental car operators at LAX. This facility may include a customer service facility, ready/return garage, rental car storage, and maintenance support.

Executive Director. The Executive Director of Los Angeles World Airports, or his or her designee.

Federal Aviation Administration (FAA). A federal agency charged with regulating air commerce to promote its safety and development, encouraging and developing civil aviation, air traffic control and air navigation, and promoting the development of a national system of airports.

Fixed-Base Operators (FBO). A person, firm or corporation authorized by issuance of a commercial operator's permit to provide aeronautical activities, services or products at the airport for compensation or hire.

Fuel Farm. Facility used for the storage of aircraft jet fuel prior to distribution to the aircraft via hydrant system or fueling trucks.

Intermodal Transportation Facility (ITF). A facility providing remote passenger pick up and drop off areas, public parking, and connections to public transit and other commercial vehicles (i.e. door-to-door shuttles and scheduled buses).

LADOT. The City of Los Angeles Department of Transportation.

LADOT General Manager. The General Manager of the City of Los Angeles Department of Transportation, or his or her designee.

LAMC. Los Angeles Municipal Code.

LAWA. Los Angeles World Airports.

LAX. Los Angeles International Airport.

LAX Master Plan Stakeholder Liaison. A person appointed by BOAC to assist the board and other decision-makers in communicating with the stakeholders regarding LAX Master Plan decisions.

LAX Northside. The development project that is to be built out within the LAX Northside Sub-Area, previously the subject of Ordinance No. 159,526 and a Final Environmental Impact Report.

LAX Northside Sub-Area. That area as shown on Map 2.

LAX Plan. The area plan adopted by City Council as the land use element of the City's General Plan for the airport and LAX Northside.

LAX Plan Compliance Review. A determination issued pursuant to Section 7 of this Specific Plan.

Midfield Satellite Concourse. A component of the terminal facilities located west of the existing Central Terminal Area accessed via the Automated People Mover System. This component includes uses such as passenger waiting areas, aircraft loading and unloading, retail, and airline operations areas.

Mitigation Monitoring and Reporting Program (MMRP). The program adopted by BOAC and City Council for applying, monitoring and reporting with respect to the LAX Plan's master plan commitments and mitigation measures as future site specific improvements and uses contemplated by the LAX Plan are developed. The Board of Airport Commissioners may modify the program in accordance with CEQA.

Navigational Aid (Nav Aid). Any facility used by an aircraft or its pilot for guiding or controlling flight in the air or the landing or takeoff of an aircraft.

Project. The construction, erection, addition to, or structural alteration of any building or structure, or use of building or land, or change of use of building or land located in whole or in part within the Airport Airside or Airport Landside Sub-Areas of the Specific Plan Area.

A Project shall not include the following:

1. Interior or exterior remodeling of a building;

2. The change of use of a building or land, or the relocation of existing uses, if the change of use or relocation: (a) changes the footprint of a building or structure by 10% or less in square feet; or (b) increases the usable floor area by 10% or less;

3. Activity requiring building permits for the alteration of structures solely relating to mechanical, electrical, or plumbing work internal to the structure, fascia, or any combination of these;

4. Signs;

5. Fences/walls, retaining walls, or support structures;

6. The placement of Navigational Aids and any other equipment mandated by the FAA, TSA, or any other governmental agency;

7. Improvements mandated by the FAA, TSA, or any other governmental agency;

8. Airline operation activities;

9. Non-Master Plan Project infrastructure upgrades, airport maintenance activities, and repair of existing facilities approved by BOAC;

10. Temporary uses, for a period not to exceed 120 days;

11. Emergency uses and/or activities in response to safety and security issues (i.e., activities required by heightened security levels or unsafe operating conditions);

12. Special events, as authorized by the Executive Director or BOAC;

13. Notwithstanding LAMC Section 12.23 A 4, the rehabilitation or reconstruction of a conforming or nonconforming building or structure that was damaged or destroyed by fire, flood, wind, earthquake, or other natural or man-made disaster;

14. Any construction required in order to comply with an order issued by the U.S. Department of Transportation, the FAA or the Department of Building and Safety to repair or replace an unsafe or substandard condition;

15. Construction, the value of which is within the jurisdiction of the Executive Director to approve and does not need to be approved by BOAC under Los Angeles Administrative Code Section 10.1.1 and BOAC Resolution No. 19593 or any subsequent amendment; or

16. Security improvements to existing facilities.

Run-up Enclosure. Specialty facility used to test aircraft engines and disperse sound to reduce noise impacts on surrounding areas.

Runway. A defined rectangular area on the airport used to prepare for the takeoff or landing of aircraft along its length.

Specific Plan Area. That area within the heavy dashed lines on Map 1 in this Specific Plan.

Taxiway. A specially designated and prepared surface on an airport, including a taxilane, for aircraft to taxi to and from Runways, hangers, and aircraft parking positions.

Trip. A vehicle trip will be administratively defined by agreement between the General Manager of LADOT and LAWA to include the entrance or exit of a vehicle from airport or airport-related property.

Sec. 6. SAFETY OF AIRPORT OPERATIONS. Notwithstanding any other provision of this Specific Plan, no use, development or activity within the Specific Plan Area may compromise the safety of airport flight operations in any way. Final authority for determining whether airport flight operation safety is compromised rests solely with the U. S. Department of Transportation and the FAA.

Sec. 7. LAX PLAN COMPLIANCE REVIEW.

A. General. The provisions of Subsections B, C, D, E and H of LAMC Section 11.5.7 do not apply to any Projects proposed for construction within the Airport Airside and Airport Landside Sub-Areas of the Specific Plan Area.

B. Prohibition. No grading permit, building permit, or use of land permit shall be issued, and no construction shall occur, on any Project within the Airport Airside and Airport Landside Sub-Areas unless the City Council grants an LAX Plan Compliance approval pursuant to the procedures set forth in this section.

C. Recommendation by Executive Director. The Executive Director shall have the authority to recommend approval, approval with conditions, modification or denial of a

request for an LAX Plan Compliance determination. This recommendation shall be made to BOAC and the City Council pursuant to the procedures set forth in this section after consideration of the traffic generation report and aviation activity analysis required in Subsection G 1 below and following consultation with the LAX Master Plan Stakeholder Liaison.

D. Findings. The Executive Director shall recommend to BOAC that the proposed Project be granted an LAX Plan Compliance approval upon written findings that the Project satisfies each of the following requirements:

1. LAX Plan Consistency. That the Project complies with the LAX Plan, any design guidelines required by the LAX Plan, and all applicable provisions of this Specific Plan; and

2. Environmental Compliance. That the Project has been adequately analyzed in compliance with CEQA, and the applicable master plan commitments and mitigation measures contained in the MMRP (as may be modified by BOAC in accordance with CEQA) or identified in any subsequent environmental review have been incorporated into the Project to the extent feasible.

E. Rights Granted Under LAX Plan Compliance. The issuance of an LAX Plan Compliance approval indicates compliance with the LAX Plan and this Specific Plan, but does not in any way indicate compliance with other applicable provisions of LAMC Chapter I (Planning and Zoning Code), nor with Chapter IX (Building Code).

F. Procedures.

1. The Executive Director shall review a Project for LAX Plan Compliance based upon the following information:

(a) A written description of the Project including location, size, proposed use, and any other pertinent information;

(b) A completed initial environmental study, including a traffic study, where appropriate, or other analysis;

(c) The most recent annual traffic generation report as required in Subsection G 1 below; and

(d) The most recent annual aviation activity analysis as required in Subsection G 1 below.

2. Executive Director's Review.

(a) Upon receipt of a request for review, the Executive Director shall transmit a copy of the written description of the Project and appropriate

documents to the LADOT General Manager, the City Engineer, the Councilmember of the district in which the Specific Plan Area is located and the LAX Master Plan Stakeholder Liaison, and post notice of the application on the LAWA website. The LADOT General Manager and the City Engineer shall submit any written comments concerning parking, driveways, access, circulation, and infrastructure improvements to the Executive Director within 15 working days from the date the documents were received, unless the LADOT General Manager and the Executive Director agree more time is necessary. The Executive Director shall ensure that LAWA communicates with the LAX Master Plan Stakeholder Liaison. The Executive Director shall consider the comments and concerns of the stakeholders as early in the process as reasonable.

(b) The Executive Director shall determine whether the Project complies with the LAX Plan and all applicable provisions of this Specific Plan.

(c) The Executive Director shall determine whether the environmental clearance for the Project complies with CEQA.

(d) If the Executive Director determines that the Project is consistent with the LAX Plan, all applicable provisions of this Specific Plan and with the requirements of CEQA, the Executive Director shall prepare a written report and transmit this report to BOAC for its action on the LAX Plan Compliance request. This written report shall include findings to support the Executive Director's recommendation, the applicable master plan commitments and mitigation measures, the applicable mitigation measures identified in any subsequent environmental review, the applicable traffic improvements and right-of-way dedications, and any conditions of approval that shall be imposed on the Project. As a part of this written report, the Executive Director shall summarize the traffic generation report and aviation activity analysis required in Subsection G 1 below, and the results of the consultation with the LAX Master Plan Stakeholder Liaison. The Executive Director shall also attach the reports submitted by the LADOT General Manager and the City Engineer.

(e) If the Executive Director determines that the Project is not consistent with the LAX Plan and all applicable provisions of this Specific Plan, the Executive Director may direct staff to reconsider the Project, analyze or redesign the Project, or recommend that BOAC seek an amendment to the LAX Plan and/or an amendment or exception to the Specific Plan pursuant to LAMC Sections 11.5.6 and/or 11.5.7 F and G, as appropriate.

3. Notice Requirements for BOAC Hearing. After receipt of the Executive Director's report and recommendation, BOAC shall set the matter for hearing. Notice of the time, place, and purpose of the hearing shall be given in the following manner:

(a) By posting the BOAC meeting agenda in the LAWA offices, on the LAWA website, and on the City of Los Angeles website at least 72 hours prior to the meeting.

(b) For the CTA, ITF, CONRAC, Midfield Satellite Concourse, and APM (except that portion that connects the CTA with Tom Bradley International Terminal and the Midfield Satellite Concourse) Projects, notice shall also be given by sending written notice by First Class Mail at least 15 days prior to the meeting date to: the Department of City Planning; the Department of Building and Safety; the Councilmember(s) of the district in which the Specific Plan Area is located; LADOT; the Bureau of Engineering; the LAX Master Plan Stakeholder Liaison; the Department of Neighborhood Empowerment; the West Los Angeles Area Planning Commission; the president(s) of local neighborhood councils; the Airlines for America trade association, Airlines Airport Affairs Committee, and any other airline industry trade groups identified by the LAX Master Plan Stakeholder Liaison as stakeholders; the LAX Coastal Chamber of Commerce; and local homeowners groups and interested parties who have filed a written request with LAWA.

4. Recommendation by BOAC. BOAC shall recommend to City Council that it approve, approve with conditions, modify or deny a request for LAX Plan Compliance. BOAC shall make the same findings required to be made by the Executive Director, supported by facts in the record. BOAC shall recommend that all appropriate master plan commitments and mitigation measures, the applicable mitigation measures identified in any subsequent environmental review, and any other requirements are included as a condition of the approval.

5. City Council Determination. City Council shall approve, approve with conditions, modify or deny a request for LAX Plan Compliance. The City Council shall make the same findings required to be made by the Executive Director, supported by facts in the record. The City Council shall ensure that all appropriate master plan commitments and mitigation measures, the applicable mitigation measures identified in any subsequent environmental review, and any other requirements are included as a condition of the approval. Except for the Projects referred to as the Intermodal Transportation Facility, Automated People Mover System, and North Runway configuration, if the City Council does not take final action on the application for an LAX Plan Compliance determination within 45 days of receipt from the recommendation from BOAC, the recommendation from BOAC shall become the final decision on the application.

G. Monitoring and Reporting.

1. LAWA shall prepare and submit annual reports to BOAC, the Department of City Planning, LADOT and City Council for the following:

(a) Traffic Generation Report. A traffic report, based on the information required by Section 12 C 1, that identifies the current number of Trips being generated by LAX (inclusive of all three Sub-Areas), the number of Trips anticipated to be generated at the completion of any Master Plan Project(s) in development at the time of the report, the Trips proposed to be generated following the full implementation of the Master Plan as informed by current and Project-based Trip counts, and the number of Trips anticipated to be generated by on-going Master Plan construction activities.

(b) Aviation Activity Analysis. An aviation activity analysis that identifies the current number of passengers, volume of air cargo and aircraft operations served at LAX, and the volume of aviation activity anticipated to be served by on-going Master Plan construction activities. In order to monitor that regional aviation system improvements are taking place in a timely manner, LAWA will also compile aviation activity statistics for other airports in the Los Angeles region for monitoring and reporting purposes. Passengers, volume of air cargo and aircraft operations activity at all airports with scheduled passenger or cargo activity in Los Angeles, Orange, Riverside, San Bernardino and Ventura counties will be compiled in coordination with the Southern California Association of Governments (SCAG). The analysis shall also include the proportion of aviation activity served at each airport in the region.

(c) Mitigation Monitoring and Reporting Program. A status report on compliance with Master Plan commitments and mitigation measures contained in the Mitigation Monitoring and Reporting Program.

2. The first of each annual report required in Subdivision 1 shall be submitted one year following the City Council's approval of the LAX Plan and MMRP, and the last report shall be submitted at the end of the year following completion of any pending Master Plan Project.

H. Additional Study Requirements.

1. Specific Plan Amendment Study. LAWA shall initiate a Specific Plan Amendment Study with corresponding environmental analysis in compliance with CEQA, in the following two circumstances:

(a) If the annual traffic generation report required in Subsection G 1 above, and/or the annual traffic generation report considered together with any Project-specific traffic study, shows that any Master Plan Projects will be generating net new airport peak hour Trips in excess of 8,236 (unless the total Trips for that year are related to construction or phasing impacts).

(b) If the annual aviation activity analysis required in Subsection G 1 above forecasts that the annual passengers for that year are anticipated to exceed 78.9 million.

2. LAX Domestic Passenger and Airline Market Survey/Study. LAWA shall initiate an LAX Domestic Passenger Survey/Study and corresponding Airline Survey/Study, if the annual aviation activity analysis required in Section G 1 above forecasts that the annual passengers for that year are anticipated to exceed 75 million.

(a) LAX Domestic Passenger Survey and Study. LAWA shall conduct a survey and study of LAX domestic passengers (those passengers not flying internationally or connecting to international flights) designed to identify, at a minimum: (i) those LAX domestic passengers with origination or destination locations closer to other commercial airports in the region; (ii) why those domestic passengers chose to fly out of, or into, LAX rather than another commercial airport closer to their location of origin or destination; and (iii) what actions, consistent with federal, state and local laws, LAWA could take to encourage those domestic passengers to use an airport closer to their location of origin or destination for domestic flights.

(b) Airline Survey and Study. Upon completion of the LAX Domestic Passenger Survey and Study described in 2(a) above, LAWA shall conduct a survey and study of airlines then serving the Southern California commercial air travel market designed to identity what action(s), consistent with federal, state and local laws, LAWA could take to encourage those airlines to provide increased domestic service at other airports in the region, particularly those owned or operated by LAWA.

I. LAX Master Plan Stakeholder Liaison. The LAX Master Plan Stakeholder Liaison shall communicate with the stakeholders on Master Plan issues. The LAX Master Plan Stakeholder Liaison shall ensure that notice is provided to the stakeholders at the

earliest reasonable time of initiation of Projects and any Specific Plan Amendment Study.

Sec. 8. LAND USE.

A. Designation of Sub-Areas. The Specific Plan is divided into three Sub-Areas, as shown on Map 2. The Sub-Areas are designated as: Airport Airside, Airport Landside, and LAX Northside.

B. Unified Development. For purposes of applying building ordinances and regulations, as well as the regulations of this Specific Plan, to the Airport Airside and Airport Landside Sub-Areas, these areas may be treated as a unified development (or unified developments).

1. A unified development shall mean an area or development that:

(a) has a combination of functional linkages, such as pedestrian or vehicular connections; and

(b) is composed of two or more contiguous parcels or lots of record, except where divided by a public street (or streets).

2. Before applying building ordinances and regulations to any area or development within the Airport Airside and Airport Landside Sub-Areas, the Department of Building and Safety shall determine whether or not the area or development is a unified development, or part of a unified development, as defined in this subsection. The following provisions may be applied to any area or development determined to be a unified development:

(a) Location of Parking Area. Notwithstanding LAMC Section 12.21 A 4(g), parking to serve the area or development may be located at any location within the Airport Airside and Airport Landside Sub-areas. Further, the provisions of LAMC Section 12.26 E 5 shall not apply;

(b) Floor Area Ratio (FAR). The total buildable area of all parcels may be used to determine FAR;

(c) Building Site. Construction of a building and/or structure may be across common interior property lines;

(d) Driveways, Entry/Exiting, and Drainage. Driveway access, building entry and exiting, and drainage may be across common interior property lines;

(e) Fire Resistance and Opening Protection of Exterior Walls. The requirements for fire resistance and opening protection of exterior walls

are not applicable to the common interior property lines. The property line abutting public roadways or adjacent to properties outside of the boundaries of the unified development is not a common interior property line;

(f) Construction and Maintenance. The construction and maintenance of all buildings, structures, and site improvements within each unified development shall be in accordance with all building ordinances and regulations that would otherwise be applicable if the buildings, structures, and improvements were located on or within a single lot.

C. Yard and Setback Regulations. Notwithstanding the provisions set forth in the LAMC, no front, side, or rear yards or building setbacks are required in the Airport Airside or Airport Landside Sub-Areas. Landscape buffers shall be consistent with any street frontage and landscape guidelines as may be required by the LAX Plan and adopted by BOAC. These landscape buffers shall not be measured from lot lines, but rather from perimeter roadways or as specified otherwise in any adopted street frontage and landscape guidelines. Development in the LAX Northside Sub-Area shall provide setbacks and landscape buffers as specified in Appendix A.

Sec. 9. AIRPORT AIRSIDE SUB-AREA.

A. Purpose. To allow for the safe and efficient operation of airport airfield activities. Aircraft are permitted to operate under power in this Sub-Area, except as prohibited in Subsection D below.

B. Permitted Uses. The following uses shall be permitted in the Airport Airside Sub-Area, also designated as the LAX-A Zone, within the Specific Plan Area, subject to approval by the Executive Director:

1. All of the uses permitted in the C2 Zone, as specified in LAMC Section 12.14, including, but not limited to:

(a) Airline clubs, retail uses, and restaurants;
(b) Aviation school;
(c) Establishments for the sale and service of alcoholic beverages for on-site and off-site consumption shall be allowed as permitted by and pursuant to any applicable procedures set forth in the LAMC;
(d) Incidental retail uses – permanent or temporary retail uses, which may include kiosks and carts; and
(e) Surface and structured parking lots (including those at-grade, above-grade, and subterranean).

2. All of the uses permitted in the M2 Zone, as specified in LAMC Section 12.19, including, but not limited to:

(a) Aircraft under power;
(b) Airline catering and food preparation;
(c) Airline maintenance and support, including but not limited to storage, aircraft engine or airframe repair and testing, and aircraft maintenance shops;
(d) Air Cargo Facilities;
(e) Commercial Passenger Vehicle Staging and Holding Area;
(f) Fixed-Base Operators;
(g) Helicopter operations, including but not limited to helicopter landings and take-offs, helipads, heliports, and helistops;
(h) Navigational Aids and any other equipment mandated by the FAA, TSA, or any other governmental agency;
(i) Run-up Enclosures;
(j) Runways, Taxiways, aircraft parking aprons, and service roads; and
(k) Passenger handling facilities, including but not limited to baggage handling and processing, passenger holdrooms, boarding gates, ticketing, and passenger check-in functions.

3. In addition, the following uses shall be permitted:

(a) Aggregate/asphalt grinding and recycling facility;
(b) Airport police fire arms training facility;
(c) Aircraft rescue, fire fighting and training facilities;
(d) Automated People Mover System, its stations and related facilities;
(e) Compressed Natural Gas/Liquified Natural Gas ("CNG/LNG") stations, central utility plant, and other fueling and energy sources;
(f) Fuel Farm;
(g) Hazardous waste storage;
(h) Hydrogen cell;
(i) Oil drilling for remediation purposes only;
(j) Security-related equipment and facilities;
(k) Surface water runoff treatment plant;
(l) Uses customarily incident to any of the above uses, and accessory buildings or uses;
(m) Uses and operations determined to be of a similar nature, or deemed necessary for the safe and efficient operation of the airport, by the Executive Director; and
(n) All uses requiring a Conditional Use Permit pursuant to LAMC Section 12.24.

C. Prohibited Uses.

The following uses shall be prohibited within the LAX-A Zone:

Any building containing dwelling units.

D. Imperial Terminal Area. The Imperial Terminal Area is the approximately 42.5-acre area north of Imperial Highway between Main Street and California Street, as shown on Map 2. In this area, aircraft maneuvering may be conducted by tug and tow procedures. The use regulations, for both permitted and prohibited uses, specified in this section for the LAX-A Zone shall apply, except the following uses shall be prohibited:

1. Aircraft under power; and
2. Helicopter operations, including but not limited to helicopter landings and take-offs, helipads, heliports, and helistops.

Sec. 10. AIRPORT LANDSIDE SUB-AREA.

A. Purpose. To allow for the safe and efficient operation of airport facilities, the primary function of which is to provide access to the airport and process passengers. Aircraft are not permitted to operate under power in this Sub-Area.

B. Permitted Uses. The following uses shall be permitted in the Airport Landside Sub-Area, also designated as the LAX-L Zone, within the Specific Plan Area, subject to approval by the Executive Director:

1. All of the uses permitted in the C2 Zone, as specified in LAMC Section 12.14, including, but not limited to:

(a) Airline clubs, retail uses, and restaurants;
(b) Aviation school;
(c) Establishments for the sale and service of alcoholic beverages for on-site and off-site consumption shall be allowed as permitted by and pursuant to any applicable procedures set forth in the LAMC;
(d) Rental car operations, including but not limited to vehicle maintenance and car washing;
(e) Incidental retail uses – permanent or temporary retail uses, which may include kiosks and carts; and
(f) Surface and structured parking lots (including those at-grade, above-grade, and subterranean).

2. All of the uses permitted in the M2 Zone, as specified in LAMC Section 12.19, including, but not limited to:

(a) Airline catering and food preparation;
(b) Airline maintenance and support, including but not limited to storage, aircraft engine or airframe repair and testing, and aircraft maintenance shops;
(c) Air Cargo Facilities;
(d) Commercial Passenger Vehicle Staging and Holding Area;
(e) Helicopter operations, including but not limited to helicopter landings and take-offs, helipads, heliports, and helistops;
(f) Navigational Aids and any other equipment mandated by the FAA, TSA, or any other governmental agency;
(g) Passenger handling facilities, including but not limited to baggage handling and processing, passenger holdrooms, boarding gates, ticketing, and passenger check-in functions; and
(h) Service roads.

3. In addition, the following uses shall be permitted:

(a) Passenger pick up and drop off areas;
(b) Automated People Mover System, its stations and related facilities;
(c) CNG/LNG stations, central utility plant, and other fueling and energy sources;
(d) Security-related equipment and facilities;
(e) Uses customarily incident to any of the above uses, and accessory buildings and uses;
(f) Uses and operations determined to be of a similar nature, or deemed necessary for the safe and efficient operation of the airport, by the Executive Director; and
(g) All uses requiring a Conditional Use Permit pursuant to LAMC Section 12.24. Notwithstanding the foregoing, as specified above, all establishments for the sale and service of alcoholic beverages shall be allowed as permitted by and pursuant to any applicable procedures set forth in the LAMC.

C. Prohibited Uses.

The following uses shall be prohibited within the LAX-L Zone:

(a) Aircraft under power; and
(b) Any building containing dwelling units.

Sec. 11. LAX NORTHSIDE SUB-AREA.

A. Purpose. To provide for the redevelopment of land previously used for residential purposes with uses that are consistent with airport needs and neighborhood conditions. This Sub-Area serves as an airport buffer zone for the Westchester community.

B. General. The LAX Northside Sub-Area has fifteen areas – Areas 1, 2, 3, 4A, 4B, 5 through 11, 12A, 12B and 13 – as shown on Map 3.

C. Relationship to Ordinance No. 159,526. The LAX Northside Sub-Area, also designated as the LAX-N Zone, is comprised of property previously entitled under Ordinance No. 159,526. The limitations, including permitted uses, requirements and conditions of development in Ordinance No. 159,526 are incorporated into the Specific Plan as Appendix A. The requirements in Appendix A shall apply to all development in this Sub-Area.

D. Project Permit Compliance Review. The Project Permit Compliance Review procedures set forth in LAMC Section 11.5.7 C shall apply to all projects in the LAX Northside Sub-Area.

E. Design Plan and Guidelines. In addition to Appendix A, projects shall comply with the "Design Plan and Guidelines for LAX Northside" by Albert C. Martin and Associates, dated April 20, 1989, and any amendment adopted by BOAC after that date.

F. Area 13. Notwithstanding the provisions of Subsections C and E above, the requirements in Appendix A and the "Design Plan and Guidelines for LAX Northside" by Albert C. Martin and Associates, dated April 20, 1989, shall not apply to Area 13 of the LAX Northside Sub-Area. Area 13 shall be used for recreational facilities and other public benefit type uses, including child care, children's play area, picnic amenities, athletic fields, parks, libraries, and similar uses.

Sec. 12. TRANSPORTATION REGULATIONS.

A. Right-of-Way Dedications.

1. Right-of-way dedications, or any similar grant of rights to use land for public street purposes, shall be made for any public streets to the satisfaction of the LADOT General Manager and the City Engineer. All dedications shall be in conformance with City of Los Angeles standard street dimensions, unless deemed unwarranted by the LADOT General Manager and the City Engineer based on any environmental review and/or traffic analyses. The LADOT General Manager and the City Engineer may also allow variations from dedications to standard street dimensions if the variation is necessary to assure proper

integration of a dedication into existing on-site conditions. The following public roadways within the Specific Plan Area are designated as major or secondary highways:

(a) 96th Street
(b) 111th Street
(c) Airport Boulevard
(d) Aviation Boulevard
(e) Bellanca Avenue
(f) Century Boulevard
(g) Fallmouth Avenue
(h) Imperial Highway
(i) La Cienega Boulevard
(j) La Tijera Boulevard
(k) Lincoln Boulevard
(l) Pershing Drive
(m) Sepulveda Boulevard
(n) Westchester Parkway/Arbor Vitae Street

2. The use of airspace above a public street shall be permitted so long as the surface elements of that street may be maintained for street purposes.

3. Any roadway within the Airport Airside and Airport Landside Sub-Areas, which is not already designated as a public street, may be designated as an internal airport roadway. The LADOT General Manager's authority in the design of these roadways shall be advisory only, except that the intersection of these roadways with public streets shall be to the satisfaction of the LADOT General Manager and the City Engineer. Maintenance of internal airport roadways shall be the responsibility of LAWA.

B. Required Traffic Improvements - Airport Airside and Airport Landside Sub-Areas Only. A transportation improvements phasing plan shall be prepared by LAWA and approved by the LADOT General Manager that is in conformance with the LAX Plan and the certified Master Plan Final Environmental Impact Statement/Environmental Impact Report, and includes all on-site and off-site improvements as required by the LADOT General Manager. Revisions may be made to the transportation improvements phasing plan in conformance with any subsequent environmental review, or where appropriate, as determined by the LADOT General Manager.

Transportation improvements shall be constructed or suitably guaranteed to the satisfaction of the LADOT General Manager and the City Engineer in connection with individual Projects or development sites as specified in the transportation improvements phasing plan. Prior to the issuance of any final certificate of occupancy in the final phase of the transportation improvements phasing plan, all required improvements in the entire phasing plan shall be funded, completed, or resolved to the satisfaction of the LADOT General Manager. If a proposed traffic mitigation measure does not receive the

required approval, a substitute mitigation measure may be provided subject to approval by the LADOT General Manager, or other governing agency with jurisdiction over the mitigation location, upon demonstration that the substitute measure is equivalent or superior to the original measure in mitigating the Project's significant traffic impact.

C. Project Trip Generation.

1. In an effort to monitor traffic impacts and traffic mitigation measures, LADOT and LAWA shall jointly conduct traffic counts or otherwise determine the traffic impacts of Projects within the Master Plan. The conclusions of these counts and other determinations shall be incorporated into a traffic generation report, which shall be approved by the LADOT General Manager and annually submitted to BOAC, City Council, and the Department of City Planning.

The Master Plan FEIS/EIR forecasts the net new Trips at full build out of the Master Plan, after implementation of mitigation measures, to be no more than 8,236 at airport peak hour. If the annual traffic generation report described above, and/or the annual traffic generation report considered together with any Project-specific traffic study, shows that development of the Master Plan is likely to increase the Trips beyond 8,236, LAWA shall complete the Specific Plan Amendment Study required in Section 7 H of this Specific Plan.

No Specific Plan Amendment Study shall be required if the annual traffic generation report, and/or the annual traffic generation report considered together with any Project-specific traffic study, determines that the net new Trips are anticipated to exceed 8,236 in the airport peak hour, but this increase in Trips will only be temporary until the Project(s) and associated mitigation measures are complete and/or if this increase in Trips is consistent with the number of Trips anticipated to occur during the peak year of traffic impacts as analyzed in the Master Plan FEIS/EIR. In this case, the traffic generation report shall evaluate the effectiveness of future Projects and mitigation measures in ultimately reducing the number of net new Trips to 8,236 in the airport peak hour at build-out of the Master Plan. Any LAX Plan Compliance approval for a Project shall include any conditions necessary to ensure the ultimate reduction. If Trip reduction program measures are recommended, LAWA shall include in future annual reports an analysis of the on-going effectiveness of those measures and, if the Trip reductions are not effectuated, additional measures may be implemented and/or a Specific Plan Amendment Study may be triggered.

2. LAX Northside Sub-Area. As part of the annual traffic generation report, the number of Trips generated by each project shall be documented so that the total number of Trips generated by on-going development is monitored and reviewed by the LADOT General Manager for consistency with the maximum allowable number of a.m. and p.m. peak Trips. LADOT and LAWA shall agree on procedures for this documentation. These counts shall be taken at the expense of the Applicant.

A reduction in the total number of Trips permitted to be generated by development in the LAX Northside Sub-Area, from that which was approved for this area under previous entitlements, is required as a result of the LAX Plan and shall be imposed by way of this Specific Plan.

All projects within the LAX Northside Sub-Area together shall not generate more than 3,922 project-related Trips in the a.m. peak hour (part of the total 6,496 net new a.m. peak hour Trips for the LAX Master Plan) and 4,421 project-related Trips in the p.m. peak hour (part of the total 6,914 net new p.m. peak hour Trips for the LAX Master Plan). The number of Trips generated by a project shall be based on the trip generation rates used in Ordinance No. 168,999 (Coastal Transportation Corridor Specific Plan (CTCSP)) and/or determined appropriate by the LADOT General Manager and on square footages of the proposed project. In conjunction with each application for Project Permit Compliance Review for a project within the LAX Northside Sub-Area, the Applicant shall estimate the number of Trips generated by each project and submit the estimate to the LADOT General Manager for review and approval. This subsection shall not apply to development within Area 13 as shown on Map 3.

D. Automated People Mover System. APM(s) shall be optimally designed and constructed to minimize disruption and vehicle delay on the public roadway and transit system, and shall be elevated above street level wherever possible to minimize at-grade crossing points with public roadways. LAWA shall consult with the LADOT General Manager and the City Engineer early in the design process of the APM.

Any rules and regulations of the Public Utilities Commission of the State of California governing the APM, including but not limited to its design, operation, and maintenance, shall supersede any other provision of this Specific Plan and any building or zoning ordinances to the contrary.

Sec. 13. PARKING REGULATIONS.

A. Requirements – Airport Airside and Airport Landside Sub-Areas Only.

1. It is anticipated that approximately 32,155 off-street parking spaces may be provided at build-out of the LAX Master Plan; however, notwithstanding LAMC Section 12.21 A 4, no more than 35,712 off-street parking spaces shall be provided at build-out of the LAX Master Plan for passengers, visitors, and airport and airline employees. Parking shall be comprised of short-term, long-term, and employee parking spaces.

2. Notwithstanding LAMC Section 12.21 A 4 (g), parking may be located at any location within the Airport Airside and Airport Landside Sub-Areas.
3. Subsections 1 and 2 above shall not apply to off-street parking for visitors and employees of cargo-only facilities and commercial/industrial buildings located within the area bounded by Century Boulevard, Aviation Boulevard, Imperial

Highway and Sepulveda Boulevard, and the area west of Sepulveda Boulevard and north of Imperial Highway. Off-street parking for these cargo-only facilities and commercial/industrial buildings shall be provided in compliance with the provisions of LAMC Section 12.21 A 4 (c). The Executive Director may also permit two or more of these uses to share off-street parking spaces, if the Executive Director determines that a lower total number of parking spaces than would otherwise be required will provide adequate parking for these uses.

B. Requirements – LAX Northside Sub-Area Only. All projects within the LAX Northside Sub-Area shall provide off-street parking as specified in Appendix A and the "Design Plan and Guidelines for LAX Northside" by Albert C. Martin and Associates, dated April 20, 1989, and any amendment adopted by BOAC after that date.

Sec. 14. SIGN REGULATIONS.

A. General Requirements. The Department of Building and Safety shall issue sign permits for any signs otherwise requiring a permit pursuant to Article 6, Chapter IX of the LAMC that are regulated by this Specific Plan. All signs and sign support structures that are erected and maintained on property owned or controlled, in whole or in part, by LAWA shall be reviewed by the Department of Building and Safety pursuant to LAMC Sections 14.4.1, 14.4.2, 14.4.3, 14.4.4 A – 14.4.4 I, 14.4.11 C – 14.4.11 E, 14.4.12 F, 14.4.15, 14.4.16 A, 14.4.16 C, 14.4.16 E, 14.4.18 H, 14.4.18 I, 14.4.19, 91.6201.2.1, 91.6201.3, 91.6202, 91.6204, 91.6205, 91.6205.18, 91.6207, 91.6209, 91.6210, 91.6211, 91.6212, 91.6213, and 91.6216. The Executive Director shall review signs for conformance with all other sign provisions of Article 4.4, Chapter 1 and Article 1, Division 62 of Chapter IX of the LAMC and provide a written approval to the Department of Building and Safety prior to issuance of any sign permit. Types of signs identified in this Specific Plan are defined in LAMC Section 14.4.2. Where materials for signs are not specified in the LAMC, materials shall be approved by the Departments of Building and Safety and Fire. Except for Subsections D and E, the provisions of this Section shall apply only to signs within the Airport Airside and Airport Landside Sub-Areas.

B. Area, Location, Spacing and Height and Review Procedure. Signs shall not be subject to the LAX Plan Compliance Review procedure, but shall be reviewed and approved by the Executive Director prior to issuance of any permit for, or installation of, a sign or sign support structure.

Prior to approving any sign, the Executive Director shall determine if the proposed sign is in conformance with the sign guidelines adopted by BOAC. If the adopted guidelines address area, spacing, location, and height of signs, the Executive Director may only approve a sign if it is consistent with those guidelines. If the guidelines do not address area, spacing, location, and height of signs, then the Executive Director may only approve signs that are consistent with the appropriate area, spacing, location, and height regulations in Article 4.4, Chapter I of the LAMC.

Prior to approving any sign, the Executive Director, after consultation with LADOT, shall also determine that the sign is not a hazard to traffic nor will it result in unsafe freeway exposure.

C. Off-Site, Supergraphic, and Mural Signs. Alteration, redesign or replacement of existing off-site signs, or erection, construction or installation of new off-site signs, supergraphic signs, and mural signs shall be permitted pursuant to the establishment of a sign district as set forth in LAMC Section 13.11.

D. Requirements - LAX Northside Sub-Area Only. Signs within the LAX Northside Sub-Area shall be in compliance with the requirements set forth in Appendix A and the "Design Plan and Guidelines for LAX Northside" by Albert C. Martin and Associates, dated April 20, 1989, and any amendment adopted by BOAC after that date.

E. State and Federally Required Signage. Any signs or sign restrictions mandated by the FAA, TSA, or any other State or Federal regulatory agency shall supersede any other provision of this Specific Plan to the contrary.

Sec. 15. SEVERABILITY. If any provision of this Specific Plan or its application to any person or circumstance is held to be unconstitutional or otherwise invalid by any court of competent jurisdiction, the invalidity shall not affect other Specific Plan provisions, clauses or applications, which can be implemented without the invalid provision, clause or application, and to this end the provisions and clauses of this Specific Plan are declared to be severable.

LAMP-AL00008

Sec. 16. The City Clerk shall certify to the passage of this ordinance and have it published in accordance with Council policy, either in a daily newspaper circulated in the City of Los Angeles or by posting for ten days in three public places in the City of Los Angeles: one copy on the bulletin board located in the Main Street lobby to the City Hall; one copy on the bulletin board located at the ground level at the Los Angeles Street entrance to the Los Angeles Police Department; and one copy on the bulletin board located at the Temple Street entrance to the Los Angeles County Hall of Records.

I hereby certify that the foregoing ordinance was introduced at the meeting of the Council of the City of Los Angeles MAY 14 2013, and was passed at its meeting of MAY 21 2013.

JUNE LAGMAY, City Clerk

By _____ Deputy

Approved MAY 24 2013

_____ Mayor

Approved as to Form and Legality

CARMEN A. TRUTANICH, City Attorney

By _____
KENNETH T. FONG
Deputy City Attorney

Date May 14, 2013

Pursuant to Charter Section 559, I approve this ordinance on behalf of the City Planning Commission and recommend it be adopted . . . .
May 14, 2013
See attached report.
_____
Michael LoGrande
Director of Planning

File No(s). CF No. 13-0285; CPC File No. 2012-3357-GPA-SP

M:\Real Prop_Env_Land Use\Land Use\Kenneth Fong\LAX Specific Plan\City Attorney LAX Specific Plan.7.docx

LAMP-AL00008

DECLARATION OF POSTING ORDINANCE

I, MARIA VIZCARRA, state as follows: I am, and was at all times hereinafter mentioned, a resident of the State of California, over the age of eighteen years, and a Deputy City Clerk of the City of Los Angeles, California.

Ordinance No. 182542 – Establishing a Specific Plan, known as the LAX Specific Plan within the LAX Plan area - a copy of which is hereto attached, was finally adopted by the Los Angeles City Council on **May 21, 2013**, and under the direction of said City Council and the City Clerk, pursuant to Section 251 of the Charter of the City of Los Angeles and Ordinance No. 172959, on **May 24, 2013** I posted a true copy of said ordinance at each of the three public places located in the City of Los Angeles, California, as follows: 1) one copy on the bulletin board located at the Main Street entrance to the Los Angeles City Hall; 2) one copy on the bulletin board located at the Main Street entrance to the Los Angeles City Hall East; 3) one copy on the bulletin board located at the Temple Street entrance to the Los Angeles County Hall of Records.

Copies of said ordinance were posted conspicuously beginning on **May 24, 2013** and will be continuously posted for ten or more days.

I declare under penalty of perjury that the foregoing is true and correct.

Signed this **24th** day of **May, 2013** at Los Angeles, California.

_____
Maria Vizcarra, Deputy City Clerk

Ordinance Effective Date: July 3, 2013 **Council File No.** 13-0285

Rev. (2/21/06)

LAMP-AL00008

APPENDIX A

Requirements for Development within the LAX Northside Sub-Area

1. The subject property shall be used for those principal and accessory uses in development areas as indicated on Map 3, as follows:

   a. Area East of Lincoln Boulevard
   Area 8 – Commercial uses, including office and restaurant uses; and automobile service station.
   Area 9 – Commercial uses, including office and restaurant uses; automobile service station in the western portion only; public automobile parking in the eastern portion only; and an airport view site.
   Area 10 – Public automobile parking.
   Area 11 – Commercial uses, including hotel, office, restaurant, service and retail uses and a movie theater complex.
   Area 12A – Commercial uses, including offices, hotel, restaurant, service and retail uses.
   Area 12B – A commercial golf course, including golf driving tees and ranges and similar commercial golf uses.

   b. Area Between Lincoln Boulevard and Falmouth Avenue (Extended)
   Area 2 – Offices, business park and research and development center.
   Area 3 – Commercial uses, including hotel, offices, restaurant, service and retail uses.
   Area 4B – Light industrial uses, airline and airport support services, including flight kitchens, caterers, ticket reservation centers, custom house brokers, warehouse, airport maintenance and ground services (excluding engine shops), freight forwarders, package delivery services, security services, import/export services and other similar accessory or support services; business park and research and development center; and offices within 400 feet west of the prolongation of Loyola Boulevard on the south side of Westchester Parkway.
   Areas 5, 6 and 7 – Offices, business park and research and development center; airport view site; airline and airport support and accessory uses.

   c. Area West of Falmouth Avenue (Extended)
   Area 1 – Offices, business park and research and development center.
   Area 4A – Light industrial uses, airline and airport support services, including flight kitchens, caterers, ticket reservation centers, custom house brokers, warehouse, airport maintenance and ground services (excluding engine shops), freight forwarders, package delivery services, security services, import/export services and other similar accessory or support services; business park and research and development center; and offices within 400 feet east of Pershing Drive on the south side of Westchester Parkway.

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2. No aircraft or engine run-ups shall be permitted within the project boundaries.

3. The height of structures shall be controlled as follows:

   a. Area 2 – No structure located within 100 feet of the north airport property line between Loyola Boulevard and Hastings Avenue shall exceed three stories (including parking levels) or 45 feet in height measured from the finished grade of the lot. All accessory facilities on the roofs of such buildings, such as air conditioning units and other equipment, shall not be visible from nearby residential properties to the north and are exempted from the height restriction.

   b. Areas 1 and 4A – No structures located within 200 feet of the north airport property line between Falmouth Avenue and Pershing Drive shall exceed three stories (including parking levels) or 45 feet in height measured from the finished grade of the lot. No structure located within Areas 1 or 4A south thereof, shall exceed four stories (including parking levels) or 55 feet in height measured from the finished grade of the lot. All accessory facilities on the roofs of buildings within Area 1, such as air conditioning units and other equipment, shall not be visible from nearby residential properties to the north and are exempted from the height restriction.

4. Structures shall observe minimum setbacks, as follows:

   a. Area 2 – All structures shall observe a minimum setback of 50 feet from the north airport property line between Loyola Boulevard and Hastings Avenue. Open parking areas are permitted within the required building setback area, except as may be modified by required landscape buffer setbacks.

   b. Area 1 – All structures shall observe a minimum setback of 100 feet from the north airport property line between Falmouth Avenue and Pershing Drive. Open parking areas are permitted within the required building setback area, but not within the required landscape buffer setback.

5. Landscaped buffer setbacks shall be required as follows:

   a. Areas 11 and 12A – A 30-foot-wide landscaped buffer setback along 88th Street between Sepulveda Westway and Liberator Avenue shall be required and contain no buildings or structures, except for walls or fences and include trees, 15 gallons and 10 feet tall at the time of planting, planted at a maximum of 30 feet apart, of a type similar to those contained in Section 7 of the Planning Department's Technical Report on "Shrubs and Trees for Landscaping and Screening". Further, a 15-foot-wide landscaped buffer setback along Liberator Avenue and 88th Place

(adjacent to the Emerson Manor School site) shall be required and include a dense screen of closely planted evergreen trees.

   b. Area 2 – A 15-foot-wide landscaped buffer setback along Cum Laude Avenue and 92nd Street (adjacent to the St. Bernard High School site) shall be required and include a dense screen of closely planted evergreen trees.

   c. Area 1 – A 50-foot-wide landscaped buffer setback along the north airport property line between Falmouth Avenue and Pershing Drive shall be required and include low, minimum-view-obstructing shrubs and ground cover (no trees) which are compatible, where appropriate, with adjacent off-airport landscaping.

6. Prior to the issuance of building permits, an on-site roadway/highway construction phasing plan and individual parcel access plan shall be submitted to the Department of City Planning for approval and for coordination and review with LADOT and the Bureau of Engineering.

7. Prior to the recordation of a final tract map covering all or any portion of the subject property and prior to the approval of any variance granting use of any portion of the property before recordation of a final tract map, the Board of Airport Commissioners shall cause to be prepared and shall approve a project design plan, together with developmental guidelines for the entire project area. The primary purposes of the design plan and guidelines shall be to provide future developers with a unifying theme and design handbook and to provide the Department of Airports with a basis for reviewing and coordinating project development plans. The project design plan shall establish a unifying architectural theme, while the elements of the developmental guidelines shall include consideration of: Building design, height, bulk, locations and interrelationships; building materials, colors and textures; public and private area landscaping; public and private signage and graphics; airport view sites; street furniture; exterior lighting; internal pedestrian and vehicular circulation; parking area design; on- and off-airport interfaces; and other design considerations as may be appropriate. The project design plan and developmental guidelines shall be governed by the conditions of approval attached to this change of zone, wherever relevant.

8. The project design plan and developmental guidelines shall treat Area 11 as a single comprehensive planned unit, providing a compatible interface with the existing and potential future uses on the privately owned property adjoining the east side of Sepulveda Westway between La Tijera Boulevard and Will Rogers Street. Convenient pedestrian access to Area 11 shall be provided from Sepulveda Westway and the Sepulveda Westway frontage shall be attractively landscaped. The design of Area 11 shall provide, to the extent practicable and

feasible, for visual continuity and accessibility between Area 11 and the properties on the east side of Sepulveda Westway.

9. All open areas not used for buildings, driveways, parking areas, recreational facilities or walks shall be attractively landscaped in accordance with a landscape development plan prepared by a licensed landscape architect or licensed architect. Approved copies of such plans shall be submitted to the Department of Building and Safety before issuance of a building permit. All landscaped areas shall be equipped with automatic sprinklers and shall be maintained in a first-class condition at all times. All types of plants selected and required watering systems for such landscaping shall, to the extent possible, conserve water and shall be consistent with any water conservation ordinance enacted by the City.

10. All open parking areas located within Area 1 shall devote at least four percent of the parking area to landscaping, with at least three-fourths of the four percent devoted to interior landscaping distributed throughout the parking area.

11. A 6-foot-high chain link fence shall be provided along the airport property line in the following locations: Along Liberator Avenue and 88th Place (adjacent to the Emerson Manor School site in Area 12A); along Cum Laude Avenue and 92nd Street (adjacent to the St. Bernard Senior High School site in Area 2); and between Falmouth Avenue and Pershing Drive (along the north boundary of Area 1).

12. A solid 8-foot-high masonry block wall shall be constructed along the north airport property line between Loyola Boulevard and Hastings Avenue (along the north boundary of Area 2) and trees and tall shrubs shall be planted immediately south of the wall on airport property to provide additional visual screening above the wall. The wall shall be installed and measured in height from the finished grade of the alley between Loyola Boulevard and Rayford Drive and from the finished grade of the adjoining residential lots between Rayford Drive and Hastings Avenue.

13. All development on the property shall provide off-street parking on the following basis: One space for each guest room; one space for each 300 square feet of floor area for office use and for business parks and research and development centers; one space for each 250 square feet of floor area for retail and service commercial uses; 16 spaces for each 1,000 square feet of floor area for restaurants; and not less than three stalls for each four employees on the main shift for light industrial uses. Floor area shall mean the area enclosed within the walls of buildings, exclusive of floor area devoted to off-street parking or accessory areas, as defined under Section 12.21-A, 4 of the Municipal Code. The Director of Planning may modify these parking standards where appropriate to permit reduce parking in mixed-use or joint-use facilities.

14. The hours of operation for trash pickup or freight deliveries or pickup, within 300 feet of the north boundary line of the project, shall be limited to between 7 a.m. and 9 p.m.

15. Adequate protection against exterior noise shall be included in the design and construction of hotels and motels. Adequate protection shall mean a noise reduction (exterior to interior) sufficient to insure that the interior community noise equivalent level (CNEL) in all habitable rooms does not exceed 45dB during aircraft operations.

16. All central air heating and/or air conditioning units shall be installed with an air filtration system (either charcoal or electronic) to improve the air quality effects on the project occupants. This requirement shall not preclude the installation of operable windows for passive or natural heating or cooling opportunities.

17. The use of any outdoor public address or paging system shall be permitted only south of the Westchester Parkway and shall utilize: (1) a low-pressure speaker system with each speaker having an audible range limited to a 400-square-foot area and placed a maximum of 40 feet apart or (2) a sound system designed by a qualified sound engineer so as to reduce the impulse noise level to inaudibility beyond the premises of the establishment.

18. In Areas 1, 2, 4A, 4B, 5, 6, and 7, all buildings and enclosing walls or fences shall be constructed, the machinery and equipment shall be so installed and maintained and the activities shall be so conducted that all noise, vibration, dust, odor and other objectionable factors shall be confined or reduced to the extent that there will be no reduction in the use of property by persons residing adjacent to the subject property. Whenever there is any difficulty in determining the application of these provisions to any specific case, the Department of Building and Safety shall make such determination.

19. All Building Identification Signs shall be designed by the architect of the building or facility. These Building Identification Signs shall be wall signs designed for placement on the face of the proposed building and not projecting above the roof or parapet wall. Except that free-standing Identification or Project Directory Signs not exceeding 50 sq. ft. in area on each face and not exceeding 8 ft. in height may be permitted subject to individual review and approval by the Department of Airports.

20. All lighting shall be directed onto the site and no flood-lighting shall be located as to be seen directly by the adjacent residential areas. This condition shall not preclude the installation of low-level security lighting.

21. All buildings within 100 feet of the north airport property line between Loyola Boulevard and Hastings Avenue shall be designed so that all second-story or higher windows that overlook the adjacent single-family residential homes shall

not be transparent below an eye level of 6 feet on any floor, but shall be translucent; or the building shall be designed in such a way that windows will not overlook the single-family residential properties to the north.

22. Vehicular driveway ingress and egress from the subject property shall be prohibited from Cum Laude Avenue and from 92nd Street (Area 2); from Lincoln Boulevard between Sepulveda Boulevard and the airport property line north of the Westchester Parkway (Areas 6, 7, 8, 9, 10 and 12A); and from 88th Street, Liberator Avenue, 88th Place and Emerson Avenue (Area 12A).

23. In Areas 1, 2, 5, 6, and 7, all activities shall be conducted within an enclosed building. Within Areas 4A and 4B, all outdoor activities shall be located on the southerly side of the buildings and screened from public streets.

24. All Utilities within the project shall be installed underground.

25. All development within the project shall contain trash compactors to reduce the volume of solid waste to be removed from the site.

26. LAWA and individual developers shall develop and implement a transportation system and parking management plan which shall include the following as a minimum:

    a. Individual developers shall encourage public transit use by offering subsidized transit passes to employees.

    b. The Department of Airports shall evaluate the potential for subscription bus service for large concentrations of employees.

    c. Each developer employing 500 or more permanent employees shall provide company-owned vans and/or offer subsidies to individual vanpool operators and encourage the formation of vanpools.

    d. The Department of Airports shall make carpooling information available to building occupants and encourage formation of carpools and vanpools and shall establish a carpool-matching service.

    e. Individual developers shall develop and implement programs to offer preferential parking to carpooling and vanpooling building occupants.

    f. The Department of Airports shall make transit schedules, maps and other transit information available to building employees and users.

    g. To the extent feasible, individual developers shall encourage flexible working hours.

    h. The Department of Airports and each developer employing 500 or more permanent employees shall appoint a rideshare coordinator to administer the functions required by this condition.

27. Prior to major grading of the project site, a rodent control effort shall be undertaken to reduce the existing rodent population within the project area.

28. Developers of individual projects shall take the following steps relative to energy conservation:

    a. Consult with the Los Angeles Department of Water and Power and Southern California Gas Company to determine feasible energy conservation features which could be incorporated into the design of structures, beyond those required by State and City laws.

    b. Utilize, where cost-effective, alternative sources of energy such as solar water and pool heating.

    c. Utilize the Department of Water and Power's energy pre-audits on all new industrial developments.

29. Individual developers shall consult with the Los Angeles Police Department on the provision of security measures for developments, which measures shall include the following at the minimum:

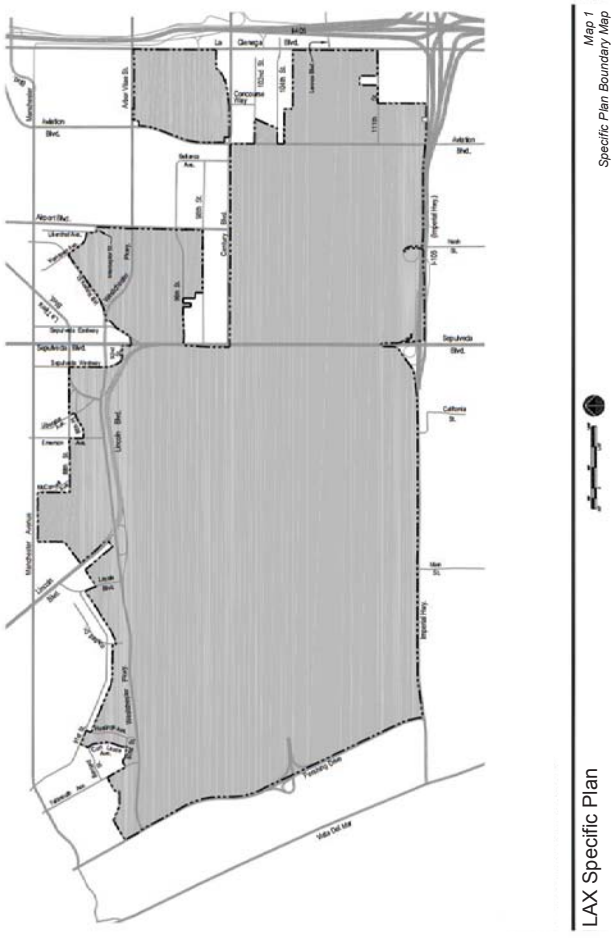
    a. For each developer responsible for 200,000 or more square feet of total floor area (Los Angeles Municipal Code 12.21.1), security guards shall patrol all levels of buildings and access to and from buildings shall be monitored by a security guard on duty during nighttime and weekends.

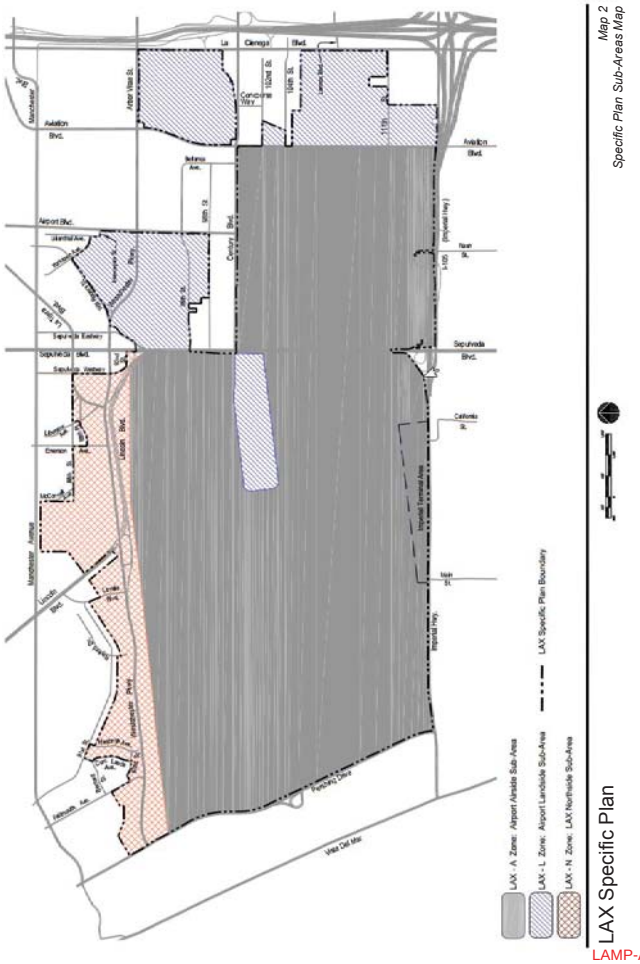
    b. Subterranean parking levels shall be lighted 24 hours a day.

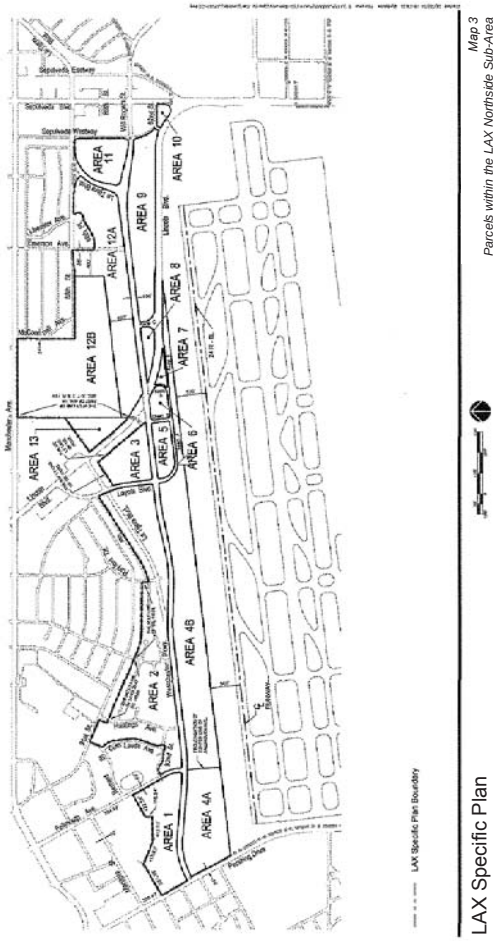
    c. All parking levels, corridors and arcades shall be lighted during the nighttime and weekends.

30. A qualified archaeologist shall be available, as needed, during site grading and subsurface operations, with the authority to assure reasonable measures to insure protection and recovery of significant archaeological resources.

31. All conditions imposed by this action, with the exception of Condition No. 9 relating to a project design plan and development guidelines, may be fulfilled incrementally as individual phases of the subject property are developed.







Map 3
Parcels within the LAX Northside Sub-Area

LAX Specific Plan

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LOS ANGELES INTERNATIONAL AIRPORT (LAX)

Specific Plan

Ordinance No. 176,345
Effective January 20, 2005

As amended by Ordinance Nos. 179,148 and _____

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Map 1 Specific Plan Boundary Map
Map 2 Specific Plan Sub-Areas Map
Map 3 Parcels within the LAX Northside Sub-Area

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ORDINANCE NO. 182542

An ordinance establishing a Specific Plan, known as the LAX Specific Plan, within the LAX Plan area.

THE PEOPLE OF THE CITY OF LOS ANGELES DO ORDAIN AS FOLLOWS:

Section 1. ESTABLISHMENT OF THE LAX SPECIFIC PLAN. The City Council hereby establishes the LAX Specific Plan for the area bounded generally by 88th Street, Manchester Avenue, and 91st Street on the north, Imperial Highway on the south, Pershing Drive on the west, and La Cienega Boulevard on the east, as shown on Map 1.

Sec. 2. PURPOSES.

This Specific Plan is intended to:

1. Recognize the uniqueness of LAX as a regional economic engine, an international gateway to the Pacific Rim, and an important public amenity;

2. Provide regulatory controls and incentives for the systematic and incremental execution of the LAX Plan, an element of the General Plan, to provide for public needs, convenience and general welfare as the development of the airport necessitates;

3. Ensure the orderly development of infrastructure consistent with the intensity and design of the LAX Plan by establishing general procedures for development within the Specific Plan Area;

4. Promote the development of a regional airport system in Southern California through an improved regional ground access system;

5. Provide the appropriate zoning regulations for the development of the LAX Plan in conformance with the goals and objectives of other local and regional plans and policies;

6. Ensure the Los Angeles World Airport's ability to operate LAX safely and efficiently throughout implementation of the LAX Plan;

7. Recognize the important relationship between LAX and its neighbors and avoid development impacts to the extent practical and feasible;

8. Protect airport-related and community businesses by providing regulatory controls and incentives consistent with these goals; and

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9. Ensure on-going participation in improvements to LAX by appropriate stakeholders – business, labor, community, airline industry trade groups, government – through consultation with stakeholders.

Sec. 3. RELATIONSHIP TO THE LOS ANGELES MUNICIPAL CODE AND OTHER ORDINANCES.

A. The regulations of this Specific Plan are in addition to those set forth in the planning and zoning provisions of the Los Angeles Municipal Code (LAMC), Chapter 1 as amended, and any other relevant ordinances, and do not convey any rights not otherwise granted under the provisions and procedures contained in the LAMC or other ordinances, except as specifically provided in this ordinance.

B. Wherever this Specific Plan contains provisions that establish regulations (including, but not limited to, standards such as densities, uses, parking, signage, open space and landscape requirements), which are different from, more restrictive or more permissive than would be allowed pursuant to the provisions contained in the LAMC or any other relevant ordinances, this Specific Plan shall prevail and supersede the applicable provisions of the LAMC and those relevant ordinances.

C. This Specific Plan shall supersede any and all "T" Tentative and "Q" Qualified classifications applicable to property within the Specific Plan Area prior to the adoption date of this Specific Plan, including those contained in Ordinance No. 159,526. The substance of the conditions in Ordinance No. 159,526 is incorporated in this ordinance as Appendix A and relate to property generally known as LAX Northside.

D. Site Plan Review and "Major" Development Projects Ordinances. Notwithstanding LAMC Sections 16.05 and 12.24 U 14, Site Plan Review and "Major" Development Projects approvals shall not be required within this Specific Plan Area.

E. Specific Plan Procedures. Notwithstanding LAMC Sections 11.5.7 B, 11.5.7 C, 11.5.7 D, 11.5.7 E, 11.5.7 H, and 11.5.7 J, Project Permit Compliance approvals, including modifications, adjustments and interpretations, shall not be required within the Airport Airside and Airport Landside Sub-Areas of this Specific Plan Area.

F. Mini-Shopping Centers and Commercial Corner Development Ordinance. Notwithstanding LAMC Sections 12.22 A 23 and 12.24 W 27, Mini-Shopping Center and Commercial Corner Development approvals shall not be required within this Specific Plan Area.

G. Landscape Ordinance. The provisions of LAMC Sections 12.21 A 6, 12.40, 12.41, 12.42, and 12.43 shall not apply within the Specific Plan Area.

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H. Hotels When Located Within 500 Feet of an A or R Zone. Notwithstanding LAMC Section 12.24 W 24, approvals for hotels located within 500 Feet of an A or R Zone shall not be required within this Specific Plan Area.

I. Parking. Where this Specific Plan contains language or standards that require more parking or permit less parking than LAMC Section 12.21 A 4, this Specific Plan shall supersede the LAMC. In addition, the requirements of Los Angeles Ordinance No. 182,386 shall not be required within this Specific Plan Area.

J. Telecommunications. Notwithstanding LAMC Section 12.24 W 49, approvals for Telecommunications Facilities shall not be required within this Specific Plan Area.

K. Kennels When Located Within 500 Feet of a Residential Zone. Notwithstanding LAMC Section 12.24 W 25, approvals for kennels or facilities for the boarding of dogs when located within 500 feet of any residential zone shall not be required within this Specific Plan Area.

L. Citywide Design Guidelines. Any ordinance amending LAMC Section 11.5.4 to require projects to comply with the Citywide Design Guidelines shall not apply within this Specific Plan Area.

Sec. 4. APPLICATION OF SPECIFIC PLAN TO DEVELOPMENT IN SPECIFIC PLAN AREA.

A. Except for the provisions of Section 7, the regulations of this Specific Plan apply to all development located in the Specific Plan Area which requires a grading, building, mechanical, electrical, plumbing and/or sign permit. The provisions of Section 7 apply only to Projects as defined in this Specific Plan.

B. No grading permit, building permit, or use of land permit shall be issued, and no construction shall occur, for any development within the Specific Plan Area unless the Executive Director has approved the proposed development.

Sec. 5. DEFINITIONS. Whenever the following terms are used in this Specific Plan, with the first letter or letters capitalized, they shall be construed as defined in this section. Words and phrases not defined in this section shall be construed as defined in LAMC Section 12.03.

Air Cargo Facility. Buildings, including any associated equipment and vehicles, used for the storage and transport of cargo to and from commercial aircraft.

Airport. An area of land that is used or intended to be used for the landing and taking off of aircraft, and includes its buildings, facilities and ancillary uses, if any.

Airport Airside Sub-Area. That area as shown on Map 2.

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Airport Landside Sub-Area. That area as shown on Map 2.

Applicant. Any entity, LAWA or any person, as defined in LAMC Section 11.01, submitting a request for LAX Plan Compliance Review.

Automated People Mover System (APM). A rail or fixed guideway based transportation system or systems that moves passengers to and from the Central Terminal Area to the landside access facilities (CONRAC and ITF) and other mass transportation facilities in an above-grade configuration, and to and from the Central Terminal Area to the Tom Bradley International Terminal and the Midfield Satellite Concourse in a below-grade configuration.

BOAC. The Board of Airport Commissioners of Los Angeles World Airports.

Central Terminal Area (CTA). The primary passenger check-in and processing center and the transition to and from landside facilities (ITF and CONRAC).

CEQA. California Environmental Quality Act.

City Engineer. The City Engineer of the Department of Public Works, Bureau of Engineering, or his or her designee.

Commercial Passenger Vehicle Staging and Holding Area. An area for taxis, rental car company, hotel/motel, door-to-door, and scheduled buses and vans, chartered buses and vans, etc., to wait before picking up passengers.

Consolidated Rental Car Facility (CONRAC). A consolidated facility to accommodate rental car operators at LAX. This facility may include a customer service facility, ready/return garage, rental car storage, and maintenance support.

Executive Director. The Executive Director of Los Angeles World Airports, or his or her designee.

Federal Aviation Administration (FAA). A federal agency charged with regulating air commerce to promote its safety and development, encouraging and developing civil aviation, air traffic control and air navigation, and promoting the development of a national system of airports.

Fixed-Base Operators (FBO). A person, firm or corporation authorized by issuance of a commercial operator's permit to provide aeronautical activities, services or products at the airport for compensation or hire.

Fuel Farm. Facility used for the storage of aircraft jet fuel prior to distribution to the aircraft via hydrant system or fueling trucks.

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Intermodal Transportation Facility (ITF). A facility providing remote passenger pick up and drop off areas, public parking, and connections to public transit and other commercial vehicles (i.e. door-to-door shuttles and scheduled buses).

LADOT. The City of Los Angeles Department of Transportation.

LADOT General Manager. The General Manager of the City of Los Angeles Department of Transportation, or his or her designee.

LAMC. Los Angeles Municipal Code.

LAWA. Los Angeles World Airports.

LAX. Los Angeles International Airport.

LAX Master Plan Stakeholder Liaison. A person appointed by BOAC to assist the board and other decision-makers in communicating with the stakeholders regarding LAX Master Plan decisions.

LAX Northside. The development project that is to be built out within the LAX Northside Sub-Area, previously the subject of Ordinance No. 159,526 and a Final Environmental Impact Report.

LAX Northside Sub-Area. That area as shown on Map 2.

LAX Plan. The area plan adopted by City Council as the land use element of the City's General Plan for the airport and LAX Northside.

LAX Plan Compliance Review. A determination issued pursuant to Section 7 of this Specific Plan.

Midfield Satellite Concourse. A component of the terminal facilities located west of the existing Central Terminal Area accessed via the Automated People Mover System. This component includes uses such as passenger waiting areas, aircraft loading and unloading, retail, and airline operations areas.

Mitigation Monitoring and Reporting Program (MMRP). The program adopted by BOAC and City Council for applying, monitoring and reporting with respect to the LAX Plan's master plan commitments and mitigation measures as future site specific improvements and uses contemplated by the LAX Plan are developed. The Board of Airport Commissioners may modify the program in accordance with CEQA.

Navigational Aid (Nav Aid). Any facility used by an aircraft or its pilot for guiding or controlling flight in the air or the landing or takeoff of an aircraft.

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Project. The construction, erection, addition to, or structural alteration of any building or structure, or use of building or land, or change of use of building or land located in whole or in part within the Airport Airside or Airport Landside Sub-Areas of the Specific Plan Area.

A Project shall not include the following:

1. Interior or exterior remodeling of a building;

2. The change of use of a building or land, or the relocation of existing uses, if the change of use or relocation: (a) changes the footprint of a building or structure by 10% or less in square feet; or (b) increases the usable floor area by 10% or less;

3. Activity requiring building permits for the alteration of structures solely relating to mechanical, electrical, or plumbing work internal to the structure, fascia, or any combination of these;

4. Signs;

5. Fences/walls, retaining walls, or support structures;

6. The placement of Navigational Aids and any other equipment mandated by the FAA, TSA, or any other governmental agency;

7. Improvements mandated by the FAA, TSA, or any other governmental agency;

8. Airline operation activities;

9. Non-Master Plan Project infrastructure upgrades, airport maintenance activities, and repair of existing facilities approved by BOAC;

10. Temporary uses, for a period not to exceed 120 days;

11. Emergency uses and/or activities in response to safety and security issues (i.e., activities required by heightened security levels or unsafe operating conditions);

12. Special events, as authorized by the Executive Director or BOAC;

13. Notwithstanding LAMC Section 12.23 A 4, the rehabilitation or reconstruction of a conforming or nonconforming building or structure that was damaged or destroyed by fire, flood, wind, earthquake, or other natural or man-made disaster;

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14. Any construction required in order to comply with an order issued by the U.S. Department of Transportation, the FAA or the Department of Building and Safety to repair or replace an unsafe or substandard condition;

15. Construction, the value of which is within the jurisdiction of the Executive Director to approve and does not need to be approved by BOAC under Los Angeles Administrative Code Section 10.1.1 and BOAC Resolution No. 19593 or any subsequent amendment; or

16. Security improvements to existing facilities.

Run-up Enclosure. Specialty facility used to test aircraft engines and disperse sound to reduce noise impacts on surrounding areas.

Runway. A defined rectangular area on the airport used to prepare for the takeoff or landing of aircraft along its length.

Specific Plan Area. That area within the heavy dashed lines on Map 1 in this Specific Plan.

Taxiway. A specially designated and prepared surface on an airport, including a taxilane, for aircraft to taxi to and from Runways, hangers, and aircraft parking positions.

Trip. A vehicle trip will be administratively defined by agreement between the General Manager of LADOT and LAWA to include the entrance or exit of a vehicle from airport or airport-related property.

Sec. 6. SAFETY OF AIRPORT OPERATIONS. Notwithstanding any other provision of this Specific Plan, no use, development or activity within the Specific Plan Area may compromise the safety of airport flight operations in any way. Final authority for determining whether airport flight operation safety is compromised rests solely with the U. S. Department of Transportation and the FAA.

Sec. 7. LAX PLAN COMPLIANCE REVIEW.

A. General. The provisions of Subsections B, C, D, E and H of LAMC Section 11.5.7 do not apply to any Projects proposed for construction within the Airport Airside and Airport Landside Sub-Areas of the Specific Plan Area.

B. Prohibition. No grading permit, building permit, or use of land permit shall be issued, and no construction shall occur, on any Project within the Airport Airside and Airport Landside Sub-Areas unless the City Council grants an LAX Plan Compliance approval pursuant to the procedures set forth in this section.

C. Recommendation by Executive Director. The Executive Director shall have the authority to recommend approval, approval with conditions, modification or denial of a

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request for an LAX Plan Compliance determination. This recommendation shall be made to BOAC and the City Council pursuant to the procedures set forth in this section after consideration of the traffic generation report and aviation activity analysis required in Subsection G 1 below and following consultation with the LAX Master Plan Stakeholder Liaison.

D. Findings. The Executive Director shall recommend to BOAC that the proposed Project be granted an LAX Plan Compliance approval upon written findings that the Project satisfies each of the following requirements:

1. LAX Plan Consistency. That the Project complies with the LAX Plan, any design guidelines required by the LAX Plan, and all applicable provisions of this Specific Plan; and

2. Environmental Compliance. That the Project has been adequately analyzed in compliance with CEQA, and the applicable master plan commitments and mitigation measures contained in the MMRP (as may be modified by BOAC in accordance with CEQA) or identified in any subsequent environmental review have been incorporated into the Project to the extent feasible.

E. Rights Granted Under LAX Plan Compliance. The issuance of an LAX Plan Compliance approval indicates compliance with the LAX Plan and this Specific Plan, but does not in any way indicate compliance with other applicable provisions of LAMC Chapter I (Planning and Zoning Code), nor with Chapter IX (Building Code).

F. Procedures.

1. The Executive Director shall review a Project for LAX Plan Compliance based upon the following information:

(a) A written description of the Project including location, size, proposed use, and any other pertinent information;

(b) A completed initial environmental study, including a traffic study, where appropriate, or other analysis;

(c) The most recent annual traffic generation report as required in Subsection G 1 below; and

(d) The most recent annual aviation activity analysis as required in Subsection G 1 below.

2. Executive Director's Review.

(a) Upon receipt of a request for review, the Executive Director shall transmit a copy of the written description of the Project and appropriate

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documents to the LADOT General Manager, the City Engineer, the Councilmember of the district in which the Specific Plan Area is located and the LAX Master Plan Stakeholder Liaison, and post notice of the application on the LAWA website. The LADOT General Manager and the City Engineer shall submit any written comments concerning parking, driveways, access, circulation, and infrastructure improvements to the Executive Director within 15 working days from the date the documents were received, unless the LADOT General Manager and the Executive Director agree more time is necessary. The Executive Director shall ensure that LAWA communicates with the LAX Master Plan Stakeholder Liaison. The Executive Director shall consider the comments and concerns of the stakeholders as early in the process as reasonable.

(b) The Executive Director shall determine whether the Project complies with the LAX Plan and all applicable provisions of this Specific Plan.

(c) The Executive Director shall determine whether the environmental clearance for the Project complies with CEQA.

(d) If the Executive Director determines that the Project is consistent with the LAX Plan, all applicable provisions of this Specific Plan and with the requirements of CEQA, the Executive Director shall prepare a written report and transmit this report to BOAC for its action on the LAX Plan Compliance request. This written report shall include findings to support the Executive Director's recommendation, the applicable master plan commitments and mitigation measures, the applicable mitigation measures identified in any subsequent environmental review, the applicable traffic improvements and right-of-way dedications, and any conditions of approval that shall be imposed on the Project. As a part of this written report, the Executive Director shall summarize the traffic generation report and aviation activity analysis required in Subsection G 1 below, and the results of the consultation with the LAX Master Plan Stakeholder Liaison. The Executive Director shall also attach the reports submitted by the LADOT General Manager and the City Engineer.

(e) If the Executive Director determines that the Project is not consistent with the LAX Plan and all applicable provisions of this Specific Plan, the Executive Director may direct staff to reconsider the Project, analyze or redesign the Project, or recommend that BOAC seek an amendment to the LAX Plan and/or an amendment or exception to the Specific Plan pursuant to LAMC Sections 11.5.6 and/or 11.5.7 F and G, as appropriate.

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3. Notice Requirements for BOAC Hearing. After receipt of the Executive Director's report and recommendation, BOAC shall set the matter for hearing. Notice of the time, place, and purpose of the hearing shall be given in the following manner:

(a) By posting the BOAC meeting agenda in the LAWA offices, on the LAWA website, and on the City of Los Angeles website at least 72 hours prior to the meeting.

(b) For the CTA, ITF, CONRAC, Midfield Satellite Concourse, and APM (except that portion that connects the CTA with Tom Bradley International Terminal and the Midfield Satellite Concourse) Projects, notice shall also be given by sending written notice by First Class Mail at least 15 days prior to the meeting date to: the Department of City Planning; the Department of Building and Safety; the Councilmember(s) of the district in which the Specific Plan Area is located; LADOT; the Bureau of Engineering; the LAX Master Plan Stakeholder Liaison; the Department of Neighborhood Empowerment; the West Los Angeles Area Planning Commission; the president(s) of local neighborhood councils; the Airlines for America trade association, Airlines Airport Affairs Committee, and any other airline industry trade groups identified by the LAX Master Plan Stakeholder Liaison as stakeholders; the LAX Coastal Chamber of Commerce; and local homeowners groups and interested parties who have filed a written request with LAWA.

4. Recommendation by BOAC. BOAC shall recommend to City Council that it approve, approve with conditions, modify or deny a request for LAX Plan Compliance. BOAC shall make the same findings required to be made by the Executive Director, supported by facts in the record. BOAC shall recommend that all appropriate master plan commitments and mitigation measures, the applicable mitigation measures identified in any subsequent environmental review, and any other requirements are included as a condition of the approval.

5. City Council Determination. City Council shall approve, approve with conditions, modify or deny a request for LAX Plan Compliance. The City Council shall make the same findings required to be made by the Executive Director, supported by facts in the record. The City Council shall ensure that all appropriate master plan commitments and mitigation measures, the applicable mitigation measures identified in any subsequent environmental review, and any other requirements are included as a condition of the approval. Except for the Projects referred to as the Intermodal Transportation Facility, Automated People Mover System, and North Runway configuration, if the City Council does not take final action on the application for an LAX Plan Compliance determination within 45 days of receipt from the recommendation from BOAC, the recommendation from BOAC shall become the final decision on the application.

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G. Monitoring and Reporting.

1. LAWA shall prepare and submit annual reports to BOAC, the Department of City Planning, LADOT and City Council for the following:

(a) Traffic Generation Report. A traffic report, based on the information required by Section 12 C 1, that identifies the current number of Trips being generated by LAX (inclusive of all three Sub-Areas), the number of Trips anticipated to be generated at the completion of any Master Plan Project(s) in development at the time of the report, the Trips proposed to be generated following the full implementation of the Master Plan as informed by current and Project-based Trip counts, and the number of Trips anticipated to be generated by on-going Master Plan construction activities.

(b) Aviation Activity Analysis. An aviation activity analysis that identifies the current number of passengers, volume of air cargo and aircraft operations served at LAX, and the volume of aviation activity anticipated to be served by on-going Master Plan construction activities. In order to monitor that regional aviation system improvements are taking place in a timely manner, LAWA will also compile aviation activity statistics for other airports in the Los Angeles region for monitoring and reporting purposes. Passengers, volume of air cargo and aircraft operations activity at all airports with scheduled passenger or cargo activity in Los Angeles, Orange, Riverside, San Bernardino and Ventura counties will be compiled in coordination with the Southern California Association of Governments (SCAG). The analysis shall also include the proportion of aviation activity served at each airport in the region.

(c) Mitigation Monitoring and Reporting Program. A status report on compliance with Master Plan commitments and mitigation measures contained in the Mitigation Monitoring and Reporting Program.

2. The first of each annual report required in Subdivision 1 shall be submitted one year following the City Council's approval of the LAX Plan and MMRP, and the last report shall be submitted at the end of the year following completion of any pending Master Plan Project.

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H. Additional Study Requirements.

1. Specific Plan Amendment Study. LAWA shall initiate a Specific Plan Amendment Study with corresponding environmental analysis in compliance with CEQA, in the following two circumstances:

(a) If the annual traffic generation report required in Subsection G 1 above, and/or the annual traffic generation report considered together with any Project-specific traffic study, shows that any Master Plan Projects will be generating net new airport peak hour Trips in excess of 8,236 (unless the total Trips for that year are related to construction or phasing impacts).

(b) If the annual aviation activity analysis required in Subsection G 1 above forecasts that the annual passengers for that year are anticipated to exceed 78.9 million.

2. LAX Domestic Passenger and Airline Market Survey/Study. LAWA shall initiate an LAX Domestic Passenger Survey/Study and corresponding Airline Survey/Study, if the annual aviation activity analysis required in Section G 1 above forecasts that the annual passengers for that year are anticipated to exceed 75 million.

(a) LAX Domestic Passenger Survey and Study. LAWA shall conduct a survey and study of LAX domestic passengers (those passengers not flying internationally or connecting to international flights) designed to identify, at a minimum: (i) those LAX domestic passengers with origination or destination locations closer to other commercial airports in the region; (ii) why those domestic passengers chose to fly out of, or into, LAX rather than another commercial airport closer to their location of origin or destination; and (iii) what actions, consistent with federal, state and local laws, LAWA could take to encourage those domestic passengers to use an airport closer to their location of origin or destination for domestic flights.

(b) Airline Survey and Study. Upon completion of the LAX Domestic Passenger Survey and Study described in 2(a) above, LAWA shall conduct a survey and study of airlines then serving the Southern California commercial air travel market designed to identity what action(s), consistent with federal, state and local laws, LAWA could take to encourage those airlines to provide increased domestic service at other airports in the region, particularly those owned or operated by LAWA.

I. LAX Master Plan Stakeholder Liaison. The LAX Master Plan Stakeholder Liaison shall communicate with the stakeholders on Master Plan issues. The LAX Master Plan Stakeholder Liaison shall ensure that notice is provided to the stakeholders at the

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earliest reasonable time of initiation of Projects and any Specific Plan Amendment Study.

Sec. 8. LAND USE.

A. Designation of Sub-Areas. The Specific Plan is divided into three Sub-Areas, as shown on Map 2. The Sub-Areas are designated as: Airport Airside, Airport Landside, and LAX Northside.

B. Unified Development. For purposes of applying building ordinances and regulations, as well as the regulations of this Specific Plan, to the Airport Airside and Airport Landside Sub-Areas, these areas may be treated as a unified development (or unified developments).

1. A unified development shall mean an area or development that:

(a) has a combination of functional linkages, such as pedestrian or vehicular connections; and

(b) is composed of two or more contiguous parcels or lots of record, except where divided by a public street (or streets).

2. Before applying building ordinances and regulations to any area or development within the Airport Airside and Airport Landside Sub-Areas, the Department of Building and Safety shall determine whether or not the area or development is a unified development, or part of a unified development, as defined in this subsection. The following provisions may be applied to any area or development determined to be a unified development:

(a) Location of Parking Area. Notwithstanding LAMC Section 12.21 A 4(g), parking to serve the area or development may be located at any location within the Airport Airside and Airport Landside Sub-areas. Further, the provisions of LAMC Section 12.26 E 5 shall not apply;

(b) Floor Area Ratio (FAR). The total buildable area of all parcels may be used to determine FAR;

(c) Building Site. Construction of a building and/or structure may be across common interior property lines;

(d) Driveways, Entry/Exiting, and Drainage. Driveway access, building entry and exiting, and drainage may be across common interior property lines;

(e) Fire Resistance and Opening Protection of Exterior Walls. The requirements for fire resistance and opening protection of exterior walls

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are not applicable to the common interior property lines. The property line abutting public roadways or adjacent to properties outside of the boundaries of the unified development is not a common interior property line;

(f) Construction and Maintenance. The construction and maintenance of all buildings, structures, and site improvements within each unified development shall be in accordance with all building ordinances and regulations that would otherwise be applicable if the buildings, structures, and improvements were located on or within a single lot.

C. Yard and Setback Regulations. Notwithstanding the provisions set forth in the LAMC, no front, side, or rear yards or building setbacks are required in the Airport Airside or Airport Landside Sub-Areas. Landscape buffers shall be consistent with any street frontage and landscape guidelines as may be required by the LAX Plan and adopted by BOAC. These landscape buffers shall not be measured from lot lines, but rather from perimeter roadways or as specified otherwise in any adopted street frontage and landscape guidelines. Development in the LAX Northside Sub-Area shall provide setbacks and landscape buffers as specified in Appendix A.

Sec. 9. AIRPORT AIRSIDE SUB-AREA.

A. Purpose. To allow for the safe and efficient operation of airport airfield activities. Aircraft are permitted to operate under power in this Sub-Area, except as prohibited in Subsection D below.

B. Permitted Uses. The following uses shall be permitted in the Airport Airside Sub-Area, also designated as the LAX-A Zone, within the Specific Plan Area, subject to approval by the Executive Director:

1. All of the uses permitted in the C2 Zone, as specified in LAMC Section 12.14, including, but not limited to:

(a) Airline clubs, retail uses, and restaurants;
(b) Aviation school;
(c) Establishments for the sale and service of alcoholic beverages for on-site and off-site consumption shall be allowed as permitted by and pursuant to any applicable procedures set forth in the LAMC;
(d) Incidental retail uses – permanent or temporary retail uses, which may include kiosks and carts; and
(e) Surface and structured parking lots (including those at-grade, above-grade, and subterranean).

2. All of the uses permitted in the M2 Zone, as specified in LAMC Section 12.19, including, but not limited to:

(a) Aircraft under power;
(b) Airline catering and food preparation;
(c) Airline maintenance and support, including but not limited to storage, aircraft engine or airframe repair and testing, and aircraft maintenance shops;
(d) Air Cargo Facilities;
(e) Commercial Passenger Vehicle Staging and Holding Area;
(f) Fixed-Base Operators;
(g) Helicopter operations, including but not limited to helicopter landings and take-offs, helipads, heliports, and helistops;
(h) Navigational Aids and any other equipment mandated by the FAA, TSA, or any other governmental agency;
(i) Run-up Enclosures;
(j) Runways, Taxiways, aircraft parking aprons, and service roads; and
(k) Passenger handling facilities, including but not limited to baggage handling and processing, passenger holdrooms, boarding gates, ticketing, and passenger check-in functions.

3. In addition, the following uses shall be permitted:

(a) Aggregate/asphalt grinding and recycling facility;
(b) Airport police fire arms training facility;
(c) Aircraft rescue, fire fighting and training facilities;
(d) Automated People Mover System, its stations and related facilities;
(e) Compressed Natural Gas/Liquified Natural Gas ("CNG/LNG") stations, central utility plant, and other fueling and energy sources;
(f) Fuel Farm;
(g) Hazardous waste storage;
(h) Hydrogen cell;
(i) Oil drilling for remediation purposes only;
(j) Security-related equipment and facilities;
(k) Surface water runoff treatment plant;
(l) Uses customarily incident to any of the above uses, and accessory buildings or uses;
(m) Uses and operations determined to be of a similar nature, or deemed necessary for the safe and efficient operation of the airport, by the Executive Director; and
(n) All uses requiring a Conditional Use Permit pursuant to LAMC Section 12.24.

C. Prohibited Uses.

The following uses shall be prohibited within the LAX-A Zone:

Any building containing dwelling units.

D. Imperial Terminal Area. The Imperial Terminal Area is the approximately 42.5-acre area north of Imperial Highway between Main Street and California Street, as shown on Map 2. In this area, aircraft maneuvering may be conducted by tug and tow procedures. The use regulations, for both permitted and prohibited uses, specified in this section for the LAX-A Zone shall apply, except the following uses shall be prohibited:

1. Aircraft under power; and
2. Helicopter operations, including but not limited to helicopter landings and take-offs, helipads, heliports, and helistops.

Sec. 10. AIRPORT LANDSIDE SUB-AREA.

A. Purpose. To allow for the safe and efficient operation of airport facilities, the primary function of which is to provide access to the airport and process passengers. Aircraft are not permitted to operate under power in this Sub-Area.

B. Permitted Uses. The following uses shall be permitted in the Airport Landside Sub-Area, also designated as the LAX-L Zone, within the Specific Plan Area, subject to approval by the Executive Director:

1. All of the uses permitted in the C2 Zone, as specified in LAMC Section 12.14, including, but not limited to:

(a) Airline clubs, retail uses, and restaurants;
(b) Aviation school;
(c) Establishments for the sale and service of alcoholic beverages for on-site and off-site consumption shall be allowed as permitted by and pursuant to any applicable procedures set forth in the LAMC;
(d) Rental car operations, including but not limited to vehicle maintenance and car washing;
(e) Incidental retail uses – permanent or temporary retail uses, which may include kiosks and carts; and
(f) Surface and structured parking lots (including those at-grade, above-grade, and subterranean).

2. All of the uses permitted in the M2 Zone, as specified in LAMC Section 12.19, including, but not limited to:

(a) Airline catering and food preparation;
(b) Airline maintenance and support, including but not limited to storage, aircraft engine or airframe repair and testing, and aircraft maintenance shops;
(c) Air Cargo Facilities;
(d) Commercial Passenger Vehicle Staging and Holding Area;
(e) Helicopter operations, including but not limited to helicopter landings and take-offs, helipads, heliports, and helistops;
(f) Navigational Aids and any other equipment mandated by the FAA, TSA, or any other governmental agency;
(g) Passenger handling facilities, including but not limited to baggage handling and processing, passenger holdrooms, boarding gates, ticketing, and passenger check-in functions; and
(h) Service roads.

3. In addition, the following uses shall be permitted:

(a) Passenger pick up and drop off areas;
(b) Automated People Mover System, its stations and related facilities;
(c) CNG/LNG stations, central utility plant, and other fueling and energy sources;
(d) Security-related equipment and facilities;
(e) Uses customarily incident to any of the above uses, and accessory buildings and uses;
(f) Uses and operations determined to be of a similar nature, or deemed necessary for the safe and efficient operation of the airport, by the Executive Director; and
(g) All uses requiring a Conditional Use Permit pursuant to LAMC Section 12.24. Notwithstanding the foregoing, as specified above, all establishments for the sale and service of alcoholic beverages shall be allowed as permitted by and pursuant to any applicable procedures set forth in the LAMC.

C. Prohibited Uses.

The following uses shall be prohibited within the LAX-L Zone:

(a) Aircraft under power; and
(b) Any building containing dwelling units.

Sec. 11. LAX NORTHSIDE SUB-AREA.

A. Purpose. To provide for the redevelopment of land previously used for residential purposes with uses that are consistent with airport needs and neighborhood conditions. This Sub-Area serves as an airport buffer zone for the Westchester community.

B. General. The LAX Northside Sub-Area has fifteen areas – Areas 1, 2, 3, 4A, 4B, 5 through 11, 12A, 12B and 13 – as shown on Map 3.

C. Relationship to Ordinance No. 159,526. The LAX Northside Sub-Area, also designated as the LAX-N Zone, is comprised of property previously entitled under Ordinance No. 159,526. The limitations, including permitted uses, requirements and conditions of development in Ordinance No. 159,526 are incorporated into the Specific Plan as Appendix A. The requirements in Appendix A shall apply to all development in this Sub-Area.

D. Project Permit Compliance Review. The Project Permit Compliance Review procedures set forth in LAMC Section 11.5.7 C shall apply to all projects in the LAX Northside Sub-Area.

E. Design Plan and Guidelines. In addition to Appendix A, projects shall comply with the "Design Plan and Guidelines for LAX Northside" by Albert C. Martin and Associates, dated April 20, 1989, and any amendment adopted by BOAC after that date.

F. Area 13. Notwithstanding the provisions of Subsections C and E above, the requirements in Appendix A and the "Design Plan and Guidelines for LAX Northside" by Albert C. Martin and Associates, dated April 20, 1989, shall not apply to Area 13 of the LAX Northside Sub-Area. Area 13 shall be used for recreational facilities and other public benefit type uses, including child care, children's play area, picnic amenities, athletic fields, parks, libraries, and similar uses.

Sec. 12. TRANSPORTATION REGULATIONS.

A. Right-of-Way Dedications.

1. Right-of-way dedications, or any similar grant of rights to use land for public street purposes, shall be made for any public streets to the satisfaction of the LADOT General Manager and the City Engineer. All dedications shall be in conformance with City of Los Angeles standard street dimensions, unless deemed unwarranted by the LADOT General Manager and the City Engineer based on any environmental review and/or traffic analyses. The LADOT General Manager and the City Engineer may also allow variations from dedications to standard street dimensions if the variation is necessary to assure proper

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integration of a dedication into existing on-site conditions. The following public roadways within the Specific Plan Area are designated as major or secondary highways:

(a) 96th Street
(b) 111th Street
(c) Airport Boulevard
(d) Aviation Boulevard
(e) Bellanca Avenue
(f) Century Boulevard
(g) Fallmouth Avenue
(h) Imperial Highway
(i) La Cienega Boulevard
(j) La Tijera Boulevard
(k) Lincoln Boulevard
(l) Pershing Drive
(m) Sepulveda Boulevard
(n) Westchester Parkway/Arbor Vitae Street

2. The use of airspace above a public street shall be permitted so long as the surface elements of that street may be maintained for street purposes.

3. Any roadway within the Airport Airside and Airport Landside Sub-Areas, which is not already designated as a public street, may be designated as an internal airport roadway. The LADOT General Manager's authority in the design of these roadways shall be advisory only, except that the intersection of these roadways with public streets shall be to the satisfaction of the LADOT General Manager and the City Engineer. Maintenance of internal airport roadways shall be the responsibility of LAWA.

B. Required Traffic Improvements - Airport Airside and Airport Landside Sub-Areas Only. A transportation improvements phasing plan shall be prepared by LAWA and approved by the LADOT General Manager that is in conformance with the LAX Plan and the certified Master Plan Final Environmental Impact Statement/Environmental Impact Report, and includes all on-site and off-site improvements as required by the LADOT General Manager. Revisions may be made to the transportation improvements phasing plan in conformance with any subsequent environmental review, or where appropriate, as determined by the LADOT General Manager.

Transportation improvements shall be constructed or suitably guaranteed to the satisfaction of the LADOT General Manager and the City Engineer in connection with individual Projects or development sites as specified in the transportation improvements phasing plan. Prior to the issuance of any final certificate of occupancy in the final phase of the transportation improvements phasing plan, all required improvements in the entire phasing plan shall be funded, completed, or resolved to the satisfaction of the LADOT General Manager. If a proposed traffic mitigation measure does not receive the

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required approval, a substitute mitigation measure may be provided subject to approval by the LADOT General Manager, or other governing agency with jurisdiction over the mitigation location, upon demonstration that the substitute measure is equivalent or superior to the original measure in mitigating the Project's significant traffic impact.

C. Project Trip Generation.

1. In an effort to monitor traffic impacts and traffic mitigation measures, LADOT and LAWA shall jointly conduct traffic counts or otherwise determine the traffic impacts of Projects within the Master Plan. The conclusions of these counts and other determinations shall be incorporated into a traffic generation report, which shall be approved by the LADOT General Manager and annually submitted to BOAC, City Council, and the Department of City Planning.

The Master Plan FEIS/EIR forecasts the net new Trips at full build out of the Master Plan, after implementation of mitigation measures, to be no more than 8,236 at airport peak hour. If the annual traffic generation report described above, and/or the annual traffic generation report considered together with any Project-specific traffic study, shows that development of the Master Plan is likely to increase the Trips beyond 8,236, LAWA shall complete the Specific Plan Amendment Study required in Section 7 H of this Specific Plan.

No Specific Plan Amendment Study shall be required if the annual traffic generation report, and/or the annual traffic generation report considered together with any Project-specific traffic study, determines that the net new Trips are anticipated to exceed 8,236 in the airport peak hour, but this increase in Trips will only be temporary until the Project(s) and associated mitigation measures are complete and/or if this increase in Trips is consistent with the number of Trips anticipated to occur during the peak year of traffic impacts as analyzed in the Master Plan FEIS/EIR. In this case, the traffic generation report shall evaluate the effectiveness of future Projects and mitigation measures in ultimately reducing the number of net new Trips to 8,236 in the airport peak hour at build-out of the Master Plan. Any LAX Plan Compliance approval for a Project shall include any conditions necessary to ensure the ultimate reduction. If Trip reduction program measures are recommended, LAWA shall include in future annual reports an analysis of the on-going effectiveness of those measures and, if the Trip reductions are not effectuated, additional measures may be implemented and/or a Specific Plan Amendment Study may be triggered.

2. LAX Northside Sub-Area. As part of the annual traffic generation report, the number of Trips generated by each project shall be documented so that the total number of Trips generated by on-going development is monitored and reviewed by the LADOT General Manager for consistency with the maximum allowable number of a.m. and p.m. peak Trips. LADOT and LAWA shall agree on procedures for this documentation. These counts shall be taken at the expense of the Applicant.

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A reduction in the total number of Trips permitted to be generated by development in the LAX Northside Sub-Area, from that which was approved for this area under previous entitlements, is required as a result of the LAX Plan and shall be imposed by way of this Specific Plan.

All projects within the LAX Northside Sub-Area together shall not generate more than 3,922 project-related Trips in the a.m. peak hour (part of the total 6,496 net new a.m. peak hour Trips for the LAX Master Plan) and 4,421 project-related Trips in the p.m. peak hour (part of the total 6,914 net new p.m. peak hour Trips for the LAX Master Plan). The number of Trips generated by a project shall be based on the trip generation rates used in Ordinance No. 168,999 (Coastal Transportation Corridor Specific Plan (CTCSP)) and/or determined appropriate by the LADOT General Manager and on square footages of the proposed project. In conjunction with each application for Project Permit Compliance Review for a project within the LAX Northside Sub-Area, the Applicant shall estimate the number of Trips generated by each project and submit the estimate to the LADOT General Manager for review and approval. This subsection shall not apply to development within Area 13 as shown on Map 3.

D. Automated People Mover System. APM(s) shall be optimally designed and constructed to minimize disruption and vehicle delay on the public roadway and transit system, and shall be elevated above street level wherever possible to minimize at-grade crossing points with public roadways. LAWA shall consult with the LADOT General Manager and the City Engineer early in the design process of the APM.

Any rules and regulations of the Public Utilities Commission of the State of California governing the APM, including but not limited to its design, operation, and maintenance, shall supersede any other provision of this Specific Plan and any building or zoning ordinances to the contrary.

Sec. 13. PARKING REGULATIONS.

A. Requirements – Airport Airside and Airport Landside Sub-Areas Only.

1. It is anticipated that approximately 32,155 off-street parking spaces may be provided at build-out of the LAX Master Plan; however, notwithstanding LAMC Section 12.21 A 4, no more than 35,712 off-street parking spaces shall be provided at build-out of the LAX Master Plan for passengers, visitors, and airport and airline employees. Parking shall be comprised of short-term, long-term, and employee parking spaces.

2. Notwithstanding LAMC Section 12.21 A 4 (g), parking may be located at any location within the Airport Airside and Airport Landside Sub-Areas.
3. Subsections 1 and 2 above shall not apply to off-street parking for visitors and employees of cargo-only facilities and commercial/industrial buildings located within the area bounded by Century Boulevard, Aviation Boulevard, Imperial

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Highway and Sepulveda Boulevard, and the area west of Sepulveda Boulevard and north of Imperial Highway. Off-street parking for these cargo-only facilities and commercial/industrial buildings shall be provided in compliance with the provisions of LAMC Section 12.21 A 4 (c). The Executive Director may also permit two or more of these uses to share off-street parking spaces, if the Executive Director determines that a lower total number of parking spaces than would otherwise be required will provide adequate parking for these uses.

B. Requirements – LAX Northside Sub-Area Only. All projects within the LAX Northside Sub-Area shall provide off-street parking as specified in Appendix A and the "Design Plan and Guidelines for LAX Northside" by Albert C. Martin and Associates, dated April 20, 1989, and any amendment adopted by BOAC after that date.

Sec. 14. SIGN REGULATIONS.

A. General Requirements. The Department of Building and Safety shall issue sign permits for any signs otherwise requiring a permit pursuant to Article 6, Chapter IX of the LAMC that are regulated by this Specific Plan. All signs and sign support structures that are erected and maintained on property owned or controlled, in whole or in part, by LAWA shall be reviewed by the Department of Building and Safety pursuant to LAMC Sections 14.4.1, 14.4.2, 14.4.3, 14.4.4 A – 14.4.4 I, 14.4.11 C – 14.4.11 E, 14.4.12 F, 14.4.15, 14.4.16 A, 14.4.16 C, 14.4.16 E, 14.4.18 H, 14.4.18 I, 14.4.19, 91.6201.2.1, 91.6201.3, 91.6202, 91.6204, 91.6205, 91.6205.18, 91.6207, 91.6209, 91.6210, 91.6211, 91.6212, 91.6213, and 91.6216. The Executive Director shall review signs for conformance with all other sign provisions of Article 4.4, Chapter 1 and Article 1, Division 62 of Chapter IX of the LAMC and provide a written approval to the Department of Building and Safety prior to issuance of any sign permit. Types of signs identified in this Specific Plan are defined in LAMC Section 14.4.2. Where materials for signs are not specified in the LAMC, materials shall be approved by the Departments of Building and Safety and Fire. Except for Subsections D and E, the provisions of this Section shall apply only to signs within the Airport Airside and Airport Landside Sub-Areas.

B. Area, Location, Spacing and Height and Review Procedure. Signs shall not be subject to the LAX Plan Compliance Review procedure, but shall be reviewed and approved by the Executive Director prior to issuance of any permit for, or installation of, a sign or sign support structure.

Prior to approving any sign, the Executive Director shall determine if the proposed sign is in conformance with the sign guidelines adopted by BOAC. If the adopted guidelines address area, spacing, location, and height of signs, the Executive Director may only approve a sign if it is consistent with those guidelines. If the guidelines do not address area, spacing, location, and height of signs, then the Executive Director may only approve signs that are consistent with the appropriate area, spacing, location, and height regulations in Article 4.4, Chapter I of the LAMC.

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Prior to approving any sign, the Executive Director, after consultation with LADOT, shall also determine that the sign is not a hazard to traffic nor will it result in unsafe freeway exposure.

C. Off-Site, Supergraphic, and Mural Signs. Alteration, redesign or replacement of existing off-site signs, or erection, construction or installation of new off-site signs, supergraphic signs, and mural signs shall be permitted pursuant to the establishment of a sign district as set forth in LAMC Section 13.11.

D. Requirements - LAX Northside Sub-Area Only. Signs within the LAX Northside Sub-Area shall be in compliance with the requirements set forth in Appendix A and the "Design Plan and Guidelines for LAX Northside" by Albert C. Martin and Associates, dated April 20, 1989, and any amendment adopted by BOAC after that date.

E. State and Federally Required Signage. Any signs or sign restrictions mandated by the FAA, TSA, or any other State or Federal regulatory agency shall supersede any other provision of this Specific Plan to the contrary.

Sec. 15. SEVERABILITY. If any provision of this Specific Plan or its application to any person or circumstance is held to be unconstitutional or otherwise invalid by any court of competent jurisdiction, the invalidity shall not affect other Specific Plan provisions, clauses or applications, which can be implemented without the invalid provision, clause or application, and to this end the provisions and clauses of this Specific Plan are declared to be severable.

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Sec. 16. The City Clerk shall certify to the passage of this ordinance and have it published in accordance with Council policy, either in a daily newspaper circulated in the City of Los Angeles or by posting for ten days in three public places in the City of Los Angeles: one copy on the bulletin board located in the Main Street lobby to the City Hall; one copy on the bulletin board located at the ground level at the Los Angeles Street entrance to the Los Angeles Police Department; and one copy on the bulletin board located at the Temple Street entrance to the Los Angeles County Hall of Records.

I hereby certify that the foregoing ordinance was introduced at the meeting of the Council of the City of Los Angeles MAY 14 2013, and was passed at its meeting of MAY 21 2013.

JUNE LAGMAY, City Clerk

By _____ Deputy

Approved MAY 24 2013

_____ Mayor

Approved as to Form and Legality

CARMEN A. TRUTANICH, City Attorney

By _____ KENNETH T. FONG Deputy City Attorney

Date May 14, 2013

Pursuant to Charter Section 559, I approve this ordinance on behalf of the City Planning Commission and recommend it be adopted . . . .

May 14, 2013

See attached report.

_____ Michael LoGrande Director of Planning

File No(s). CF No. 13-0285; CPC File No. 2012-3357-GPA-SP

M:\Real Prop_Env_Land Use\Land Use\Kenneth Fong\LAX Specific Plan\City Attorney LAX Specific Plan.7.docx

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DECLARATION OF POSTING ORDINANCE

I, MARIA VIZCARRA, state as follows: I am, and was at all times hereinafter mentioned, a resident of the State of California, over the age of eighteen years, and a Deputy City Clerk of the City of Los Angeles, California.

Ordinance No. 182542 – Establishing a Specific Plan, known as the LAX Specific Plan within the LAX Plan area - a copy of which is hereto attached, was finally adopted by the Los Angeles City Council on **May 21, 2013**, and under the direction of said City Council and the City Clerk, pursuant to Section 251 of the Charter of the City of Los Angeles and Ordinance No. 172959, on **May 24, 2013** I posted a true copy of said ordinance at each of the three public places located in the City of Los Angeles, California, as follows: 1) one copy on the bulletin board located at the Main Street entrance to the Los Angeles City Hall; 2) one copy on the bulletin board located at the Main Street entrance to the Los Angeles City Hall East; 3) one copy on the bulletin board located at the Temple Street entrance to the Los Angeles County Hall of Records.

Copies of said ordinance were posted conspicuously beginning on **May 24, 2013** and will be continuously posted for ten or more days.

I declare under penalty of perjury that the foregoing is true and correct.

Signed this **24th** day of **May, 2013** at Los Angeles, California.

_____ Maria Vizcarra, Deputy City Clerk

Ordinance Effective Date: July 3, 2013 **Council File No.** 13-0285

Rev. (2/21/06)

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APPENDIX A

Requirements for Development within the LAX Northside Sub-Area

1. The subject property shall be used for those principal and accessory uses in development areas as indicated on Map 3, as follows:

   a. Area East of Lincoln Boulevard
   Area 8 – Commercial uses, including office and restaurant uses; and automobile service station.
   Area 9 – Commercial uses, including office and restaurant uses; automobile service station in the western portion only; public automobile parking in the eastern portion only; and an airport view site.
   Area 10 – Public automobile parking.
   Area 11 – Commercial uses, including hotel, office, restaurant, service and retail uses and a movie theater complex.
   Area 12A – Commercial uses, including offices, hotel, restaurant, service and retail uses.
   Area 12B – A commercial golf course, including golf driving tees and ranges and similar commercial golf uses.

   b. Area Between Lincoln Boulevard and Falmouth Avenue (Extended)
   Area 2 – Offices, business park and research and development center.
   Area 3 – Commercial uses, including hotel, offices, restaurant, service and retail uses.
   Area 4B – Light industrial uses, airline and airport support services, including flight kitchens, caterers, ticket reservation centers, custom house brokers, warehouse, airport maintenance and ground services (excluding engine shops), freight forwarders, package delivery services, security services, import/export services and other similar accessory or support services; business park and research and development center; and offices within 400 feet west of the prolongation of Loyola Boulevard on the south side of Westchester Parkway.
   Areas 5, 6 and 7 – Offices, business park and research and development center; airport view site; airline and airport support and accessory uses.

   c. Area West of Falmouth Avenue (Extended)
   Area 1 – Offices, business park and research and development center.
   Area 4A – Light industrial uses, airline and airport support services, including flight kitchens, caterers, ticket reservation centers, custom house brokers, warehouse, airport maintenance and ground services (excluding engine shops), freight forwarders, package delivery services, security services, import/export services and other similar accessory or support services; business park and research and development center; and offices within 400 feet east of Pershing Drive on the south side of Westchester Parkway.

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2. No aircraft or engine run-ups shall be permitted within the project boundaries.

3. The height of structures shall be controlled as follows:

   a. Area 2 – No structure located within 100 feet of the north airport property line between Loyola Boulevard and Hastings Avenue shall exceed three stories (including parking levels) or 45 feet in height measured from the finished grade of the lot. All accessory facilities on the roofs of such buildings, such as air conditioning units and other equipment, shall not be visible from nearby residential properties to the north and are exempted from the height restriction.

   b. Areas 1 and 4A – No structures located within 200 feet of the north airport property line between Falmouth Avenue and Pershing Drive shall exceed three stories (including parking levels) or 45 feet in height measured from the finished grade of the lot. No structure located within Areas 1 or 4A south thereof, shall exceed four stories (including parking levels) or 55 feet in height measured from the finished grade of the lot. All accessory facilities on the roofs of buildings within Area 1, such as air conditioning units and other equipment, shall not be visible from nearby residential properties to the north and are exempted from the height restriction.

4. Structures shall observe minimum setbacks, as follows:

   a. Area 2 – All structures shall observe a minimum setback of 50 feet from the north airport property line between Loyola Boulevard and Hastings Avenue. Open parking areas are permitted within the required building setback area, except as may be modified by required landscape buffer setbacks.

   b. Area 1 – All structures shall observe a minimum setback of 100 feet from the north airport property line between Falmouth Avenue and Pershing Drive. Open parking areas are permitted within the required building setback area, but not within the required landscape buffer setback.

5. Landscaped buffer setbacks shall be required as follows:

   a. Areas 11 and 12A – A 30-foot-wide landscaped buffer setback along 88th Street between Sepulveda Westway and Liberator Avenue shall be required and contain no buildings or structures, except for walls or fences and include trees, 15 gallons and 10 feet tall at the time of planting, planted at a maximum of 30 feet apart, of a type similar to those contained in Section 7 of the Planning Department's Technical Report on "Shrubs and Trees for Landscaping and Screening". Further, a 15-foot-wide landscaped buffer setback along Liberator Avenue and 88th Place

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(adjacent to the Emerson Manor School site) shall be required and include a dense screen of closely planted evergreen trees.

   b. Area 2 – A 15-foot-wide landscaped buffer setback along Cum Laude Avenue and 92nd Street (adjacent to the St. Bernard High School site) shall be required and include a dense screen of closely planted evergreen trees.

   c. Area 1 – A 50-foot-wide landscaped buffer setback along the north airport property line between Falmouth Avenue and Pershing Drive shall be required and include low, minimum-view-obstructing shrubs and ground cover (no trees) which are compatible, where appropriate, with adjacent off-airport landscaping.

6. Prior to the issuance of building permits, an on-site roadway/highway construction phasing plan and individual parcel access plan shall be submitted to the Department of City Planning for approval and for coordination and review with LADOT and the Bureau of Engineering.

7. Prior to the recordation of a final tract map covering all or any portion of the subject property and prior to the approval of any variance granting use of any portion of the property before recordation of a final tract map, the Board of Airport Commissioners shall cause to be prepared and shall approve a project design plan, together with developmental guidelines for the entire project area. The primary purposes of the design plan and guidelines shall be to provide future developers with a unifying theme and design handbook and to provide the Department of Airports with a basis for reviewing and coordinating project development plans. The project design plan shall establish a unifying architectural theme, while the elements of the developmental guidelines shall include consideration of: Building design, height, bulk, locations and interrelationships; building materials, colors and textures; public and private area landscaping; public and private signage and graphics; airport view sites; street furniture; exterior lighting; internal pedestrian and vehicular circulation; parking area design; on- and off-airport interfaces; and other design considerations as may be appropriate. The project design plan and developmental guidelines shall be governed by the conditions of approval attached to this change of zone, wherever relevant.

8. The project design plan and developmental guidelines shall treat Area 11 as a single comprehensive planned unit, providing a compatible interface with the existing and potential future uses on the privately owned property adjoining the east side of Sepulveda Westway between La Tijera Boulevard and Will Rogers Street. Convenient pedestrian access to Area 11 shall be provided from Sepulveda Westway and the Sepulveda Westway frontage shall be attractively landscaped. The design of Area 11 shall provide, to the extent practicable and

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feasible, for visual continuity and accessibility between Area 11 and the properties on the east side of Sepulveda Westway.

9. All open areas not used for buildings, driveways, parking areas, recreational facilities or walks shall be attractively landscaped in accordance with a landscape development plan prepared by a licensed landscape architect or licensed architect. Approved copies of such plans shall be submitted to the Department of Building and Safety before issuance of a building permit. All landscaped areas shall be equipped with automatic sprinklers and shall be maintained in a first-class condition at all times. All types of plants selected and required watering systems for such landscaping shall, to the extent possible, conserve water and shall be consistent with any water conservation ordinance enacted by the City.

10. All open parking areas located within Area 1 shall devote at least four percent of the parking area to landscaping, with at least three-fourths of the four percent devoted to interior landscaping distributed throughout the parking area.

11. A 6-foot-high chain link fence shall be provided along the airport property line in the following locations: Along Liberator Avenue and 88th Place (adjacent to the Emerson Manor School site in Area 12A); along Cum Laude Avenue and 92nd Street (adjacent to the St. Bernard Senior High School site in Area 2); and between Falmouth Avenue and Pershing Drive (along the north boundary of Area 1).

12. A solid 8-foot-high masonry block wall shall be constructed along the north airport property line between Loyola Boulevard and Hastings Avenue (along the north boundary of Area 2) and trees and tall shrubs shall be planted immediately south of the wall on airport property to provide additional visual screening above the wall. The wall shall be installed and measured in height from the finished grade of the alley between Loyola Boulevard and Rayford Drive and from the finished grade of the adjoining residential lots between Rayford Drive and Hastings Avenue.

13. All development on the property shall provide off-street parking on the following basis: One space for each guest room; one space for each 300 square feet of floor area for office use and for business parks and research and development centers; one space for each 250 square feet of floor area for retail and service commercial uses; 16 spaces for each 1,000 square feet of floor area for restaurants; and not less than three stalls for each four employees on the main shift for light industrial uses. Floor area shall mean the area enclosed within the walls of buildings, exclusive of floor area devoted to off-street parking or accessory areas, as defined under Section 12.21-A, 4 of the Municipal Code. The Director of Planning may modify these parking standards where appropriate to permit reduce parking in mixed-use or joint-use facilities.

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14. The hours of operation for trash pickup or freight deliveries or pickup, within 300 feet of the north boundary line of the project, shall be limited to between 7 a.m. and 9 p.m.

15. Adequate protection against exterior noise shall be included in the design and construction of hotels and motels. Adequate protection shall mean a noise reduction (exterior to interior) sufficient to insure that the interior community noise equivalent level (CNEL) in all habitable rooms does not exceed 45dB during aircraft operations.

16. All central air heating and/or air conditioning units shall be installed with an air filtration system (either charcoal or electronic) to improve the air quality effects on the project occupants. This requirement shall not preclude the installation of operable windows for passive or natural heating or cooling opportunities.

17. The use of any outdoor public address or paging system shall be permitted only south of the Westchester Parkway and shall utilize: (1) a low-pressure speaker system with each speaker having an audible range limited to a 400-square-foot area and placed a maximum of 40 feet apart or (2) a sound system designed by a qualified sound engineer so as to reduce the impulse noise level to inaudibility beyond the premises of the establishment.

18. In Areas 1, 2, 4A, 4B, 5, 6, and 7, all buildings and enclosing walls or fences shall be constructed, the machinery and equipment shall be so installed and maintained and the activities shall be so conducted that all noise, vibration, dust, odor and other objectionable factors shall be confined or reduced to the extent that there will be no reduction in the use of property by persons residing adjacent to the subject property. Whenever there is any difficulty in determining the application of these provisions to any specific case, the Department of Building and Safety shall make such determination.

19. All Building Identification Signs shall be designed by the architect of the building or facility. These Building Identification Signs shall be wall signs designed for placement on the face of the proposed building and not projecting above the roof or parapet wall. Except that free-standing Identification or Project Directory Signs not exceeding 50 sq. ft. in area on each face and not exceeding 8 ft. in height may be permitted subject to individual review and approval by the Department of Airports.

20. All lighting shall be directed onto the site and no flood-lighting shall be located as to be seen directly by the adjacent residential areas. This condition shall not preclude the installation of low-level security lighting.

21. All buildings within 100 feet of the north airport property line between Loyola Boulevard and Hastings Avenue shall be designed so that all second-story or higher windows that overlook the adjacent single-family residential homes shall

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not be transparent below an eye level of 6 feet on any floor, but shall be translucent; or the building shall be designed in such a way that windows will not overlook the single-family residential properties to the north.

22. Vehicular driveway ingress and egress from the subject property shall be prohibited from Cum Laude Avenue and from 92nd Street (Area 2); from Lincoln Boulevard between Sepulveda Boulevard and the airport property line north of the Westchester Parkway (Areas 6, 7, 8, 9, 10 and 12A); and from 88th Street, Liberator Avenue, 88th Place and Emerson Avenue (Area 12A).

23. In Areas 1, 2, 5, 6, and 7, all activities shall be conducted within an enclosed building. Within Areas 4A and 4B, all outdoor activities shall be located on the southerly side of the buildings and screened from public streets.

24. All Utilities within the project shall be installed underground.

25. All development within the project shall contain trash compactors to reduce the volume of solid waste to be removed from the site.

26. LAWA and individual developers shall develop and implement a transportation system and parking management plan which shall include the following as a minimum:

    a. Individual developers shall encourage public transit use by offering subsidized transit passes to employees.

    b. The Department of Airports shall evaluate the potential for subscription bus service for large concentrations of employees.

    c. Each developer employing 500 or more permanent employees shall provide company-owned vans and/or offer subsidies to individual vanpool operators and encourage the formation of vanpools.

    d. The Department of Airports shall make carpooling information available to building occupants and encourage formation of carpools and vanpools and shall establish a carpool-matching service.

    e. Individual developers shall develop and implement programs to offer preferential parking to carpooling and vanpooling building occupants.

    f. The Department of Airports shall make transit schedules, maps and other transit information available to building employees and users.

    g. To the extent feasible, individual developers shall encourage flexible working hours.

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    h. The Department of Airports and each developer employing 500 or more permanent employees shall appoint a rideshare coordinator to administer the functions required by this condition.

27. Prior to major grading of the project site, a rodent control effort shall be undertaken to reduce the existing rodent population within the project area.

28. Developers of individual projects shall take the following steps relative to energy conservation:

    a. Consult with the Los Angeles Department of Water and Power and Southern California Gas Company to determine feasible energy conservation features which could be incorporated into the design of structures, beyond those required by State and City laws.

    b. Utilize, where cost-effective, alternative sources of energy such as solar water and pool heating.

    c. Utilize the Department of Water and Power's energy pre-audits on all new industrial developments.

29. Individual developers shall consult with the Los Angeles Police Department on the provision of security measures for developments, which measures shall include the following at the minimum:

    a. For each developer responsible for 200,000 or more square feet of total floor area (Los Angeles Municipal Code 12.21.1), security guards shall patrol all levels of buildings and access to and from buildings shall be monitored by a security guard on duty during nighttime and weekends.

    b. Subterranean parking levels shall be lighted 24 hours a day.

    c. All parking levels, corridors and arcades shall be lighted during the nighttime and weekends.

30. A qualified archaeologist shall be available, as needed, during site grading and subsurface operations, with the authority to assure reasonable measures to insure protection and recovery of significant archaeological resources.

31. All conditions imposed by this action, with the exception of Condition No. 9 relating to a project design plan and development guidelines, may be fulfilled incrementally as individual phases of the subject property are developed.

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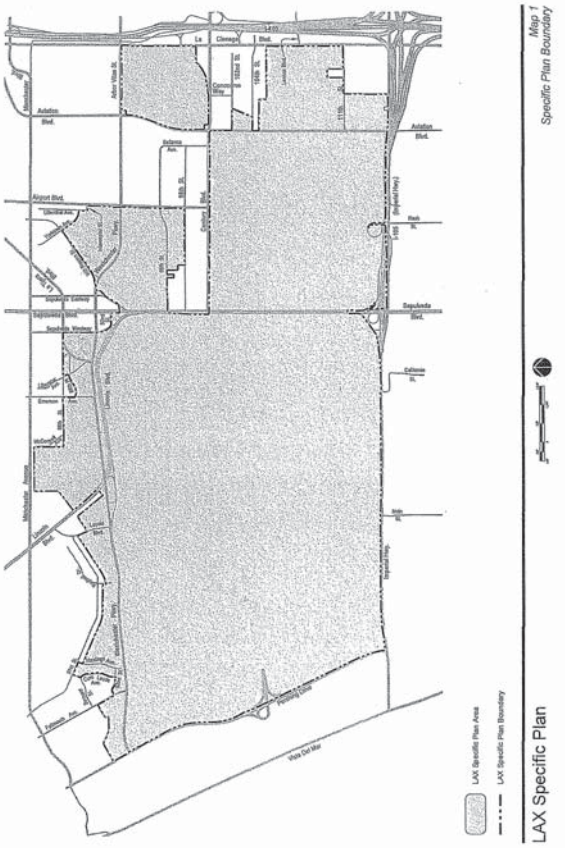

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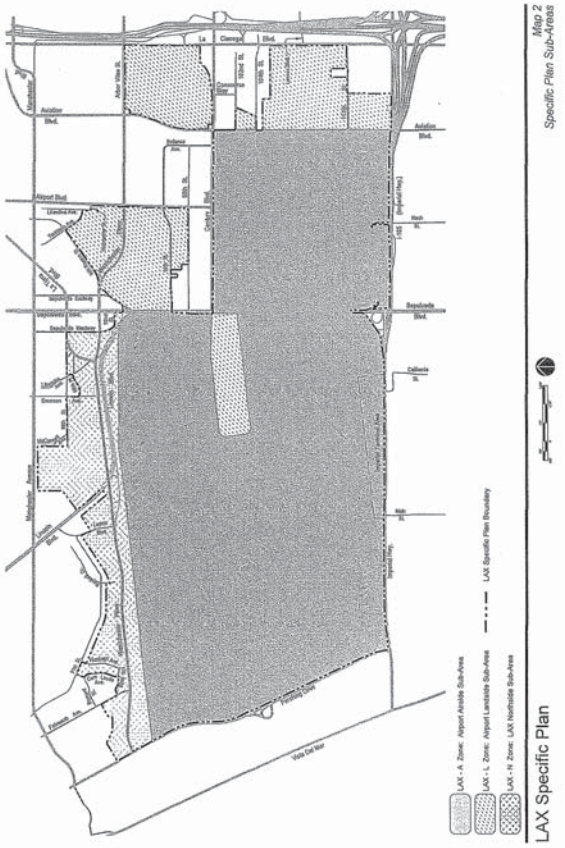

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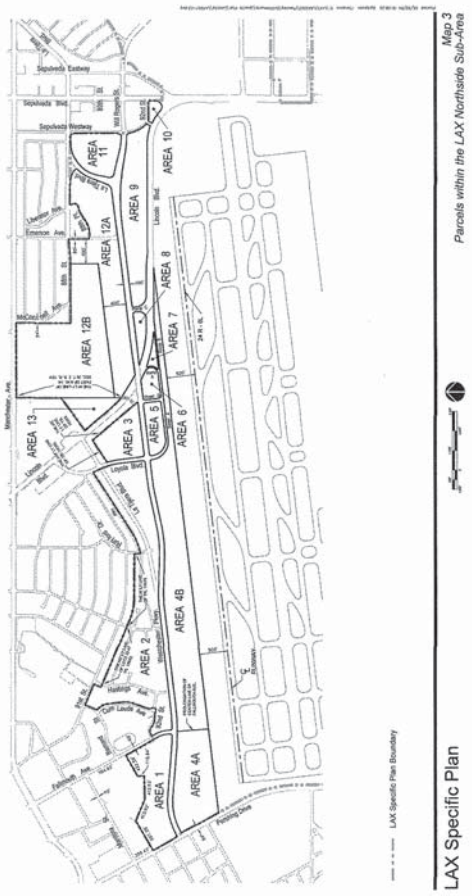

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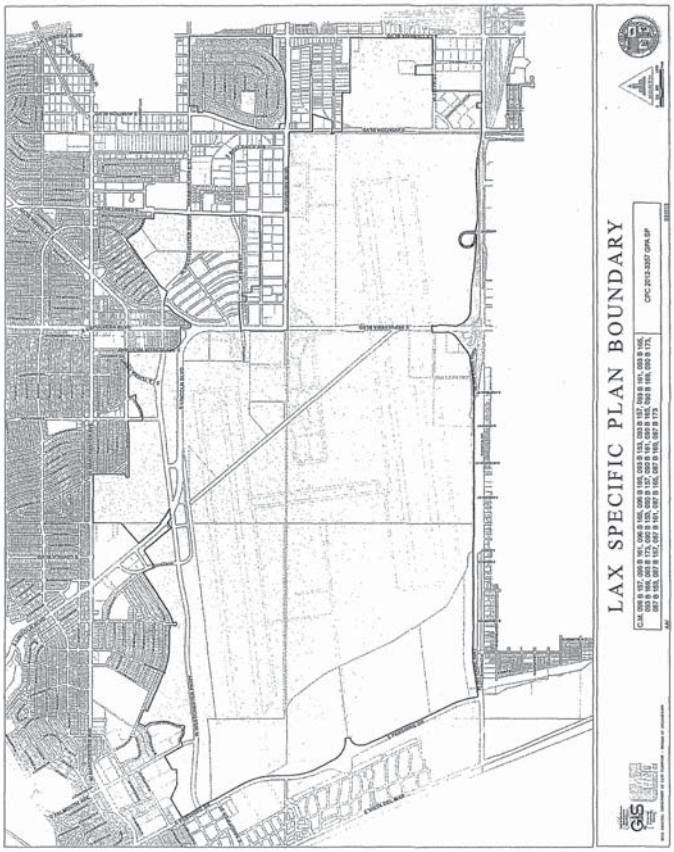

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Exhibit F

LAX Midfield Satellite Concourse North Project EIR

A photocopy of Exhibit F on the CD enclosed with the November 15, 2016 comment letter on the Draft EIR submitted by Shute, Mihaly & Weinberger LLP is available for review at LAWA Environmental Programs Group, One World Way, Room 218, Los Angeles California, 90045, or electronically on LAWA's website at: http://www.lawa.org/MSCNorth/projectdocuments.aspx.

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Exhibit G

Memorandum by Adib Kanafani, Ph.D., N.A.E.

Comments on the Draft Environmental Impact Report (DEIR) of the LAX Landside Access Modernization Program (LAMP)

Traffic Growth and Capacity Issues

The DEIR for the LAX Landside Access Modernization Program (LAMP) fails to adequately assess the growth impacts of the program on aviation activity levels, including air passengers, flight operations, and ground access traffic, and to provide mitigation measures for such growth. It assumes that the growth in aviation activity is unaffected by the program and that the same levels of activity will materialize regardless of whether the program is implemented or not. The DEIR states that airport access constraints do not affect aviation activity.

1. **Capacity Issues**: The airport is a group of components operating in sequence to accommodate traffic/passenger flow (access system-terminals-gates-airfield-airspace). Each of these components is a link in a chain and has a capacity. The lowest capacity of these links constrains flow and determines the capacity of the whole system. This was recognized by the LAX 2004 Master plan which stated: "The most constraining component defines the capacity of the entire airport". The 2004 master plan considered an unconstrained demand forecast of 98 MAP in 2015 and evaluated four alternative configurations and estimated the airport capacity for each using the principle that this capacity is constrained by that of the lowest capacity component. The four alternatives considered were:

    a. No Action No Project:
        i. Capacity of 78 MAP
        ii. constrained by the Curb and Roadways.
    b. Alternative A &B including 5th runway, increased gates, and Landside Improvement (LAMP):
        i. Capacity 97.9 MAP
        ii. constrained by 5-runway airfield.
    c. Alternative C including increased gates and LAMP improvements, but only 4 runways:
        i. Capacity 89.6 MAP
        ii. constrained by 4-runway airfield.
    d. Alternative D including LAMP improvements and limited to 153 gates:
        i. Capacity 78 MAP
        ii. constrained by gates as well as curb and roadways.

    The DEIR therefore contradicts the 2004 Master Plan which recognizes the fact that the curb and roadway (access system) can constrain airport capacity and consequently hinder growth, and that LAMP improvements will relieve this constraint and permit aviation activity to grow toward the capacity constrained by the next barrier to growth.

As shown in section 4.12.2-5 the ground traffic analysis contained in the DEIR is based on aviation activity levels of 86 MAP in 2024 and 95 MAP in 2035. These levels of activity could not be accommodated with the access system in its existing condition with its capacity of 78 MAP as determined in the Master Plan.[1]

2. **Demand Forecasting Issus**: In section 6.3.2 the DEIR maintains that the demands forecast will materialize with or without the proposed project. It quotes the FAA 2014 Terminal Area Forecasts as based on local and national economic conditions "independent of the ability of the airport and air traffic control system to furnish the capacity required to meet the demand". As such the DEIR fails to recognize the difference between "demand" and actual "aviation activity level", and makes an assumption that permits activity levels to exceed available capacities. It is clear that forecast demand levels will not materialize if the capacity is not provided to accommodate them. The DEIR further quotes the FAA as saying that "…existing constraints are "embedded in historical data" used by the FAA as a base for the forecast" and makes the wrong conclusion that there is "no correlation between activity level and existing conditions of the CTA". Existing conditions are reflected in historic data which show activity levels resulting from the interaction of demand and supply, and when the supply is limited the activity level cannot exceed that limit. Historic passenger traffic data at LAX did not, and could not reach beyond the 78 MAP capacity of the curb and roadway system, even if economic conditions created the "demand".

   The LAX Master Plan of 2004, while working in the face of 98 MAP forecast recognized that passenger traffic levels could not exceed 78 MAP unless LAMP improvements were made to release that constraint on capacity. The DEIR does not recognize this and implicitly assumes that activity levels up to the airfield capacity constrain will materialize far exceeding the stated capacity of the curb and roadway system. Such growth cannot occur unless the curb and roadway constraint is removed by the implementation of LAMP.

3. **Airport Market Share Issues**: The Los Angeles metropolitan area is served by a number of airports. In a multi-airport region passengers have a choice among airports. This choice has been the subject of many studies that are well documented in the literature. The ACRP report 98, which is quoted in the DEIR, provides a good summary of the findings on this subject. It identifies the primary drivers of airport choice in a multi-airport market such as: the price, air service

[1] For further information, please refer to "Addressing Future Capacity Needs in the U.S. Aviation System " report by Eno Center for Transportation (November 2013) (https://www.ustravel.org/sites/default/files/Media%20Root/USTravel_Eno_1.pdf), which states: "Ground access to the airport at LAX is the most significant chokehold in the airport's system and according to Los Angeles World Airports (LAWA) airport access infrastructure was projected to hit complete gridlock at 78.9 million annual passengers without improvements to the system. While 78.9 million annual passengers is a precise number [sic], it is accurate enough to mean that adding about 15 million annual passengers above the 62.6 million in 2012 will be too much for the access and gate infrastructure to handle."

quality, airline/alliance loyalty, and airport ground access. It recognizes airport accessibility as the extent to which passengers can get to the airport from their residence or place of business. This is usually measured by the access time. Numerous studies quoted here and elsewhere recognize the importance of time as a variable affecting airport choice.

LAX remains the primary airport serving the region because of its other service advantages: nonstop flights to more destinations, international connections, wider choice of airlines, etc. But the fact remains that access constraints will affect the airport's share of the market. The ACRP 98 report, concludes based on a the Los Angeles regional case study that[2]:

> *"Surface access issues across most of the regional – Passenger commute times remains a primary passenger choice driver in the Los Angeles Basin. Given the presence of several regional facilities across the area, the traffic situation in the Basin drives the airport choice for a large proportion of travelers".*

To the extent that LAMP improvements will relieve congestion in the CTA and improve travel time for passengers accessing or leaving the LAX terminal area, it will improve LAX's attractiveness relative to other airports in the region and will expand its market shed area. This has been shown to be true repeatedly in airport choice models that have consistently found significant effects of travel time as a factor in airport choice.

Another factor that has been shown to affect passenger airport and mode choice is the travel time reliability. Improving reliability is tantamount to reducing travel time because passengers will need to allow for shorter margins to avoid missing flights. The LAMP improvements will improve reliability by providing regular APM access to the CTA thereby reducing the fluctuations in travel time that arise when congestion is severe.

The DEIR simply dismisses all this by stating that the other factors such as air service quality, flight schedules, price, and loyalty program are the primary factors affecting passenger choice, and that therefore the LAMP improvements will not increase the market share of LAX.

Summary

The DEIR of the LAMP program incorrectly ignores the aviation activity growth effects of the project. It incorrectly ignores the fact that capacity constraints at the curb/roadway access system will limit airport activity, which cannot grow

[2] Parella, B.C. et. al. "Understanding Airline and Passenger Choice in Multi-Airport Regions", Acviation Cooperative Research Program ACRP 98. Transportation Research Board. Washington, D.C., 2013. *https://www.nap.edu/download/22443*

towards the forecast demand level without the improvements in the access system. LAMP improvements are designed to accommodate activity levels of 86 MAP in 2024 and 95 MAP in 2035, levels that clearly could not be accommodated with the current access system with its 78 MAP capacity.

Furthermore, the DEIR ignores the potential effect of the LAMP improvements on LAX's accessibility attractiveness relative to the other airports in the region and the resulting increase in its share of the regional market.

Recommendation

The DEIR should include a thorough and comprehensive aviation activity modeling analysis to quantify the effect of the LAMP improvements on activity considering regional demand and airport market share. The analysis should evaluate how the reduction in access time and the improvement of access time reliability will improve LAX's accessibility relative to the other airports in the Los Angeles Basin and how that will affect its market share of the total travel demand in the Basin. The aviation activity modeling analysis should also show what effect LAMP will have on passengers' mode choice to LAX and the extent if any to which LAMP will increase public transportation access to the airport. Only with such a thorough and comprehensive analysis would it be possible to assess the aviation activity and environmental impacts of LAMP.

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Exhibit H

Eno Center for Transportation, "Addressing Future Capacity Needs in the U.S. Aviation System," Nov. 2013

Addressing Future Capacity Needs in the U.S. Aviation System

November 2013

Eno Center for Transportation

Addressing Future Capacity Needs in the U.S. Aviation System

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Joshua Schank
Eno President and CEO

ABOUT ENO

The Eno Center for Transportation (Eno) is a neutral, non-partisan think-tank that promotes policy innovation and leads professional development in the transportation industry. As part of its mission, Eno seeks continuous improvement in transportation and its public and private leadership in order to increase the system's mobility, safety and sustainability.

As the leader in its field for nearly a century, Eno provides government and industry leaders with timely research and a neutral voice on policy issues. Eno's Center for Transportation Policy (CTP) publishes rigorous, objective analyses of the problems facing transportation and provides ideas for and a clear path towards possible solutions. CTP's policy forums bring together industry leaders to discuss pressing issues and hear from top researchers in the field.

Eno's Center for Transportation Leadership (CTL) is a premier training resource for the transportation industry, offering courses and seminars to develop leaders across the career span – from emerging professionals to mid-managers, senior leaders, CEO's and boards of directors. CTL connects people and ideas to enhance cross-industry knowledge and build stronger public- and private-sector organizations in the transport sector. Since its inception CTL has instructed over 3,000 transportation professionals.

While this research was funded in part by the U.S. Travel Association, our analysis is independent and solely the work of Eno staff.

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EXECUTIVE SUMMARY

The United States' aviation system plays an integral role in our economy, providing a means to transport people and goods over long distances. Passenger travel within the system is growing but the system's ability to accommodate increasing travelers may be limited. If the system is unable to offer the necessary capacity to meet passenger demand, would-be passengers may choose not to travel or choose destinations other than the United States, which could have adverse effects our economy. This paper explores the issue of system capacity in the airspace and at select hub airports, and finds that the U.S. aviation network in its current state is unlikely to provide adequate capacity to accommodate projected growth in passengers over the next 20 years.

The aviation system is responsible for approximately 4.9 to 5.2 percent of the United States' Gross Domestic Product (GDP).[1] Domestically, the aviation industry generates between $1.2 and $1.3 trillion in annual economic activity and provides between 9.7 and 10.5 million jobs.[2] International travelers contribute over $116 billion annually in direct spending to the U.S. economy. Further, in 2011 international visitors contributed $1 billion to the economy in indirect expenditures.[3] Passenger numbers are growing, and are projected to continue to increase. The Federal Aviation Administration (FAA) estimates in 2016 the U.S. aviation system will provide service to 800 annual passengers, potentially swelling to 1 billion annual passengers by 2027.[4] In order to capture the economic value associated with this passenger travel, the aviation system will have to adjust to accommodate the demanded capacity.

Capacity constraints within the aviation system stem from airport infrastructure, airport access, and the existing regulations and rules. Since deregulation, airlines are increasingly employing the hub-and-spoke system, concentrating activity at their hub airports. Recent mergers in the airline industry have resulted in a few large airlines controlling the largest shares of the market. With fewer airlines operating fewer hubs, many airports have experienced a reduction in flights and congestion. Delays at hub airports can create ripple effects and cause delays at smaller, generally uncongested airports. Not all airports within the system are experiencing capacity constraints, but due to the interconnectivity of the system those with constraints create congestion nationwide.

In order to better develop an understanding of the capacity issues at our nation's airports, we analyzed the busiest international airports in the U.S. and selected case studies that are among the busiest airports for domestic and international travel. The four airports selected for detailed review — John F. Kennedy International (JFK), Newark Liberty International (EWR), Los Angeles International (LAX), and San Francisco International (SFO) — were chosen due to their status as major hubs and international gateways, their projected growth, and their capacity constraints. The case studies demonstrate that addressing capacity problems at some of our largest hub airports will be challenging. JFK, EWR, and SFO all face substantial barriers to airside and airspace capacity expansion. The capacity constraints at JFK and EWR are the most immediate, as those airports are already nearing their maximum capacity. We estimate that the U.S. economy will lose out on over $6 billion of lost travel spending in 2016 due to unmet demand at the JFK and EWR, primarily from would-be overseas travelers. This is estimated to balloon to nearly $48 billion annually by 2034. SFO has sufficient capacity to handle increases in traffic during fair weather, but when poor visibility occurs, as it does often in the Bay Area, the capacity is severely restricted. Weather delays at SFO will grow worse as passengers increase. And while LAX has sufficient runway capacity, it has landside capacity and airport access issues that will constrain future demand.

Funding, physical space, and other political challenges have left these airports with few plans to develop needed capacity and improvements, and it is unclear which investments will have the greatest benefits to the national system. However, if we take an appropriate perspective in focus-

ing on national benefits from targeted investments solutions exist that can relieve congestion at these airports and in the larger aviation system. These solutions include:

• **Operational Changes:** Capacity improvements do not always require expensive and politically challenging infrastructure expansions, especially if they are targeted towards the areas of greatest need. One potentially cost-effective way to improve our transportation network is to use what we already have more effectively, either through a regulatory framework or through market-based pricing of valuable peak capacity.

• **Air Traffic Control Improvements:** NextGen, a nationwide state-of-the-art modernization program for air traffic control, promises to replace the existing radar-based system used by the aviation industry with a system that uses satellite based GPS. Since GPS can provide more precise location information, NextGen can allow for substantial benefits in terms of fuel costs and capacity improvements.

• **Airport Infrastructure Improvements:** At some major airports, even with operational improvements and NextGen implementation, there will not be sufficient capacity to accommodate demand. The four case studies in this report represent only a sampling of the U.S. airports that will need direct investment in landside or airside capacity in order to accommodate future growth and reduce delays.

Taking into account these potential solutions, we provide four policy recommendations:

• **Restructure the federal Airport Improvement Program to target investment to the greatest national interest:** Current AIP funds are distributed via formula, with non-primary airports receiving 35 percent of all funding and the remaining spread amongst the remaining primary airports. Reforming the AIP to target funding to where it provides the greatest national benefit would go a long way towards making adequate funding available to support necessary upgrades in our aviation infrastructure.

• **Create a new federal discretionary grant program to address improvements and innovation in airport operations:** The new discretionary program would be targeted more towards the political obstacles than the funding obstacles, and more towards operations than infrastructure. Airports and other entities wishing to relieve congestion in the national aviation system could apply for grants from the FAA. By creating competition with ideas around the country for relieving congestion and creating national economic benefits, this program could foster innovative ideas such as peak runway pricing or other operational changes.

• **Explore the idea of separating the air traffic control and safety functions of the FAA to accelerate the delivery of NextGen:** The simplest way to separate these functions is to create two separate government agencies, but another alternative would be to corporatize the new entity into a nonprofit. Either way might allow the new organization to behave more like a business with respect to investment decisions, particularly related to NextGen, and provide operators with more certainty about technological advances.

• **Relax the current federal restrictions on the airport PFC to allow airports to raise revenues from users:** While from a policy perspective it is understandable that the federal government might want to regulate how much airports can charge passengers, this is an argument for maintaining a cap on PFC charges, not for maintaining it at the current rate of $4.50. At a minimum, the FAA should be given discretion to increase the PFC cap if and when an airport can demonstrate the need for more investments in order to accommodate demand in the national aviation system.

We recognize that there are substantial barriers to implementing these policy recommendations, including from existing stakeholders. Given the stakeholder limitations and the very real national need to address capacity constraints in the U.S. aviation system, a large effort by non-stakeholders will likely be necessary to address this problem from a national perspective. Change will likely occur only when the larger business community comes together to call for substantive policy changes addressing how we operate and fund our aviation infrastructure.

The aviation system plays a fundamental role within our economy and within our transportation system, both domestically and worldwide. As demand grows, the aviation system must adjust and grow with it or risk the potential loss of revenue and negative affects on our economy. Solutions exist, and while they are politically challenging, they have the potential to be moved forward. If we are successful, the United States will have the ability to remain as a global competitor in aviation travel.

INTRODUCTION

The aviation system in the United States is an essential component of the U.S. economy, providing a means for efficient, long haul travel. The FAA, an operating administration of the U.S. Department of Transportation (USDOT), currently predicts an annual passenger growth rate of 2.2 percent, adding an additional 400 million annual passengers to the system by 2033.[5] Yet our nation's aviation infrastructure may not be capable of accommodating the predicted growth in demand. A few of the United States' largest hub and international airports are already congested and demand is projected to increase.[6] This congestion creates systematic delays, increases costs, adversely affects passenger experience, and ultimately hinders would-be travelers from planning trips to the U.S.

This paper examines the following aspects of the national aviation system:

- Aviation's impact on the economy and growth in air travel
- Capacity constraints in the national aviation system
- Capacity constraints at the largest international gateway airports
- Potential capacity solutions

The exploration of these issues demonstrates that the present aviation system, and its planned expansions, is unlikely to provide adequate capacity to accommodate projected growth in passengers over the next twenty years. The problem is most acute at a few large airports that significant barriers to increasing their capacity. Not addressing these problems would result in net economic losses and a diminished travel experience within the United States. The U.S. has the potential to be a global competitor in terms of travel, but failing to implement system-wide innovations to provide for the projected increase in passenger demand will result in our nation falling behind. Solutions exist, but current federal policy in aviation is not oriented towards maximizing national economic benefits that could result from improvements to our aviation system. Substantial legal and political barriers must be overcome in order to implement these solutions and ensure that future demand for travel within and to the United States, and the economic benefits associated with it, can be captured. But our analysis indicates that this is a challenge that is worth the effort.

Research Approach

Our analysis examines projected growth in aviation for both domestic and international passengers. It examines where capacity constraints exist both within the broader aviation network and at four large international airports used as case studies:

- New York John F. Kennedy International Airport (JFK)
- Newark Liberty International Airport (EWR)
- Los Angeles International Airport (LAX)
- San Francisco International Airport (SFO)

For each case study we identify specific capacity constraints, barriers to overcoming those constraints, and their current and projected impacts on travel. Finally, the analysis examines stakeholders and policies, evaluating how they are working to address this problem. The paper concludes by presenting a number of policy recommendations to overcome those barriers by better orienting federal policy towards the national benefits of reducing congestion in our aviation network.

AVIATION'S IMPACT ON THE ECONOMY

The value of the nation's aviation system is partially rooted in its ability to continually contribute to the United States' economy. Aviation bolsters the U.S. economy and well-being by facilitating the flow of information, goods, investment, and human capital, providing a means for international and domestic travelers to invest in U.S. products and services, and fostering global connectivity for business and personal benefit.

Commercial aviation's role in the United States' economy establishes an incentive to maintain and grow the nation's system, strengthening our fiscal resiliency. This section provides insight into this economic role, reinforcing this pivotal relationship.

The aviation system provides a potential vehicle for increased economic benefits if the U.S. is able to accommodate and stimulate growth in passenger and freight traffic. An August 2011 FAA report[7] found that commercial aviation was responsible for 4.9 to 5.2 percent of U.S. gross domestic product (GDP), a value echoed in a May 2012 report by the International Air Transport Association (IATA)[8] that estimated $669.5 billion in GDP (4.9 percent). Of that share, IATA found that $206.4 billion (30.7 percent) was contributed directly by airlines, airports, and related ground services.[9] According to the FAA, the U.S. domestic aviation industry generates $1.2-$1.3 trillion in overall annual economic activity and between 9.7 and 10.5 million jobs.[10]

International visitors alone contribute over $116 billion in direct spending to the U.S. economy.[11] The average overseas traveler spends more than $3,200 on a visit to the United States, while the average traveler from China, a rapidly growing market segment, spends over $7,000 per visit.[12] Further economic benefits also result from exchanges that occur during international visitors' stay on U.S. soil. Spending from international travelers in the U.S. hovered between $400-500 billion annually from 1995-2003, and in the past decade has been increasing, reaching over $1 billion in 2011, demonstrated in Figure 1. In 2009, U.S. air carriers transported 793 million passengers over $1039 billion revenue passenger miles. These passengers spent a collective amount of $249 billion on aviation goods and services, not to mention other spending on travel related goods or business activity.[14] U.S. airports provide 361 direct connections to international cities whose populations exceeds 10 million, with more than 900,000 international flights per year to 279 airports in 108 countries. As a result, the U.S. is one of the world's best-connected economies relative to its economic size.[15] More than 53 billion revenue ton-miles of scheduled freight passed through U.S. airports in 2009, and around $562 billion of freight was transported domestically to other countries.[16] Table 1 summarizes the economic impact of the commercial aviation industry as reported by the FAA, highlighting the importance of the industry to the economy.

Figure 1: U.S. International Travel Receipts[13]

Economic Impact of Commerical Aviation on the U.S. Economy (2006-2009)	
Economic Activity/Output (annual)	$1.2 - $1.3 trillion
Personal Earnings (annual)	$370 - 405 billion
Share of GDP	4.9 - 5.2%
Job Impact	9.7 - 10.5 million jobs

Table 1: Economic Impact[17]

PASSENGER GROWTH IN AIR TRAVEL

Aviation is an economic driver that is currently undergoing substantial growth both domestically and internationally. The most recent passenger projections were released in the FAA's annual Aerospace Forecast Fiscal Years 2013-2033 (Figure 2), estimating that in 2016, the U.S. will handle 800 million total annual passengers, growing to 1 billion by 2027, and potentially reaching 1.2 billion by 2033.[18] While the total number of domestic passengers is growing faster than international passengers, the rate of growth for international traffic is higher, with most new traffic expected to originate from Latin America and Asia. International passengers are expected to grow to account for 16 percent of total passengers in 2033, up from 11 percent in 2012.

Under the assumption of "stable worldwide economic growth," the FAA projects international passenger enplanements, or boardings, to total 185.7 million in 2033, illustrated in Figure 2. For domestic travel, the FAA estimates a stable growth rate of passenger traffic at 2.1 percent through 2033, leading to a projection of 1.15 billion enplaned passengers by 2033.[19] Passenger trip length is forecasted to continue to increase through 2033, reflecting an increase in longer domestic and international trips.[21]

International Vistiors

Though international travelers only account for 11 percent of the total traffic in the U.S., the international market is a key driver of growth. International passengers contribute disproportionately to the economy and constitute a large portion of travelers at the largest hub airports. Since 2003, the number of international arrivals to the U.S. has grown relatively continuously, hitting a record high 67 million in 2012.[22] The U.S. is projected to remain the single largest market for international passengers globally, with Department of Commerce projections estimating 76.6 million visitors in 2016, and 106.6 million by 2034.[23]

While Canada and Mexico continue to be the largest source of international passengers, growth from overseas Latin American and Asian markets is leading projected demand. Table 2 shows the top ten inbound markets to the U.S., with Brazil and China doubling traffic from 2008 to 2011.

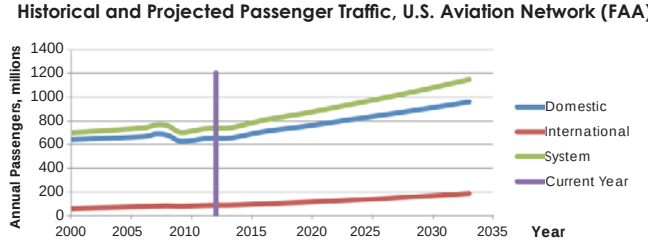

Figure 2: Projected Growth in the U.S. Aviation Market, Annual Passengers (millions)[19]

According to the U.S. Department of Commerce, international air traffic to and from the U.S. totaled 89.7 million passengers from June 2012 to June 2013. Of that, 40 million were U.S. citizens, and the remaining 49.7 million were non-U.S. citizens. Of the total number of international air traffic, U.S. operated airlines carried 48.3 million passengers and foreign airlines carried 41.4 million passengers out of American airports.[25] Foreign carriers play a major role in transporting international passengers, yet they often rely on U.S. carriers to shuttle passengers to their final destinations beyond the gateway airports.

Recent trends are expected to continue, with air travel projected to continue to increase on a global scale over the next 20 years. IATA projects global air traffic to reach approximately 3.6 billion passengers in 2016, suggesting a 5.3 percent annual passenger growth rate from 2016 to 2011.[26] Figure 3 illustrates the continuous growth of world international tourist arrivals since 1995, hovering around 1 billion in 2011.

Although inbound international travel to the U.S. is increasing, the U.S. has lost significant market share globally over the past decade. In part due increased economic activity in other regions of the world and in part due to security and visa restrictions imposed after September 11, 2001, the U.S. market has declined from 17 percent of the global market in 2000 to 12.4 percent today.

In efforts to raise this market share, the groups are encouraging Congress to reform security and visa procedures. However, if U.S. hub and international airports lack capacity to move these would-be passengers, such efforts will not be as effective as they could be.

Providing capacity for the projected growth in both domestic and international passengers and recapturing lost global market share could have considerable benefits for the U.S. economy. In order to reclaim any previous loss in the global market, however, substantial and innovative policy changes and infrastructure investments will likely be required.

Origin Countries of Foreign Arrivals into the U.S.

	2008	*2009*	*2010*	*2011*
Canada	18,915,000	17,977,000	19,964,000	21,337,000
Mexico	13,686,000	13,229,000	13,469,000	14,391,000
United Kingdom	4,564,895	3,899,167	3,850,864	3,835,300
Japan	3,249,578	2,918,268	3,386,076	3,249,569
Germany	1,782,299	1,686,825	1,726,193	1,823,797
Brazil	769,232	892,611	1,197,866	1,508.279
France	1,243,942	1,204,490	1,342,207	1,504,182
South Korea	759,394	743,846	1,107,518	1,145,216
China	492,958	524,817	801,738	1,089,405
Australia	689,927	723,576	904,247	1,037,852

Table 2: Arrivals from the Top 10 Inbound Countries to the U.S.[24]

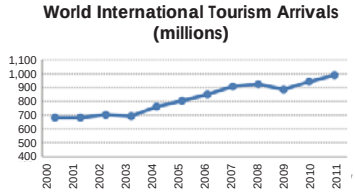

Figure 3: World International Tourism Arrivals[22]

CAPACITY CONSTRAINTS IN THE NATIONAL AVIATION SYSTEM

The U.S. aviation network's ability to accommodate growing passenger demand is pivotal for the industry and the economy. This section examines the national aviation network in terms of capacity, demonstrating the interconnectedness of the system and establishing the necessity for a system-wide approach to capacity constraints.

According to the 2011-2015 National Plan of Integrated Airport Systems (NPIAS) released by the FAA, there are currently over 19,700 airports operating in the United States today. About 5,000 of those airports are open to the general public, and a little over 500 of those airports offer commercial service.[29] Of those, 382 airports are considered "primary," defined as airports with more than 10,000 annual passenger boardings. Primary airports are responsible for 99.75 percent of all commercial air passenger traffic in the United States.[30] The largest primary airports handle an outsized proportion of that traffic: the 20 busiest airports in the U.S. handle more than 57 percent of all air passengers.[31] Commanding the bulk of aviation passengers, congestion and capacity issues at the largest airports have a greater effect on the aviation system as a whole. This analysis focuses on primary airports, specifically the largest hubs, and their capacity to accommodate aircraft and passengers.

There are three principal types of aviation capacity discussed in this analysis:

- **Airside Capacity**: Runways and taxiways at airports
- **Landside Capacity:** Terminals and gates to process passengers, and ground access and, parking
- **Airspace Capacity**: Regulations and rules on minimum separations between aircraft in flight

Capacity Projections

In the United States, the FAA is the principal authority for traffic projections for the nation's aviation system. The most recent FAA capacity analysis report, "Capacity Needs in the National Airspace System 2007-2027 (FACT 2)" was released in 2007.[32] It contains capacity analyses of existing U.S. airport infrastructure and projects airport capacity for the 291 largest commercial service airports in the country for the years 2007, 2015, and 2025. FACT 2 identifies airports with capacity or delay constraints and makes recommendations for the expansion of these airports based on FAA air passenger traffic projections.

FACT 2 indicates that the number of smaller and medium hub airports needing additional capacity has decreased, while the number of large hubs needing capacity has increased.[33] This has been the result of a greater concentration of airport traffic at the largest airports and an increased intensity of use of the hub-and-spoke air traffic model by the largest domestic airlines.

In the 2007 report, the FAA identified four airports that needed immediate capacity expansion: Newark (EWR), Fort Lauderdale (FLL), O'Hare (ORD), and LaGuardia (LGA). By 2015, the report predicts that 18 airports will need capacity beyond current infrastructure and in 2025 that number will grow to 27. The report was produced and published with data and projections made prior to the recession in 2008 but air traffic has since rebounded to pre-recession levels and demand is expected to continue to grow.

Many of the issues that were facing the U.S. aviation network in 2007 are still relevant today. Aside from passenger volumes, other changes in the aviation network since 2007 have had

Airline	Merged Into	Year
America West	U.S. Airways	2005
Northwest	Delta	2009
Midwest	Frontier	2010
Continental	United	2010
AirTran	Southwest	2011
U.S. Airways	American	2013 *(proposed)*

Table 3: Major U.S. Airline Mergers, 2004-2013

substantial effects on the capacity of the network.

Delays resulting from restricted capacity and increased demand do not affect all airports evenly. Airline consolidation has resulted in fewer hub airports, and remaining airlines have concentrated their presence and air routes at those airports. The aviation industry once had dozens of airlines serving many domestic and international markets, but in the past decade several airline mergers have occurred, shown in Table 3. Assuming the U.S. Airways and American merger is completed, the five largest airlines (American Airlines, Delta, United, JetBlue, and Southwest) will control over 73 percent of all domestic air traffic.[34]

In June 2013, Gerald Dillingham, Director of Physical Infrastructure Issues at the Government Accountability Office (GAO), testified before the U.S. Senate on how mergers could lead to reductions in redundant hubs, specifically in the case of the proposed American Airlines and U.S. Airways merger. He reminded the audience that, "Following the American acquisition of Trans World Airlines (TWA) in 2001, St. Louis ceased to be an American hub and following the Delta–Northwest merger, service at Delta's hub in Cincinnati and Northwest's hub in Memphis has been greatly reduced."[35]

Table 4 shows how some medium hub airports such as Cincinnati, Cleveland, and Memphis have experienced dramatic declines in passenger traffic since 2006, due in part to the number of mergers that have already occurred. Some of the decline can be attributed to the economic recession, but since 2006 overall air traffic in the U.S. is up almost 5 percent.

The airports that have experienced traffic reductions have not necessarily experienced a corresponding reduction in delayed flights. At each of the five airports listed in Table 4, all experienced only a moderate increase in on time performance.[37] The average delay per delayed aircraft increased at the airports except for St. Louis and Pittsburgh, which only saw a modest decline in delay time, shown in Figure 4. A reduction in traffic at a specific airport does not always reduce the amount of delayed aircraft or passengers in a hub-and-spoke system because initial delays radiate throughout the system.

Since deregulation in 1978, the airline industry has relied increasingly on the hub-and-spoke network to organize air traffic. This system results in the necessity for most travelers, both domestic and international, to make a connecting flight to reach their final destination. The interconnectivity of the aviation network results in delay increases having strong ripple effects across other large airports across the entire country.

Moreover, with fewer airlines operating larger networks, the number of medium-sized hubs is falling and the passenger volumes at the large hubs are increasing.[39] The consolidation of more traffic to fewer airports constrains capacity at the larger hub airports, even if overall traffic is not growing. This can be made worse when an airline, in an effort to create convenient schedules for passengers, schedules more flights than the airport can realistically handle. In many cases delays at hubs are not

Hub Airport	Hub Airline	Departing Passengers (2006)	Departing Passengers (2012)	Change
Cincinnati	Delta	7,506,000	2,813,000	-62.5%
Cleveland	Continental	5,298,000	4,194,000	-20.8%
Memphis	Northwest	5,288,000	3,320,000	-37.2%
Pittsburgh	US Airways	4,841,000	3,808,000	-21.3%
St. Louis	American	6,877,000	6,103,000	-11.3%

Table 4: Passengers in Mid-sized Hub Airports[36]

directly caused by limited capacity at those hubs, but by tight scheduling of flights by airlines to accommodate their hub-and-spoke network.

FAA's FACT 2 report states that "not only is the volume of aircraft at most large hubs expected to increase over the next 20 years, the mix of aircraft operating at most large hubs is also expected to become increasingly complex over the forecast period."[40] Although overall activity at control towers fell in 2011, activity at the largest airports increased and delays remained at historically high levels. In the last five years, large airports have experienced a higher rate of increase in total enplanements than smaller airports, and it is likely that this increased demand will continue to cause congestion and delays.

The magnitude of these global passenger growth trends demonstrates the importance of domestic and international travel for the economic vitality of the United States. In response to these projections for increased domestic demand and a heavy influx of international visitors to the U.S., the state of the nation's aviation system needs to be examined.

Capacity Constraints at the Largest International Gateway Airports

In order to develop a better understanding of the capacity issues at our nation's airports, we analyzed the busiest airports in the U.S. to select case studies that 1) are among the busiest airports for domestic and international travel; and 2) demonstrate significant capacity and delay problems. The four airports selected for detailed review — John F. Kennedy International, Newark Liberty International, Los Angeles International, and San Francisco International — were chosen due to their status as major hubs and international gateways, their projected growth, and their capacity constraints. These airports are not the only airports with capacity constraints, but they highlight areas that are experiencing the greatest problems. The Appendix presents the selection process for these four detailed case studies. Tables 5 and 6 summarize the findings and conclusions of the Appendix.

Our analysis found that congestion problems were mostly limited to a few airports. Other large hub airports, such as Miami, Atlanta, Chicago-O'Hare and Denver, have experienced increased volumes but have made investments in infrastructure to enable them to handle projected demand for many years. The following section describes the case studies, examining their existing and future landside, airside, and airspace capacity.

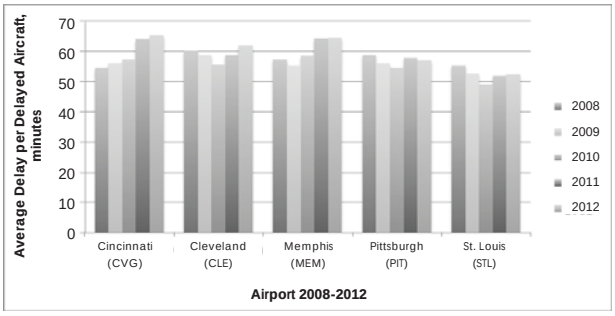

Figure 4: Average Delay at Mid-Sized Hub Airports[38]

Airport Code	Total Passengers (2012)[41]	Int'l Passengers (2012)[42]	Percent Int'l (2012)	Share of Domestic Connecting Passengers (2009)[43]	Passenger Growth Rate (2003-2013)[44]	Largest Airline Carriers (2012)[45]
JFK	49,034,266	24,774,644	51%	29%	68.7%	JetBlue (38.6%) Delta (22.6%) American (16.7%)
EWR	33,952,143	11,145,313	33%	29%	17.4%	United (50.1%)
MIA	37,033,951	18,516,559	50%	49%	33.9%	American (71.4%) Delta (11.2%)
ATL	91,466,491	9,576,889	10%	69%	21.4%	Delta (66.4%) AirTran (13.7%)
LAX	62,604,533	16,541,798	26%	28%	20.3%	United (18.7%) American (18.7%) Southwest (15.9%)
ORD	64,222,204	10,187,557	16%	54%	5.0%	United (27.5%) American (22.5%)
SFO	42,616,804	9,144,975	21%	27%	32.4%	United (37.9%) SkyWest (11.4%)
IAH	38,020,084	8,477,922	22%	60%	20.6%	United (57.7%) ExpressJet (20.9%)
IAD	21,610,571	6,461,788	30%	45%	55.9%	United (42.0%) ExpressJet (13.6%)
DFW	56,033,767	5,805,920	10%	61%	15.1%	American (85.1%)
PHL	29,179,750	3,735,700	13%	41%	32.6%	US Airways (40.6%) Southwest (8.7%)
BOS	28,620,708	4,064,918	14%	-	33.2%	JetBlue (28.0%) United (13.4%) US Airways (13.0%)

Table 5: Airport Information Related to Passengers, Summary of Analysis in the Appendix

Airport Code	Airport Footprint in Acres[46]	Number of Runways[47]	Investment in Runway Capacity Over Past Decade?	FAA Slot Control	Terminals[48]	Gates[49]	Expected Landside, Airside and/or Airspace Capacity Problem?
JFK	5,200 acres	4	Yes	Yes	8	117	Short Term
EWR	2,027 acres	3	No	Yes	3	61	Short Term
MIA	3,300 acres	4	Yes	-	3	119	Long Term
ATL	4,700 acres	5	Yes	-	2	239	Medium Term
LAX	3,500 acres	4	Yes	-	9	153	Short Term
ORD	7,627 acres	8	Yes	-	4	172	Long Term
SFO	5,207 acres	4	No	-	4	87	Short Term
IAH	10,000 acres	5	No	-	5	181	Long Term
IAD	13,000 acres	4	Yes	-	1	144	Long Term
DFW	17,207 acres	7	No	-	5	195	Long Term
PHL	2,302 acres	4	No	-	6	129	Long Term
BOS	2,384 acres	6	No	-	5	103	Medium Term

Table 6: Airport Information Related to Capacity, Summary of Analysis in Appendix A

In the last five years, large airports have experienced a higher rate of increase in total enplanements than smaller airports, and it is likely that increased demand will continue to cause congestion and delays.

JOHN F. KENNEDY INTERNATIONAL AIRPORT (JFK)

NEW YORK, NEW YORK

Located 20 miles to the southeast of Manhattan, in Queens, New York, John F. Kennedy International Airport (JFK) is the nation's largest international aviation gateway. In 2012 JFK moved 49 million total passengers and 25 million international passengers.[50]

It is one of the nation's most congested airports, and despite the recession, international passenger growth has steadily increased since 2003, overtaking the amount of domestic traffic in 2012, shown in Figure 5. Six out of the ten most heavily traveled routes in the country go through JFK airport, and according to the FAA, a third of the nation's air traffic passes through the New York City region's airspace, which includes nearby Newark Liberty International (EWR) and LaGuardia International (LGA) airports.[51]

JFK has also experienced an increase in the number of overall aircraft movements since 1998.[53] Aircraft movement growth has resulted from scheduled passenger traffic, while cargo, commuter, and other small aircraft usage has declined dramatically. Traffic peaked at the airport in 2007 at more than 440,000 movements per year and has since declined slightly to about 409,000 movements per year in 2011.[54] The maintained traffic levels after 2007 reflect increased load factors on aircraft.

JFK is a major hub for three domestic airlines: JetBlue (38.5 percent of JFK's flights in 2012), Delta (28.8 percent), and American (16.5 percent).[55] Sixty-five international carriers additionally serve JFK.[56] New York City is the largest urban area in the United States, and many passengers traveling through the airport originate from, or make their final destination, the NYC area. However, JFK also serves as a hub for connecting flights for domestic and international travelers. In a 2012 passenger survey, 18.4 percent of all departing passengers at JFK connected through the airport, with 8.4 percent connecting from a domestic flight, and 10.1 percent connecting from an international flight.[57] These values are much lower than other large hub airports, such as Atlanta that is dominated by a single airline and where nearly 70 percent of passengers are connecting to another flight, but the value suggests that around nine million annual passengers flying through JFK continue on to other destinations, making delays at JFK ripple across the aviation network.

John F. Kennedy International Airport

Current Capacity

JFK has eight terminals and 117 gates to serve its passengers. Since 2012, the airport has added a new international terminal, JetBlue's Terminal 5, and improved Delta's Terminal 4. As a result, landside capacity has improved.[58] JFK still has a dated, and relatively inefficient, terminal and access design, but the airport is making some investments to improve the condition. JetBlue's domestic airline operations are based out of JFK and the air carrier recently opened a new terminal that includes additional gates and new international arrival facilities.[59] Delta has also made investments into their presence at JFK, completing a $1.4 billion Terminal 4, adding nine new gates, and streamlining passenger areas.[60] Along with improving the condition of the terminals, the airlines that are investing will likely want to increase their traffic to make the investment worthwhile.

Airside capacity constraints are mainly due to the airport's intersecting four-runway design. JFK can operate a maximum of 81 flights/hour per FAA slot-control regulations, making it one of the FAA's few slot-controlled airports in the United States. Departure "slots" are allocated for JFK by the FAA for specific days of the week and must be used at least 80 percent of the time for that day during a scheduling season.[61] Though FAA slot-control regulations allow JFK 81 flights/hour, demand frequently reaches 90-100 flights/hour during several peak hours throughout the day, shown in Figure 6.[62] By 2030, demand is expected exceed capacity for most of the day.

By 2030, demand for the three largest New York region airports is expected to increase by 50 million passengers. A report by the RPA predicts "serious capacity deficiencies [at JFK] will become even more apparent in the next 10 years," with demand predicted to rise to 110-130 flights/hour throughout the day.[64] Based on current delays at JFK, the FAA predicts that additional runway capacity at JFK will be required to meet demand through 2015 and beyond.[65]

In addition to airside capacity constraints, airspace capacity issues also create delays. Because JFK operates closely with two other large airports (EWR and LGA) within a very small geographic area, overlapping airspace creates a "tremendous air traffic management challenge."[66] As a result of the overlapping airspace, in certain wind conditions JFK must stagger and restrict operations to separate arrivals and departures from EWR and LGA, giving less flexibility to an already-constrained network.

Many of the challenges of overlapping airspace can be addressed through the use of technologies that will modernize the air traffic control system and "disentangle the airspace conflicts among the [NYC] region's airports."[67] In the U.S., these technologies are embodied in NextGen, the program overseen by FAA that promises to "transform air traffic control from current ground-based

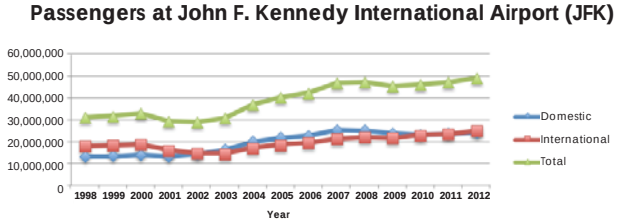

Figure 5: Passengers at John F. Kennedy International Airport (JFK)[52]

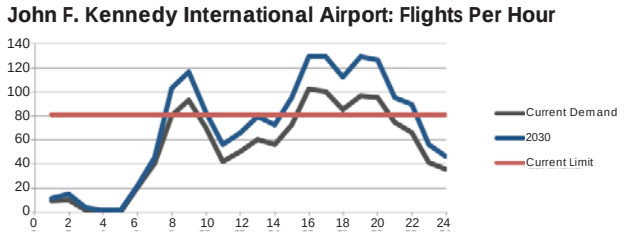

Figure 6: John F. Kennedy International Airport - Flights Per Hour[63]

technologies such as radar to satellite-based technologies such as GPS and digital communications." [68] NextGen technologies would modernize U.S. Air Traffic Control (ATC) and enable aircraft to fly closer within the airspace, likely expanding capacity and realigning departure and arrival airspace routes. NextGen is many years away from implementation, and is not expected to solve all of the region's capacity problems alone.

Future Capacity

Congestion problems at JFK are not new and are expected to worsen over the coming decades. To address the aircraft and passenger demand predictions, the New York-New Jersey Port Authority and the RPA have examined several alternatives to expanding both JFK's passenger and runway capacity. Though the Port Authority recently improved one of JFK's busiest runways with a $376.3 million widening and taxiway upgrade, the airport will need additional capacity to handle demand.[69]

The 2011 RPA proposed four options to increase runway capacity at JFK airport. Three of these options require filling in a large section of Jamaica Bay or obtaining additional land outside the current airport land to build and extend existing runways. The fourth option proposes to reconfigure runways, but would affect air traffic and noise over parts of Queens. In line with the RPA's recommendations, the Port Authority has also cited the expansion of operational capacity as "the best long-term approach to congestion management" at JFK.[70] Land acquisition from the Bay or the neighborhoods will be very challenging, and the report does not cite a recommendation for funding the expansion. Even if the runways are expanded, the airspace conflicts with the other airports might still pose problems to capacity, especially in inclement weather.

Failure to address capacity issues has direct consequences because the airports cannot handle traffic beyond current levels. These consequences include a loss of 3.1 million annual passengers by 2016 and over 10 million annual passengers by 2024 calculated using projections provided by the Port Authority and the RPA.[71] Of these over 50 percent are would-be international travelers, meaning that the U.S. economy will lose out on over $3.7 billion in annual spending by overseas travelers by 2016, increasing to over $13 billion by 2024 and over $25 billion by 2034. Unmet domestic travel demand has a less significant spending impact, but this still accounts for over $2.5 billion in annual spending by 2024. Forecasted out to 2034, when unmet demand for domestic and international travel reaches over 20 million annual passengers at JFK, the lost economic opportunity is approximately $30 billion annually to the U.S. economy, accounting for over 160,000 jobs.[72]

The potential expansion of JFK has received strong criticism from environmental groups, New York lawmakers, local citizens, and will likely require comprehensive study and public support to proceed.[73] To date, none of the runway construction projects have moved forward, with the largest barriers being environmental and political.[74] Meanwhile the need for additional capacity to meet demand at JFK is immediate, pressing, and has national implications.

CASE STUDY 2: NEWARK LIBERTY INTERNATIONAL AIRPORT (EWR)

NEWARK, NEW JERSEY

As the oldest airport in the New York metropolitan area, Newark Liberty International Airport (EWR) is located 16 miles southwest of Manhattan, and moved close to 34 million passengers in 2012, shown in Figure 7.[75]

As an international hub, EWR sends a significant amount of passengers to the rest of the country: in 2012 nearly half of all departing passengers were connecting from a domestic or international flight.[76] Much like JFK, EWR has experienced consistent congestion-related problems as it increases its load as a major hub and a large international gateway airport.

The number of aircraft movements at EWR has been slowly declining for the last decade from a peak of 455,000 in 1998 to 410,000 in 2011, tracking closely with the passenger levels seen in Figure 7.[78] Unlike at JFK, where growth in aircraft movements is due to scheduled passenger service, EWR has lost scheduled passenger service flights, while commuter flights have been steadily increasing.[79] This is likely the result of the increased presence of United Airlines' hub flying an increased number of regional jets for its longer distance service.

Airplanes taking off at Newark Liberty International Airport

United Airlines commands the largest portion of EWR's flight operations (64.8 percent of EWR flights in 2012). United will likely remain one of the largest air carriers at EWR in years to come, suggested by plans to invest $150 million into their terminal to create a more streamlined experience for passengers.[80] Other airlines that operate out of EWR include Delta (6.1 percent of flights), JetBlue (5.6 percent), and US Airways (5.4 percent).[81]

Current Capacity

EWR operates three terminals and 61 gates to handle passengers and aircraft. Current plans to expand United's terminal are underway. However like at JFK, the majority of the problems facing EWR are airside. EWR currently operates three runways – two parallel and a third intersecting. Using these three runways, EWR is able to provide for 81 operations/hour per FAA slot-control regulations. Similar to JFK, EWR slots are allocated for specific days and time periods, and airlines allocated slots must use these slots at least 80 percent of the time.[83] A 2011 study by the RPA shows that demand at EWR is at or exceeding

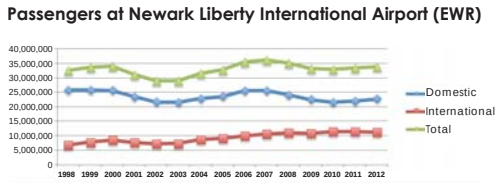

Figure 7: Passengers at Newark Liberty International Airport[83]

the capacity for a significant portion of the day, shown in Figure 8. Like JFK, by 2030 the demand will be significantly greater than the current capacity for most of the day.

EWR has faced significant challenges operating flights in the constricted NYC airspace. EWR has the strongest airspace conflicts with Teterboro Airport (TEB, a busy airport for corporate and private aircraft) and LGA. NextGen is expected to help with the conflicts, improve safety, and increase capacity, but will not be enough to completely resolve the demand constraints facing EWR.

Delays at EWR have been cited as the worst in the country, resulting in the "least-loved" (according to CNN) airport award and the worst on-time departure rate of any of the top 29 U.S. airports tracked by USDOT.[84] In 2012, almost 30 percent of flights at EWR had delays of 15 minutes or more, and only 69 percent of flights arrived on schedule, resulting in delays not only to travelers using EWR, but also to travelers that connect to and from EWR as a hub.[85] The RPA predicts that delays will continue to deteriorate unless capacity improvements are made, as the demand for travel at EWR is predicted to grow substantially over the next 20 years.

Future Capacity

Natural and manmade barriers to EWR, including the New Jersey Turnpike, have challenged the future growth of both airside and landside capacity at EWR. The RPA addressed specific strategies for capacity expansion at EWR in a 2011 report, recommending the construction of a third parallel, longer runway at EWR.[86] However, this would require the demolition of Terminal B and parts of Terminals A and C. Though the possibility of constructing a new, major airport outside of the NYC region to handle the region's air travel demand has been considered, RPA concludes that no new construction within 40 miles would be as economically efficient as expanding the region's three existing airports incrementally.

Also like JFK, EWR is at its capacity limit, and failure to address capacity constraints will result in lost passengers for the New York region and the rest of the country due to unmet demand. For EWR this means losing out on 1 million additional annual passengers by 2016 and over 5 million annual passengers by 2024, using projections provided by the Port Authority and the RPA.[87]

The economic case for expanding EWR is as compelling as it is for JFK, with $1 billion, $4 billion, and over $8 billion in lost economic spending for 2016, 2024, and 2034 respectively, primarily from would-be international passengers coming to the U.S. This translates to over 9,000 jobs in 2016 and over 58,000 jobs in 2034 just by unmet demand at EWR.[88]

Though multiple proposals have been put forward for additional capacity at EWR to address demand and congestion issues, no expansion plans are being considered and funding sources have not been identified.

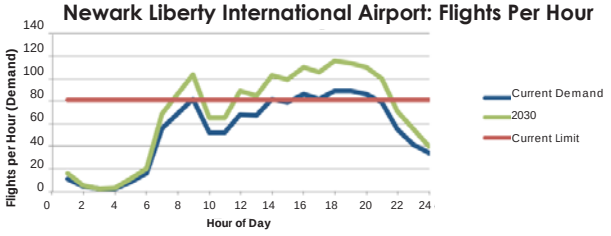

Figure 8: Newark Liberty International Airport - Flights per Hour[82]

CASE STUDY 3: LOS ANGELES INTERNATIONAL AIRPORT (LAX)

LOS ANGELES, CALIFORNIA

Los Angeles International Airport (LAX) is the largest hub for passengers on the west coast of the United States. The airport is located 16 miles to the west of downtown Los Angeles, and it handled 62.6 million passengers in 2012, including more than 16 million international passengers.[89]

LAX has experienced relatively stable passenger levels through the recession in 2008, shown in Figure 9, and has experienced growth in domestic and international passenger levels each year since then Although the number of overall passengers at LAX has been increasing for the past four years, the number of aircraft movements at LAX has declined for the past decade.[91] Traffic peaked at the airport in 2000, with over 780,000 aircraft movements that year.[92] After declining to under 550,000 in 2009, aircraft traffic has rebounded significantly, with over 605,000 movements in 2012. Passenger volumes remain high due to increased plane sizes and load factors on aircraft.

As a large hub, LAX serves a significant proportion of connecting passengers. In 2011, 38 percent of LAX passengers were connecting.[93]

Los Angeles International Airport

Twenty-two percent of connecting passengers who began their trip in California in 2006 were destined to other California cities, down from 36 percent in 2001.[94] This suggests that LAX is becoming increasingly focused on longer distance flights, a trend that coincides with a national trend among large airports towards longer distance flights. LAX is not dominated by a single primary air carrier like many other large commercial service hub airports in the United States. The largest carriers of aircraft operations at LAX are United Airlines (18.7 percent of passengers in 2012), American Airlines (18.5 percent), Southwest Airlines (15.9 percent), and SkyWest (9.8 percent).[95] Though the share of air carriers at LAX has remained relatively equal, changes appear to be on the horizon.

In March 2013, Delta announced plans to expand their presence and

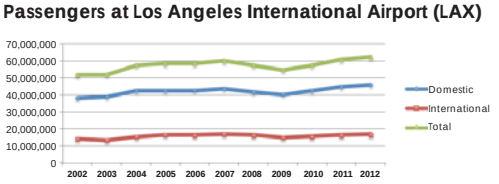

Figure 9: Passengers at Los Angeles International Airport (LAX)[90]

offer new routes at LAX, followed by American's similar announcement to expand at LAX in April.[96] In addition to existing competition over airline presence at the airport, the fate of the American/US Airways merger could also affect American's share at LAX.

Current Capacity

LAX is not under slot-controlled regulations by the FAA and instead employs a traditional "first-come, first serve" procedure for individual aircraft and airlines to access gates and terminals. From an airside capacity standpoint the airport works well as a hub, allowing flexibility for airline carriers who wish to schedule flights in clusters during the day as opposed to evenly scheduling them throughout the day and week. Four parallel runways serve aircraft at LAX, with two located on either side of the main terminals in a modern, efficient layout. LAX's current runway has the potential to move up to 160 aircraft operations/hour.[97] The FAA FACT two identified LAX needing of additional airport capacity by 2025, suggesting a runway capacity problem in the future but not immediately.

The primary capacity constraints at LAX have to do with landside capacity and airport access. The present terminal and ground access infrastructure at LAX was constructed in 1961, with three additional terminals added to the complex in the 1980s, bringing the total to nine.[98] LAX has updated some of its terminals, including the Tom Bradley International Terminal, and is adding capacity to handle the largest aircraft in service at other terminals. Though investment in updating some of the terminals has helped the passenger experience, the airport is problematic when it comes to terminal condition and airport access. While some terminals are connected via walkway or airside shuttle, to transfer between some terminals a passenger must exit the terminal, ride a shuttle bus, and re-clear security. Getting to rental car facilities, which are off-airport, is slow and unpredictable. Access to the airport is primarily achieved by using I-405, one of the most congested stretches of highway in the nation.[99]

Transit access to LAX terminals is limited to regional and local bus services and shuttle buses (on congested airport access roads) to the "Aviation" light rail station 2.5 miles away. This results in transit access to the airport accounting for only 1 percent of air passengers.[100] In general passengers traveling through LAX are often confronted with undesirable conditions, leading LAX to consistently be rated as one of the worst airports in the country.[101]

Ground access to the airport at LAX is the most significant chokehold in the airport's system, and according to Los Angeles World Airports (LAWA) airport access infrastructure was projected to hit complete gridlock at 78.9 million annual passengers without improvements to the system.[102] While 78.9 million annual passengers is a precise number, it is accurate enough to mean that adding about 15 million annual passengers above the 62.6 million in 2012 will be too much for the access and gate infrastructure to handle.

In an attempt to mitigate the traffic issues, LAX is legally restricted to 153 gates to ensure that the airport does not surpass its 78.9 million annual passenger threshold. Since the implementation of the law, LAX has been targeting funds towards improving the traffic congestion problems.[103] Under current growth rates, LAWA expects the airport to reach its maximum capacity around 2022.[104] The gate cap will likely expire by that time, but the airport will need to implement its current plans to improve the ground access problems. According to LAWA projections, passenger demand beyond the capacity threshold will continue to grow at more than two million passengers per year. After 2022, the airport and the region could be losing millions on potential passengers annually, which would have a direct impact on the economy in the region and the national economy.

Future Capacity

In response to projected demand, LAWA is in the midst of a $4.8 billion capital improvement program to improve capacity and efficiency at LAX. The majority of the program's funding is dedicated to terminal improvements, including the recently-completed reconstruction of the Tom Bradley International Terminal, but other initiatives are focusing on improving ground access infrastructure to the airport to improve the airport's overall capacity.[105]

The program also includes airside improvements, including the relocation of the northern-most runway and the construction of an additional lane for larger jet aircraft. However, not all terminals are addressed in this improvement program, and the fundamental problems that plague LAX, including inefficient design, ground transportation access, and terminal crowding will likely continue to pose challenges to the airport in the future without greater overall investment.

CASE STUDY 4: SAN FRANCISCO INTERNATIONAL AIRPORT (SFO)

SAN FRANCISCO, CALIFORNIA

San Francisco International Airport (SFO), located 13 miles south of downtown San Francisco, is the largest airport in the Bay Area and a major hub for air travel on the west coast of the United States. In 2012, SFO moved over 42.6 million passengers, of which 21 percent were international passengers.[106] SFO's passenger growth was not interrupted during the recession, shown in Figure 10, and is expected to continue to grow faster than any other airport in the region.[107]

In tandem with SFO's passenger growth, the number of aircraft movements has also increased over the last six years.[109] Aircraft operations have increased from 379,500 in 2007 to 403,564 in 2012.[110] However, in the Bay Area region, total aircraft operations out of all the region's airports decreased by 21 percent.[111] This demonstrates a greater concentration of traffic at SFO, as well as an increase in larger planes with higher load factors serving the airport.

SFO's largest carrier is United Airlines, accounting for around 49.5 percent of the airport's traffic.[112] Other airlines servicing a substantial market share at SFO include Delta (9 percent), American (8 percent), Southwest (9.14 percent), and Virgin America (7 percent).[113] Nearby airports in Oakland and San Jose have attempted to gather some of the regional traffic, particularly from low cost carriers, but have not experienced the same growth as SFO, consistent with the trend toward consolidation at larger hub airports.[114] The San Francisco Airport Commission has cited the passenger growth to "service increases by United Airlines and Virgin America" as well as "new and increased foreign flag carriers to Europe and Asia."[115]

Current Capacity

SFO operates two intersecting sets of two parallel runways, spaced relatively close together. The small separation between the parallel runways is a result of an airfield that has experienced only minor updating since the initial construction in the 1950s.[116] SFO is "ranked as one of the most delay-prone airports in the country" and "the chief cause of these delays is bad weather when foggy morning and seasonal storms limit SFO to one runway for arriving aircraft." [117]

As a result of the runway geometry and weather patterns of the Bay Area, SFO operations are severely limited during inclement weather, more so than other large international airports in the United States. Under optimal weather, FAA Visual Flight Rules allow SFO to operate at up to 100 flights per hour. [118] Inclement weather, however, restricts SFO to only 61 operations per hour under FAA Instrument Flight Rules that do not al-

San Francisco International Airport

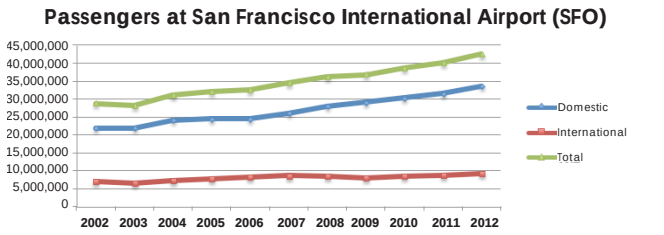

Figure 10: Passengers at San Francisco International Airport (SFO)[108]

low side-by-side approaches with the current runway layout. [119] Demand at SFO has historically exceeded 70 operations per hour at a few times during the day and by 2035 it is projected to reach over 100 operations per hour at peak times. While the airport can currently handle peak demand levels during good weather conditions, delays occur during inclement weather when the airport cannot meet current demand at peak times.[120] As demand grows, small disruptions from weather or other events will create greater problems for travelers.

Other incidents and concerns regarding safety have also called into question SFO's design. On July 6, 2013, Asiana Flight 214 crashed during landing on SFO Runway 28L.[121] While the incident does not appear to be directly caused by the runway design, the FAA responded to the crash by issuing a temporary rule stating that international carriers would not be allowed to land side-by-side at SFO regardless of weather conditions.[122] This temporary regulation decreased airside capacity for international carriers at SFO, and while it was subsequently lifted, it demonstrates the potential instability of the airport's capacity.

Future Capacity

SFO has long experienced capacity challenges related to weather, which are projected to remain and intensify as passenger demand increases in the future. In 2010, the Bay Area Metropolitan Transportation Commission (MTC) led a study that included input from the FAA, regional airports, and other regional planning organizations to examine future airport capacity in the Bay Area. The study was completed in 2011, and estimated that by 2035 the Bay Area will move 101.3 million annual passengers, a 67 percent increase from 2011.[123] The report investigated ways to mitigate delay at SFO, including shifting passengers to less congested airports, using high-speed rail, and managing demand.

These options have their limitations, as shifting traffic would be contrary to the hub and spoke network trends and alternatives have minor effects: high-speed rail was projected to reduce passenger traffic at SFO by only 3.7 percent.[124] Demand management showed more promise, but would require setting restrictions on plane sizes and using buses for shorter routes, both of which are politically challenging. The MTC report does not discuss the option of expanding the airfield by providing more space between runways or adding additional runways due to the "large expense" such a project would incur.[125] SFO's location, surrounded by the San Francisco Bay, has been a barrier that continues to challenge physical expansions of the airport's footprint, particularly of runways. As a result, the majority of alternatives to reduce congestion at SFO have focused on the use of improved air traffic and demand technologies, and increased reliance on other airports.[126]

NextGen air traffic control might be able to help planes land safely with tighter spacing, but runway improvements are likely to have the largest impact in accommodating current and future demand as well as improving the sensitivity of SFO to inclement weather. No capacity improvement projects that will add more runways or reconfigure the existing runways are currently planned.

RESEARCH SUMMARY

Due in part to the recent airline consolidations and the hub-and-spoke nature of the system, the landscape of airport capacity is shifting. Small and medium hub airports are experiencing a decrease in traffic, while capacity at large hub airports is becoming increasingly strained.

Unaddressed capacity problems at these airports have real and direct impacts on the national economy. Unmet demand at JFK and EWR alone is projected to result in $6 billion, $24 billion, and $48 billion in lost spending from travelers in 2016, 2024, and 2034 respectively, primarily from international tourists visiting the U.S. This corresponds to 42,000 jobs in 2016 and over 270,000 jobs by 2034.[127] While some of the unmet demand at New York could be re-routed to other international gateway airports in the eastern United States, increased concentration of hubs and surging demand for international travel to New York City makes this unlikely. And while SFO and LAX have capacity for growth, LAX is projected to meet its capacity limit by 2022, and poor weather at SFO will create greater delays as passengers volumes grow.

The case study analyses demonstrate that addressing capacity problems at some of our largest hub airports will be challenging. JFK, EWR, and SFO all face substantial barriers to airside and airspace capacity expansion. And while LAX has sufficient runway capacity, it has serious landside capacity issues. Funding, physical space, and other political challenges have left these airports with few plans to develop needed capacity and improvements, and it is unclear which investments will have the greatest benefits to the national system.

However, if we take an appropriate perspective in focusing on national benefits from targeted investments, solutions exist that can relieve congestion at these airports and in the larger aviation system.

John F. Kennedy International Airport

POTENTIAL CAPACITY SOLUTIONS

Demand for air travel is growing, and existing capacity at a few of the largest hub airports will not be able to accommodate it. But real, feasible solutions exist to address these aviation capacity problems from a national perspective. Addressing these issues from a national perspective means focusing policies on areas that create the greatest national economic benefits. Current aviation policy does not necessarily approach aviation system capacity in this manner, thus all of these solutions represent a significant break from existing policy.

While none of the solutions are easy to implement, they are all plausible. This section analyzes potential solutions, including operational changes, NextGen air traffic control program, and the expansion of airport infrastructure.

Operational Changes

Capacity improvements do not always require expensive and politically challenging infrastructure expansions, especially if they are targeted towards the areas of greatest need. One potentially cost-effective ways to improve our transportation network is to use what we already have more effectively. There are two methods that are typically used to reduce airside airport congestion: the "regulatory" approach and the "market-based" approach. In a "regulatory" approach, runway or gate access is restricted by slot controls or other regulations. With a "market-based" approach runways or gates are priced according to specific demand factors such as time of day. The following two sections explore these concepts.

Regulatory Approach

The regulatory approach has been used in the U.S. to varying degrees, with limited success. Slot controls were implemented in 1969 when the FAA designated JFK, LaGuardia, Newark, Chicago O'Hare International Airport (ORD), and Regan National Airport (DCA) as high-density airports.

In implementing what became known as the High Density Rule, FAA indicated that slot controls were needed to provide relief from excessive delays at these airports.[128] However, these airports, particularly in New York and Chicago, continued to experience substantial delays despite slot controls.[129] Slot controls at Chicago O'Hare expired in 2002, but congestion and high traffic continued after slot control was dismantled [before any new runways were opened under the O'Hare Modernization Program (OMP)].

In 2004, the FAA implemented a flight cap at O'Hare, limiting the amount of flights that airlines could schedule during peak hours. The first runway was projected to open in late 2007 and, with the recession and the addition of more runways, the cap was lifted in late 2008 and congestion has since abated. Slot controls continue in various forms at the other airports, but due to their ineffectiveness at some of the most congested airports in the country, it is unlikely they will be effective elsewhere.

Slot controls are ineffective primarily due to their blunt nature in controlling, not eliminating, congestion.[130] They do not account for potential airspace delays in a region, revealed to be a serious concern through the case of New York's three major airports. They leave substantial residual congestion because they are implemented based on optimal weather conditions and they provide no incentive for efficient use of scarce airspace. Not surprisingly, discussions about slots at Washington National, in particular, tend to get caught up in the political machinations of Congress. This results in a less than optimal and demonstrably ineffective method of managing congestion.

Pricing Approach

Most landing fees for runways at major airports in the U.S. are priced based on aircraft weight. While this makes some sense in terms of the cost to maintain the runway, in congested conditions the fact that small aircraft pay substantially less than large aircraft creates the wrong incentives for efficient use of limited

Most landing fees for runways at major airports in the U.S. are priced based on aircraft weight. While this makes some sense in terms of the cost to maintain the runway, in congested conditions the fact that small aircraft pay substantially less than large aircraft creates the wrong incentives for efficient use of limited capacity.

capacity. When it comes to issues of landing capacity, a small aircraft and a large aircraft take roughly the same amount of time to land.[131] Therefore, the weight of an aircraft has very little to do with the congestion the aircraft causes. In fact, larger aircraft are far more efficient from this perspective since they bring more people onto the airport runway for the same amount of delay time.

However, changing pricing schemes at airports is incredibly challenging, and attempts to do so have met substantial political and legal impediments. Two congested airports in the U.S. – Boston Logan International Airport (BOS) and LaGuardia – have tried, and failed, to implement effective versions of peak pricing in the past.[132] Such schemes typically face substantial opposition from both general aviation aircraft and smaller regional carriers that do not want to be priced out of the runways at peak travel times. Other opposition has come from communities served by smaller regional carriers who depend on hub-and-spoke service at peak times in order to access the larger hubs in the aviation network. Thus, while peak pricing schemes could be implemented at some airports to help increase capacity by encouraging larger aircraft during peak times, the solution would face serious legal impediments and institutional challenges.

Operational Solutions

Implementing operational changes,

While Los Angeles International Airport (LAX) has the runway capacity to handle traffic growth over the medium term, the airport is long overdue for a redesign of its terminals and access infrastructure.

either regulatory or market-based, can be daunting, in large part because of a lack of federal support. There is a clear national economic interest in reducing congestion at major airports illustrated by reasons enumerated in this paper. But the federal government provides little support for airports that wish to tackle congestion in an innovative way and potentially reduce congestion in the national system. Instead, funding for airport improvements is provided in a highly politicized manner with little regard for return on investment from the perspective of national benefits. In order to break the logjam on operational changes and develop creative solutions, the federal government needs to assist states and airport authorities in overcoming the political obstacles to implementing such changes.

One solution would be to create a discretionary grant program for airport congestion. For a relatively modest sum of money, airports with capacity problems that discourage or impede travel demand could be encouraged to try new innovations that would otherwise face substantial political challenges. For example, if JFK were to try and use peak pricing on its runways, it would undoubtedly face serious opposition. But if they applied for a federal grant to do so, and could only receive funding after the implementation their proposed scheme, they would have more incentive to succeed.

This concept has been used in the past and is exemplified through the USDOT Urban Partnership Agreements (UPA), a program that allowed selected metropolitan regions to receive priority consideration for federal discretionary funds if they were able to successfully implement proposed congestion pricing schemes on their roadways.[133]

A similar program carefully targeted towards airport congestion – and the national benefits derived from reducing that congestion - could potentially bring about substantial innovation while serving a clear national purpose. While the federal government could remain agnostic about the specific solutions embraced by the airport – regulatory, pricing, or other – they could simply measure the results in terms of national benefits. If the results, specifically congestion reduction, were positive, a reward of additional funding could be provided to the grantee.

Air Traffic Control Improvements

NextGen, a nationwide state-of-the-art modernization program for air traffic control, promises to replace the existing radar-based system used by the aviation industry with a system that uses satellite based GPS. Since GPS can provide more precise location information, NextGen can allow for substantial benefits in terms of fuel costs and capacity improvements. NextGen has been a long-time project of the FAA but has moved very slowly.[134]

While there have been some funding problems for the program, the primary obstacles to implementation stem from FAA's leadership problems and resistance from existing stakeholders. Further, FAA has an inherent internal conflict due to its role as both the federal safety regulatory agency and federal air traffic control operator. This dual function has made it very challenging for FAA to move forward with NextGen in a manner that is responsive to private sector concerns.

The private sector, particularly airlines and aircraft manufacturers,

need some level of certainty regarding the benefits of NextGen before they would be willing to invest in new technologies for aircraft. They must have some confidence that FAA will select and move forward with a given technology before they upgrade their aircraft. But because FAA is a large and slow-moving bureaucracy that also happens to be a safety regulatory agency, they are not nimble enough to provide this confidence.

Existing stakeholders also present obstacles to NextGen implementation. Some stakeholders, such as the airlines, stand to gain from NextGen in the form of reduced delays and fuel consumption. However, the airlines have very small profit margins and are understandably reluctant to invest both their own funds and any funds derived from taxes on their passengers. But airlines are more open to this prospect than General Aviation and Business Aviation, who would reap relatively limited benefits from NextGen. These aircraft typically fly into the least congested airports, resulting in little potential gain for them with the implementation of NextGen.

NextGen Improvements

NextGen is unlikely to move forward at a rapid pace without both strong leadership and major institutional changes. The U.S. may consider joining Canada and the U.K. in separating their safety-regulatory arm from their air traffic control arm. This could potentially involve privatization, as has happened in Canada and the United Kingdom, but this is not an essential component. The key is to separate the two functions, which could provide an environment for accelerated NextGen implementation as well as other improvements.[135]

Improvements at airports will have national and international implications due to the interconnectivity of our aviation system and the increased reliance on large aviation hubs.

This idea gained some traction during the 1990s, and almost became a reality, but was ultimately blocked by the air traffic controllers. But a new era has dawned wherein government budget cuts, sequesters, and shutdowns have made life for air traffic controllers under FAA much less desirable.

Resultantly, there is some evidence that the FAA is more willing to contemplate such a structural change. Also, the lack of progress on NextGen has convinced much of the aviation community that the existing structure is not working. There may now be an opportunity to move forward with this large-scale change and accelerate NextGen.

Regardless of whether such institutional changes take place, NextGen needs stronger leadership, particularly at the federal level from the Executive Branch. Without Presidential intervention, NextGen will likely not become a high enough priority to move forward more rapidly.

Airport Infrastructure Improvements

At some major airports, even with operational improvements and NextGen implementation, there will not be sufficient capacity to accommodate demand. The four case studies presented in this report represent only a sampling of the U.S. airports that will need direct investment in landside or airside capacity in order to accommodate future growth and reduce delays.

Most of these airports are major hubs that handle traffic nationwide, and the biggest hubs are only increasing in importance due to industry consolidation. Thus there is a clear national interest in investing in these airports to increase capacity in the national system.

JFK, EWR, and SFO all will require modifications to their existing runways that allow for more aircraft operations. The New York airports in particular face the greatest challenge with the most significant implication for the U.S. economy. Due to the natural and manmade barriers surrounding these airports, this is a particularly challenging task and is not an issue of funding alone. Even if these airports had sufficient funds to construct such expansions, the environmental barriers and community opposition would be strong. However, committing sufficient funds to upgrade these airports would be an important first step.

While LAX has the runway capacity to handle traffic growth over the medium term, the airport is long overdue for a redesign of its terminals and access infrastructure. Traffic on the airport access road creates havoc for drivers attempting to access the airport, and there is currently no alternative access method. This congested, and sometimes dangerous, situation may serve as a substantial impediment to increased international travel, as many passengers arriving at LAX from overseas have a first experience in the U.S. that is frustrating and challenging. This congestion, combined with an outdated terminal layout and poorly organized rental car operation, make travel through LAX less than ideal. However, without substantial funding for upgrade and redesign, this is unlikely to be resolved.

Such challenges are not unique to these four airports, but their cases illustrate the magnitude of problems at the largest international airports in the country. Improvements at these airports will have national and international implications due to the interconnectivity of our aviation system and the increased reliance on large aviation hubs.

Airport Infrastructure Solutions

Improvement to aviation infrastructure will require significant resources and strong leadership. Convincing local taxpayers to fund such expansions typically proves challenging, especially because the benefits of delay reduction are spread around the country. Improvements to the policy structure that enable additional funds and empower local leaders to implement extensive improvement programs will likely be necessary. Two potential areas for improvement are the federal Airport Improvement Program (AIP) and the Passenger Facility Charge (PFC) limits.

Airport Improvement Program

The federal AIP is a grant program administered by the FAA that provides funding to public entities to help facilitate planning and development at public-use airports.[136] The program distributes about $3.5 billion annually, with 65 to 80 percent of the funds allocated through the AIP each year, obligated via a set of formulas. After the formula obligation, the remaining funding is allocated on a discretionary, non-competitive basis. This allocation methodology has effectively created a barrier to improvement by resulting in a highly political distribution of available funds that is misaligned with national goals.

The FAA defines primary airports as having more than 10,000 passenger boardings each year.[137] Figure 11 below shows the share of airport passenger enplanements at primary airports versus non-primary airports. While Figure 11 demonstrates that only 0.25 percent of enplanements occur at non-primary airports, Figure 12 shows that 35 percent of AIP Grants are obligated to non-primary airports.

This is a clear misallocation of resources, given that the federal interest in the nation's aviation system should be in making investments with the greatest national benefits. It is highly unlikely that these non-primary airports, which are receiving approximately $1.35 billion annually while carrying only 1.8 million annual passengers, are the best investment of scarce resources.

Even within the primary airport category, there is room for improvement with respect to how investment decisions are made. AIP grants are made with little regard to national investment priorities within this category. There will always be political challenges that require federal funding to be distributed nation-wide, rather than allocated with maximum efficiency to a few locations. But the AIP program distributes funding based on required set asides and formulas, not based on competitive application, meaning under the current system the FAA cannot target significant amounts AIP funds to the most congested airports in the network.[140]

Passenger Facility Charges

The federal government also restricts how much revenue airports can raise on their own.[141] Congress caps the PFC, which airports assess on passengers and that does not flow to the federal government at all, at $4.50. Many existing stakeholders, including the airlines, are resistant to attempt to remove or increase this cap. Many large airports have even expressed a willingness to give up their limited AIP funds in exchange for the right to raise additional revenues from PFCs, but this idea has not yet gained any legislative traction.

As Table 7 indicates, PFCs account for only 11 percent of revenues at large hub airports. However, they are one of the few mechanisms available to these airports to raise additional funds. The challenges with increasing landing fees or terminal rental fees, which are assessed directly on airlines, are well known. Airlines operate on razor-thin profit margins and have the power to resist such price increases, especially when one airline controls a majority of airport traffic,

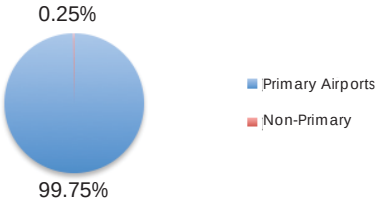

Figure 11: : Airport Passengers in CY 2011[138]

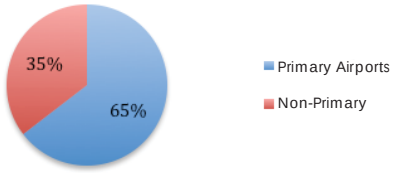

Figure 12: AIP Grants from 2009-2011[139]

as they do at most major hubs. This leaves parking and PFCs as the biggest sources of revenue for airports. Without the flexibility to increase PFCs, airports are left with parking as the only revenue source they can control. This makes capital improvement plans challenging and delays infrastructure investment.

Resistance to increasing PFCs remains strong. While it is not a federal tax, it can be perceived as such by members of Congress because of the federal government's authority to cap it. Legislators are often reluctant to vote for anything that might appear to be a tax increase, even when it clearly is not one. Also, they lack further incentive to expend political capital on this issue, as they would not enjoy the political benefit of being able to spend this money.

More importantly, existing stakeholders in the industry are resistant to an increase. The airlines see PFCs as something that would hurt demand because it would increase the cost of travel. Airlines operate on thin profit margins and already believe they are overtaxed. While they might like to see infrastructure improvements at airports, they would much rather the cost be borne by existing taxes or by people parking at the airport. Business and General Aviation is similarly opposed because the PFC increases their cost of doing business. The PFC cap increase, while plausible, will not be easily achieved without a strong advocacy effort and leadership on Capitol Hill.

Large Hub Airports, 4-Year Average 2008-2012		
Landing Fees	$3,093,698,745	14%
Terminal Rental	$3,878,526,161	17%
Cargo and Hanger Fees	$592,492,261	3%
Fuel Sales	$322,942,892	1%
Other	$1,090,793,569	5%
Total Aviation Fees	**$8,978,453,627**	**40%**
Facility Leases	$540,888,948	2%
Terminal Concessions	$1,444,631,673	7%
Rental Cars	$1,444,018,890	7%
Parking	$3,012,522,502	14%
Other	$839,432,569	4%
Total Non-Aviation Fees	**$7,281,494,581**	**33%**
Interest	$409,389,793	2%
Grants	$2,784,592,379	13%
PFC Revenue	$2,537,062,716	11%
Other	$184,967,937	1%
Total Capital Grants and PFCs	$5,916,012,824	27%
Grand Total	**$14,846,364,800**	**100%**

Table 7: Capital and Operating Revenues by Source, U.S. Large Hub Airports, Average from 2008-2012[142]

The airlines see PFCs as something that would hurt demand because it would increase the cost of travel. Airlines operate on thin profit margins and already believe they are overtaxed.

CONCLUSIONS & POLICY RECOMMENDATIONS

Conclusions: Stakeholder Limitations

Without substantial infrastructure and policy improvements over the next decade, the U.S. aviation system will not meet global travel demand due to capacity constraints. Unfortunately, most existing aviation stakeholders have little incentive or ability to make these improvements on their own, and federal policy is currently more oriented towards accommodating existing stakeholders than advancing national interests. Some of these stakeholders and their motivations are examined below:

Airlines

The airline industry is highly competitive and operates on very thin profit margins. This ultra-competitive atmosphere serves consumers in that it keeps fares down. However, this also means that the industry's bottom line is more dependent on cutting costs than on accommodating demand for growing passengers. As a result, airlines are focused on policies that will result in lower costs for the industry, such as reducing the taxes and fees assessed on fuel and tickets. Airlines for America, a trade group, frequently cites federal taxes and fees, currently at about 20 percent of a ticket price, as an undue burden.[143] Attempts to increase fees or taxes on the airlines or passengers will almost certainly be met with resistance. While they would not object to more capacity investment, they have no incentive make those investments.

The airline industry is highly competitive and operates on very thin profit margins. This ultra-competitive atmosphere serves consumers in that it keeps fares down.

General and Business Aviation

The General Aviation (GA) community does not typically see capacity constraint as a major issue. GA pilots tend to fly into smaller, less congested airports. Business aviation specifically serves markets that are underserved by major carriers and do not face congestion. Meanwhile, these constituencies are very sensitive to potential increases in cost. Unlike larger aircraft where costs can be spread amongst a larger number of passengers, GA and business aircraft tend to carry fewer passengers. This usually makes any cost increase more onerous for them than for the airlines.

Airports

Large airports have a strong interest in increasing capacity when it is needed. However, large airports represent a small fraction of the airport community, and many airports have seen declines in traffic volumes as airlines have consolidated at fewer large hubs. Representation of airports within trade associations does not always correspond directly with the number of passengers served. Moreover, public sector entities typically own the largest airports. While these entities are concerned with congestion, and want to reduce congestion, doing so is not essential to their bottom line. They do not need to grow their capacity or revenues to satisfy investors, for example. They also are not well financed enough to out-lobby the airlines and GA communities. Therefore they typically do not have the political strength or capability to

The Federal Aviation Administration has a strong interest in reducing constraints on the airspace system.

push for controversial and challenging expansion initiatives.

Federal Government

The FAA has a strong interest in reducing constraints on the airspace system. Unfortunately, the FAA has consistently demonstrated an inability to accomplish this goal. NextGen has been delayed over many years and many stakeholders are losing confidence in FAA's ability to move forward with the program. Meanwhile, airport capacity investments are not made on the basis of national interest. Overall, FAA is not in a position to seriously address capacity issues without substantial assistance from Congress and the private sector.

Policy Recommendations

Given the outlined stakeholder limitations and the very real national need to address capacity constraints in the U.S. aviation system, a large effort by non-stakeholders will likely be necessary to address this problem from a national perspective. Change will only occur when the larger business community comes together to call for substantive policy changes addressing how we operate and fund our aviation infrastructure. Assuming such a group could come together, we recommend they strongly encourage Congress to make the following policy recommendations:

Restructure the AIP to Target Investment to the Greatest National Interest

The AIP is a program established and managed by the FAA that delivers funding to airports around the country for infrastructure improvements. However, the way that AIP funding is allocated bears little relationship to return on investments or national goals. Reforming this program to target funding to where it provides the greatest national benefit would go a long way towards making adequate funding available to support necessary upgrades in our aviation infrastructure. Our analysis indicates that a substantial amount of this funding – if allocated on the basis of national need – should go to the New York airports. This may change in future years as improvements are made and capacity constraints shift to other parts of the system.

This might seem like an obvious reform but it will face substantial political obstacles. The AIP program is structured to spread funding effectively over a large enough swath of the country in order to ensure consistent political support, and is weighted toward smaller airport that typically have less ability to raise significant amounts of capital.

Redirecting funding toward the largest airports, where it is most needed, will not be a popular idea in Congress. Nonetheless, the idea of injecting some accountability into the AIP program for national benefits should appeal to any member of Congress concerned about government waste or the federal budget deficit. It is worth exploring whether there are ways to improve the AIP program allocations without dismantling the political coalition that keeps it in place.

Create a New Federal Discretionary Grant Program to Address Airport Operations

The concept of a new discretionary grant program to support innovative transportation investments is well known in the surface transportation world. The oldest of these programs is the federal transit "New Starts" program, which supports new investments in rail transit. Applicants from across the country compete for a limited amount of funds to support their proposed investment. They must make the case for their investment based on the benefits it provides per federal dollar. Similar programs for federal highway and transit investment have since been implemented to support congestion pricing (Urban Partnership Agreements under the Bush Administration) and general infrastructure innovations (TIGER Program under the Obama Administration).

These discretionary programs have demonstrated success using federal dollars to leverage local investment in innovative transportation projects that would have otherwise faced political and funding obstacles too great to overcome. In aviation, this new discretionary program would be targeted more towards the political obstacles than the funding obstacles, and more towards operations than infrastructure. Airports and other entities wishing to relieve congestion in the national aviation system could apply for grants from the FAA. By creating competition with ideas around the country for relieving congestion and creating national economic benefits, this program could foster innovative ideas such as peak runway pricing or other operational changes. But it could also be used to support, for example, new bus or train operations that would demonstrably reduce capacity constraints at airports. It is exactly these kinds of innovations that have the potential to take hold under such a program.

This program would not have to be based on a particularly large amount of money. Even a few hundred million dollars could be sufficient to generate interest. The money for the program could be carved out of the AIP program, though it actually might be politically simpler to allocate general funds for this purpose given the wide variety of potential applicants. While it is never easy to create a new program from scratch, especially with the legal and regulatory barriers that might make creating such a program challenging, this is one that could have a substantial financial return.

There are many possible routes to go with regard to separating air traffic control and safety functions. The simplest way is to create two separate government agencies: Federal Aviation Administration and U.S. Air Traffic Control.

Explore the Idea of Separating the Air Traffic Control and Safety Functions of FAA

This idea is not a new one, and was pushed by both the Clinton and Bush Administrations without success. A new era has dawned in aviation where most stakeholders are fed up with FAA and the slow implementation of NextGen. Even air traffic controllers, who work for FAA, are beginning to see the value in potentially separating from their parent organization.

There are many possible routes to go with regard to separating air traffic control and safety functions. The simplest way is to create two separate government agencies: FAA and US-ATC (U.S. Air Traffic Control). This would likely be the simplest method of separating the two functions, though it might not resolve all of the current challenges, since the federal government would still control both entities. The next step would be to corporatize the new entity into a nonprofit instead of a government agency. This would allow the new air traffic control agency to behave more like a business with respect to investment decisions, particularly related to NextGen, and give the ability to provide operators with more certainty about technological advances. Canada operates their system with a nonprofit called NavCanada, and has experienced some substantial benefits from this arrangement.

More research is needed to investigate the possible approaches and recommend the one that might work best in the U.S., but any such change will require sustained political leadership to be achieved. This means convincing Congress and the Administration of the value of moving forward in this manner even before such details are ironed out.

Relax Restrictions on the Airport PFC

The idea of increasing the cap on the PFC remains one of the top goals of the largest airports in the United States. Airports see the PFC cap as a substantial barrier to increased investment in capacity within their facilities, and they know that increasing their PFCs would bring in substantial revenue without suppressing demand.

From a policy perspective, it is understandable why the federal government might want to regulate how much airports can charge passengers. The federal government has an appropriate role in facilitating interstate commerce, and if one strategically placed airport with a monopoly on certain routes decided to start gouging consumers, this could be detrimental to interstate travel. However, that is an argument for maintaining a cap on PFC charges, not for maintaining it at the current rate of $4.50. The reason it is maintained at the current rate is that the airlines and other stakeholders do not want the cost of air travel to rise, even if it means that airport infrastructure will improve. Airlines are also sensitive to increases in PFCs, as a PFC increase for a particular airline's hub might put it at a competitive disadvantage. But there is a clear need to increase funding in order to address our aviation capacity issues and the PFC provides one of the simplest and fairest options for doing so.

At a minimum, the FAA should be given discretion to increase the PFC if and when an airport can demonstrate the need for more investments in order to accommodate demand. If there are clear national benefits to an increased PFC, Congress should allow it. It is almost a free lunch for Congress – increased investment without raising federal taxes or fees. This is a concept that should resonate strongly with those who care about increasing national aviation system capacity, which should be everyone.

The aviation system plays a fundamental role within our economy and within our transportation system, both domestically and worldwide.

Conclusions

The aviation system plays a fundamental role within our economy and within our transportation system, both domestically and worldwide. Demand for passenger travel is growing, and within our current infrastructure and operational paradigm the aviation system may not able to accommodate all of this growth. Our four case studies highlight some of the most limiting capacity issues within the network, providing a sampling of system-wide capacity challenges. While congestion and capacity constraints are concentrated at only a few airports, delays created at congested hub airports ripple through the entire system. In order to ensure that the United States' aviation system is ready for the next generation of travelers, capacity will need to be expanded.

Solutions exist, and while they are politically challenging, they have the potential to be moved forward. Stakeholder limitations may provide a distinct barrier to the aviation system's ability to adapt, but non-traditional stakeholders have the opportunity to step up to work within the system and encourage thoughtful policy changes. The United States has the ability to remain as a global competitor in aviation travel if we are successful in moving these ideas forward.

APPENDIX – AIRPORT INFORMATION

The 20 largest airports were compiled below in Table A-1 in terms of total passengers and international passengers, using data from the U.S. DOT Bureau of Transportation Statistics (BTS).[144] Of the 20 airports, 12 were selected as most relevant to this study, based on infrastructure, hub status, recent investment plans, and passenger levels for domestic and international travelers. Some airports were not selected due to their lower level of overall passengers, as was the case with Honolulu, and some do not have a large presence of a hub airline, as is the case with Orlando and Fort Lauderdale.

We evaluated each of the 12 airports using criteria that aimed to reveal characteristics of the airports' current and future capacity. The information gathered informed the selection of the four most critical airports for further review. The airports were evaluated according to the following factors:

- **Airport Location:** The location and physical footprint of the airport provides a physical context and demonstrates land constraints that an airport is currently facing or will face. Many airports are located adjacent to bodies of water, highways, or other physical constraints that may play a role in limiting capacity expansion.
- **Passenger Levels:** The annual number of passengers for each airport provides data to estimate future demand for airside and landside capacity. Passenger levels also reveal impacts of the recent economic recession on the airport and future expected capacity issues.
- **Connecting Passengers:** The annual number of connecting passengers indicates the influence and interconnectedness of the airport to other airports in the nation. Airports with larger shares of connecting passengers have a greater influence on the national air space, particularly in terms of delays and resulting impacts on other airports.
- **Largest Airline Carriers:** Airline carriers operate using one or more primary hub airport. The presence of a large airline carrier hub at a congested airport could translate into spillover delays for connecting passengers. Spillover delays are a concern for international passengers flying through an airport classified as a major international gateway in the United States.
- **Terminal/Gate Capacity:** The number of terminals and gates indicates the number of passengers the airport can process and move through the airport. Terminals and gates are needed to process passenger movements and dock planes for passenger loading and unloading. In some instances, airports may have sufficient runway capacity but not enough terminal/gate capacity for landed planes to dock.
- **Runway Capacity:** The number and characteristics of runways at an airport determines how many aircraft can safely arrive and depart the airport. Depending on the number of runways, the runway layout, runway location, and other airport characteristics, the FAA determines a maximum operation per hour level for each airport. The layout and orientation of an airport's runways also affects the airport's ability to operate departures and arrivals. Intersecting runway configurations operate significantly less flights than parallel runways, because aircraft have to yield to each other on both arrival and departure. With parallel runways aircraft can be operated simultaneously, handling significantly more aircraft operations than intersecting runways. Older runway infrastructure designs used multiple intersecting runways to accommodate the needs of wind direction, however improved aviation technology has allowed for the construction of parallel runways.
- **Recently Completed/Planned Improvements:** Each airport in the United States produces a Capital Improvement Plan every five

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	Airport	Code	Total Passengers	Int'l Passengers	% of Int'l Passengers
1	John F. Kennedy Int'l Airport	JFK	49,034,266	24,774,644	51%
2	Miami Int'l Airport	MIA	37,033,951	18,516,559	50%
3	Los Angeles Int'l Airport	LAX	62,604,533	16,541,798	26%
4	Newark Liberty Int'l Airport	EWR	33,952,143	11,145,313	33%
5	Chicago O'Hare Int'l Airport	ORD	64,222,204	10,187,557	16%
6	Hartsfield-Jackson Atlanta Int'l Airport	ATL	91,466,491	9,576,889	10%
7	San Francisco Int'l Airport	SFO	42,616,804	9,144,975	21%
8	George Bush Int'l Airport	IAH	38,020,084	8,477,922	22%
9	Washington Dulles Int'l Airport	IAD	21,610,571	6,461,788	30%
10	Dallas-Fort Worth Int'l Airport	DFW	56,033,767	5,805,920	10%
11	Honolulu Int'l Airport	HNL	18,246,166	4,364,651	24%
12	Boston Logan Int'l Airport	BOS	28,620,708	4,064,918	14%
13	Philadelphia Int'l Airport	PHL	29,179,750	3,735,700	13%
14	Orlando Int'l Airport	MCO	34,335,365	3,672,832	11%
15	Ft. Lauderdale Int'l Airport	FLL	22,745,073	3,403,248	15%
16	Detroit Metropolitan Airport	DTW	31,201,645	3,192,624	10%
17	Charlotte Douglas Int'l Airport	CLT	40,075,222	2,913,543	7%
18	Las Vegas McCarran Int'l Airport	LAS	39,547,126	2,807,978	7%
19	Phoenix Sky Harbor Int'l Airport	PHX	39,547,126	2,807,978	7%
20	Minneapolis-St. Paul Int'l Airport	MSP	31,857,466	2,177,302	7%

Table A-1: Top U.S. Gateway Airports, by Volume of International Passengers[145]

or 10 years that includes planned improvements for airside capacity and landside capacity. These plans and resultant project lists can be indicators of the airport's predicted passenger growth and ability to handle that growth.

- **Estimated Capacity Need:** Using the data regarding the airport's characteristics and existing airside and landside capacity, an inference was made regarding whether the airport needs immediate airside or landside capacity, short-term capacity (next 10 years), medium term capacity (next 20 years) or long-term capacity (30 or more years).
- **Max Slot Operations Per Hour:** A slot is the right to take off or land during a specified period of time during the day at an airport. The FAA releases slot control rules to manage congestion at specific congested airports by limiting the number of takeoffs and landings that some airlines can make per hour.

JOHN F. KENNEDY INTERNATIONAL AIRPORT (JFK)

NEW YORK, NEW YORK

Located 20 miles to the northeast of Manhattan, in Queens, New York, John F. Kennedy International Airport (JFK) is the nation's largest international aviation gateway, moving 49 million total passengers and 25 million international passengers annually (as of 2012).[146] It is one of the nation's most congested airports, and despite the recession, international passenger growth has been steadily increasing since 2003.

This growth has overtaken the amount of domestic traffic through the airport in 2012, shown in Figure A-1. Six out of the 10 most heavily traveled routes in the country are through JFK, and according to the FAA, a third of the nation's air traffic passes through the New York City region's airspace, including traffic at nearby Newark Liberty International and La Guardia International Airports.[147] JFK is a hub for three domestic airlines: JetBlue (38.5 percent of JFK's flights in 2012), Delta (28.8 percent), and American (16.5 percent).[148] In addition, 65 international carriers serve JFK.[149] Even with congestion levels high, carriers are projected to increase their presence at the airport. JetBlue's domestic airline operations are based out of JFK,[150] and the company recently opened a new terminal that includes additional gates and new international arrival facilities, indicating sustaining its presence into the near future.[151] Delta has also recently made serious investment with a recently completed $1.4 billion Terminal 4, adding nine new gates and streamlined passenger areas.[152]

Many passengers using the airport are originating or have their final destination in the area, however JFK is a hub for connecting flights for domestic and international travelers. In a 2012 passenger survey, 18.4 percent of total departing passengers were connecting through the airport.[153] Of those, 8.4 percent were connecting from a domestic flight, and 10.1 percent were connecting from an international flight.[154] This value is lower than a larger hub airport, such as Atlanta, which has nearly 70 percent connecting passengers, but the value suggests that around nine million passengers flying through JFK continue on to other locations in the U.S.

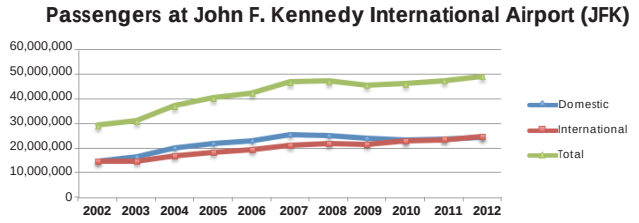

Figure A-1: Passengers at John F. Kennedy International Airport (JFK)

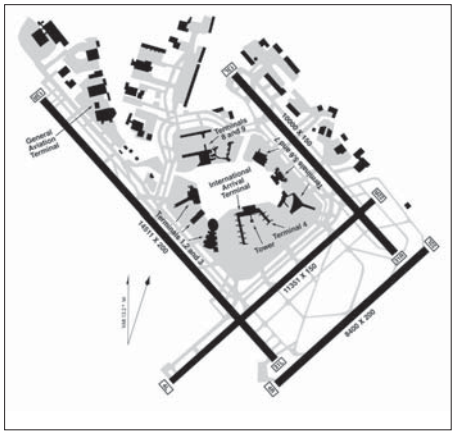

Figure A-2: John F. Kennedy International Airport Layout[158]

Current Capacity

JFK has eight terminals and 117 gates to serve its passengers. Since 2012, the airport has opened two new international terminals – Delta's Terminal 4 and JetBlue's Terminal 5 –improving of its landside infrastructure.[155] However airside capacity constraints are primarily from the intersecting four-runway design. JFK can operate a maximum of 81 flights/hour per FAA slot-control regulations. JFK is one of the four slot-controlled airports in the United States, monitored and regulated the FAA for congestion purposes (other slot controlled airports include Newark, La Guardia, and Washington National).

Departure "slots" are allocated for JFK by the FAA for specific days of the week and must be used at least 80 percent of the time for that day during a scheduling season.[156] Though FAA slot-control regulations allow JFK 82 flights/hour, demand already frequently reaches 90-100 flights/hour during several peak hours throughout the day.[157]

Taking into account the capacity of nearby EWR and LGA airports, the New York City region can currently operate 236 flights/hour. However, demand is expected to increase by 78 additional peak hour flights – close to a 33 percent increase by 2030.[159] By 2030, demand for all New York region airports is expected to increase by 50 million passengers, according to a 2011 report by the New York City RPA. The report predicts "serious capacity deficiencies [at JFK] will become even more apparent in the next ten years,"[160] with demand predicted to rise to 110-130 flights/hour throughout the day.[161] Based on current delays at JFK, a report by the FAA predicts that additional runway capacity at JFK will be required to meet demand through 2015 and beyond.[162]

Because JFK operates closely with the two other large regional airports (Newark and La Guardia) within a very small geographic area, overlapping airspace creates a "tremendous air traffic management challenge."[163] FAA rules for air traffic control cover flight rules, conditions, landing and takeoff configurations, instrument landing systems, and separation standards for the airspace. As a result of the overlapping airspace, JFK must stagger and restrict operations to separate arrivals and departures from EWR and LGA.

Many of the challenges of these overlapping airspace constraints can been addressed through the use of technologies that will modernize the air traffic control system and "disentangle the airspace conflicts among the [NYC] region's airports."[164] In the United States, these technologies are embodied in NextGen[165] which will modernize ATC and enable aircraft to fly closer together within the airspace, likely expanding capacity and realigning departure and arrival airspace routes. Other elements of NextGen still under research have the potential to further improve capacity and efficiency by using 4-D trajectories. NextGen is many years away from implementation, and even when it does bring benefits to the region it is unlikely that this will solve all the capacity problems.

JetBlue Airline opens its new Terminal 5 at John F. Kennedy International Airport.

Future Capacity

To address these aircraft and passenger demand predictions, the Port Authority and the RPA have examined several alternatives to expanding both JFK's passenger and runway capacity. The Port Authority improved one of JFK's busiest runways in early 2010 with a $376.3 improvement plan that extended JFK airport runway in 2010 that has been cited to benefit New York travelers.[166] However, the airport will need additional capacity to handle demand. A January 2011 final draft report by the RPA proposed four options to increase capacity at JFK airport, three of the options will require filling in a large section of Jamaica Bay or obtaining additional land outside the current airport land to build and extend existing runways.[167]

The fourth option proposes to reconfigure runways, potentially affecting air traffic and noise over parts of Queens. If approved, RPA suggests that the extended runway would add $150 million in wages and $707 million in economic activity to the region.[168] In line with the RPA's recommendations, the Port Authority has also suggested the expansion of operational capacity as "the best long-term approach to congestion management" at JFK.[169] Land acquisition from the Bay or the neighborhoods will be challenging, and the report does not cite a recommendation for funding the expansion. Filling part of the Jamaica Bay has received strong criticism from environmental groups, New York lawmakers, local citizens, and will likely require comprehensive study and public support to proceed.[170] To date, none of the runway construction projects have moved forward and no groups have proposed a method for funding such a project. Yet the need for additional capacity to meet demand at JFK is immediate and pressing.

NEWARK LIBERTY INTERNATIONAL AIRPORT (EWR)

NEWWARK, NEW JERSEY

As the oldest airport in the New York-New Jersey metropolitan area, demand for travel at Newark Liberty International Airport (EWR) has grown significantly since the airport began operation in 1928.[171] EWR is located 16 miles southwest of Manhattan, in New Jersey, and is a hub for both domestic and international flights, moving close to 34 million passengers in 2012, shown in Figure A-3.[172]

EWR experienced substantial growth in passengers from 2000 to 2008, and following the recession has struggled to stabilize. EWR provides a significant amount of passengers to the rest of the country due to international travelers; close to 21.3 percent of EWR passengers were connecting from an international flight.[173] Much like JFK, Newark has experienced consistent congestion-related problems as it has increased its load as a major hub and one of the largest international gateway airports.

EWR is home to 70 air carriers, with United commanding the largest portion of EWR's overall flight operations (64.8 percent of EWR flights in 2012). United will likely remain one of the largest air carriers at EWR in years to come, due to plans to invest $150 million into their terminal to create a more streamlined experience for passengers.[175] Delta (6.1 percent of flights), JetBlue (5.6 percent), and US Airways (5.4 percent) also operate at EWR.[176]

Current Capacity

EWR operates three terminals and 61 gates to handle landside capacity. On the airside, EWR currently operates three runways – two parallel and a third intersecting. Using these three intersecting runways, EWR is able to perform 81 operations/hour according to FAA slot-control regulations.[177] Similar to JFK, EWR slots are allocated for specific days and time periods. Airlines allocated slots at EWR must use these slots at least 80 percent of the time.[178]

A 2011 study by the RPA demonstrates that the airport is at or exceeding the capacity for a significant portion of the day. Like JFK, by 2030 the demand will be significantly greater than the current capacity for most of the day.

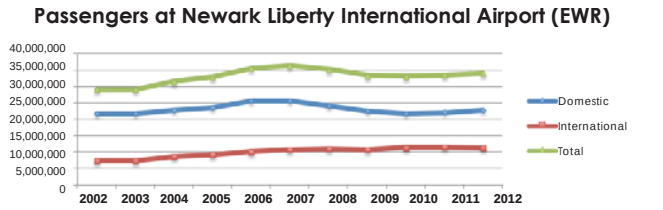

Figure A-3: Passengers at Newark Liberty International Airport (EWR)[174]

EWR has also faced significant challenges operating flights in the constricted New York City airspace. EWR has the strongest airspace conflicts with Teterboro Airport (TEB) and LGA. After implementation, NextGen will help with the conflicts, improve safety, and increase capacity. However NextGen alone will not be enough to completely resolve the demand constraints facing Newark International Airport. Delays at EWR have been cited as the worst in the country, giving the "least-loved" (according to CNN) airport award and the worst on-time departure rate of any of the top 29 U.S. airports tracked by USDOT. [179]

In 2012, almost 30 percent of flights at EWR had delays of 15 minutes or more, and only 69 percent of flights arrived on schedule.[180] The New York RPA predicts that delay will continue to deteriorate unless capacity improvements are made, as the demand for travel at EWR is predicted to grow by nearly 50 percent in the next 20 years.[181]

Future Capacity

Natural and manmade barriers to EWR, including the New Jersey Turnpike, have challenged the future growth of both airside and landside capacity at EWR. RPA addressed specific strategies for capacity expansion at EWR in a 2011 report,[182] recommending the construction of a third parallel, longer runway for additional capacity at EWR. However this would require the demolition of Terminal B and parts of Terminals A and C.[183]

Though the possibility of constructing a new, major airport outside of the New York City region to handle the region's air travel demand has been considered, the RPA report concludes that no new construction within 40 miles would be as economically efficient as expanding the region's three existing airports incrementally. Though multiple proposals have advocated for additional capacity at EWR to address demand and congestion issues, no expansion plans are being considered and no funding sources have been identified.

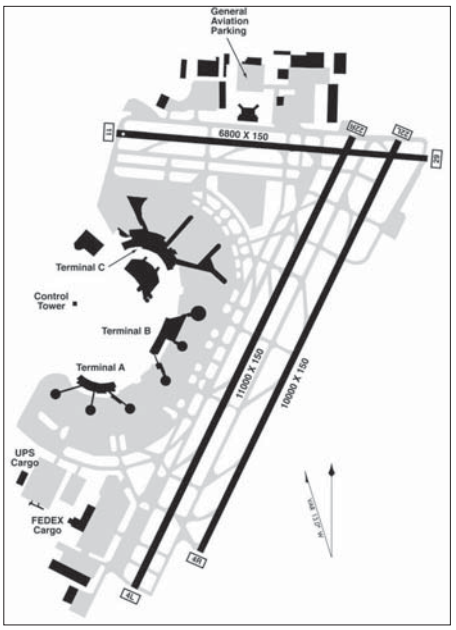

Figure A-4: Newark Liberty International Airport Layout[171]

MIAMI INTERNATIONAL AIRPORT (MIA)

MIAMI, FLORIDA

Miami International Airport (MIA) is the second largest international gateway into the United States. MIA is a crucial connecting point between the United States and Europe, Central America, and South America. In 2012, MIA carried 37 million total passengers and 18.5 million international passengers.[184]

Domestic passenger growth has been slight in the last decade, but the rapid increase in international passengers has encouraged the development of new international facilities and terminals at the airport.[185] Figure A-5 demonstrates growth in both overall and international passengers at MIA over the past decade, slowing modestly after the 2008 recession.

MIA is home to over 80 domestic and international airline carriers, dominated by American Airlines (78.5 percent of MIA flights in 2012) and Delta Airlines (11.5 percent).[187] More than 50 international carriers operate from MIA to approximately 150 destinations around the globe, and the airport recently built a large International Arrivals Facility as part of the north terminal to serve this expanding international demand for passenger traffic.[188]

Currently, MIA's four runways, shown in Figure A-6, can move up to 70 million passengers/year. However, landside capacity – three terminals and 119 gates – can only handle 50 million passengers/year, creating a gap between how many planes MIA can land and how many passenger facilities the airport has to move them. According to MIA Aviation Director José Abreu, "the airport can land [airplanes], but can't gate them," a problem that is causing issues, but could also limit growth in the future as demand continues to increase.[189] With view to MIA's future, the most recent Airport Master Plan (2010) projects a potential demand of approximately 68 million passengers in 2035, nearly double that of the 37 million passengers who moved through MIA in 2012.[190] Though the current runway structure of MIA can handle the airport's passenger projections in 2035, the current terminal and runway capacity will require expansion to accommodate the demand by that time.

To address the current capacity challenges and the gap between airside and landside capacity, MIA has been working on several renovation projects as part of their $6.4 billion Capital Improvement Program in 2011. A new North Terminal opened in Fall 2011, serving as the hub for American Airlines' South America and Caribbean flights and other international travel.[191] Improvements made by the airport have included a new runway (Runway 8L-26R), new taxiways, increased navigational aids, updates to the South Terminal, and other improvements to parking facilities.[192] MIA appears to be proactively working on expansion projects to serve current capacity constraints and address the projected growth.

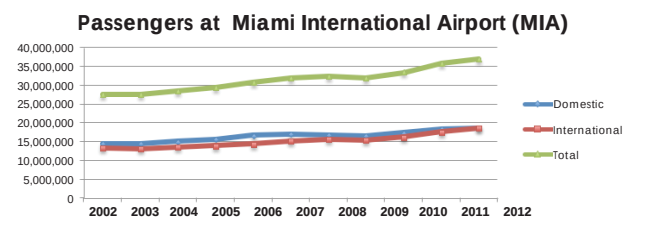

Figure A-5: Passengers at Miami International Airport (MIA)[186]

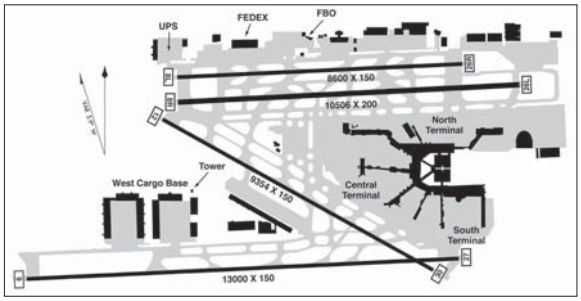

Figure A-6: Miami International Airport Layout

Miami International Airport has been working on several renovation projects as part of their $6.4 billion Capital Improvement Program in 2011.

LOS ANGELES INTERNATIONAL AIRPORT (LAX)

LOS ANGELES, CALIFORNIA

Los Angeles International Airport (LAX) is the largest hub for passengers on the west coast of the United States. The airport is located 16 miles west of downtown Los Angeles, in the neighborhood of Westchester, and serviced 62.6 million passengers in 2012, including more than 16 million international passengers.[193] LAX experienced relatively stable passenger levels through the recession in 2008, shown in Figure A-7, but has experienced growth in passenger levels annually for domestic and international travel.

In 2006, 34 percent of LAX passengers were connecting.[195] Less than one-quarter (22 percent) of connecting passengers who began their trip in California in 2006 were destined to other California cities, down from 36 percent in 2001.[196] This means that LAX is becoming increasingly focused on longer distance flights – a trend that coincides with a larger trend toward longer flights.

LAX is home to 63 airline carriers, but is not dominated by a single primary air carrier like many other large commercial service hub airports in the United States. The largest carriers of aircraft operations at LAX are United Airlines (18.7 percent of passengers in 2012), American Airlines (18.5 percent), Southwest Airlines (15.9 percent), and SkyWest (9.8 percent).[197] SkyWest, a regional carrier, operates flights for United, American, and Delta under code sharing agreements. Though the share of air carriers at LAX has remained relatively equal, changes are on the horizon.

In March 2013, Delta announced plans to expand their presence and offer new routes at LAX, followed by American's similar announcement to expand at LAX in April.[198] In addition to existing competition over airline presence at the airport, the fate of the American/US Airways merger could also have effects on American's share at LAX.

Current Capacity

LAX has comparatively adequate airside capacity. Four parallel runways serve aircraft at LAX, with two located on either side of the main terminals. As a result of the geometric configuration of the parallel runways, LAX can operate up to 160 operations/hour, one of the highest operation rates of any airport in the United States (twice that of New York's JFK airport).[199] LAX is not under slot-controlled regulations by the FAA,

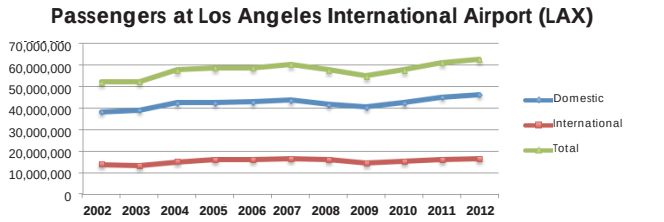

Figure A-7: Passengers at Los Angeles International Airport (LAX)[194]

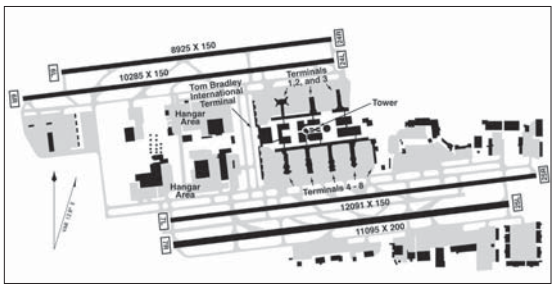

Figure A-8: Los Angeles International Airport Layout

and instead employs a traditional "first-come, first serve" procedure for individual aircraft and airlines to access gates and terminals. From an airside capacity standpoint the airport works well as a hub, allowing flexibility for airline carriers who wish to schedule flights in clusters during the day as opposed to evenly scheduling them throughout the day and week. The FAA identified that LAX needed additional airport capacity by 2025, suggesting a runway capacity problem may manifest itself. However, recently announced service increases by Delta and American could necessitate capacity improvements sooner.

In terms of landside capacity, LAX has nine passenger terminals arranged in a horseshoe layout. The present terminal and ground access infrastructure at LAX was constructed in 1961 with three additional terminals added to the complex in the 1980s.[200] LAX is updating some of its terminals, including the Tom Bradley International Terminal, adding capacity to handle the largest aircraft in service. Though investment has helped the passenger experience, the airport remains unsatisfying regarding terminal condition and airport access.

To transfer between most terminals, passengers exit the terminal, ride a shuttle bus, and then re-clear security. Passengers primarily access the airport via a congested, outdated highway.[201] Transit access to the terminals is limited to local bus services and shuttle buses to the Aviation light rail station 2.5 miles away. Transit access to the airport accounts for 1 percent of air passengers.[202]

While the airport has sufficient runway capacity to land aircraft, the dated terminals and airport access infrastructure will not allow the airport to easily handle future passenger volumes. Passengers that do travel through LAX often undergo a poor experience, which is why LAX is consistently rated as one of the worst airports in the country.[203]

Future Capacity

LAWA is responsible for managing the airport's capacity, growth, and development projects. LAWA is currently in the midst of a $4.8 billion capital improvement program to improve capacity and efficiency at LAX, under the LAX Modernization Program. The program was approved in 2011, and is composed of many different improvements.

Most of the funding is dedicated to terminal improvements, including the reconstruction of the Tom Bradley International Terminal.[204] The program does have some airside improvements, including the relocation of the northern-most runway and allowing for the construction of an additional lane that allows for larger jet aircraft. Not all terminals are addressed in this project and the fundamental problems that plague LAX, including the inefficient design, airport access, and terminal crowding, will not be fully addressed.

CHICAGO O'HARE INTERNATIONAL AIRPORT (ORD)

CHICAGO, ILLINOIS

Twenty miles from downtown Chicago, O'Hare International Airport (ORD) provides air access to the Chicago region in partnership with smaller Midway International Airport (MDW), 10 miles to the southeast of downtown Chicago. In 2011, ORD served 878,798 airline operations, second in the world behind Atlanta Hartsfield-Jackson International Airport.[205]

O'Hare is a major hub for connecting domestic and international flights - in 2009, around 14 million connecting passengers departed ORD, approximately 60 percent of total passengers.[206] However, total passenger traffic has declined in recent years. Figure A-9 demonstrates a peak in passenger traffic before the recession, and recent stabilization of passenger traffic at levels similar to that of 2003.

O'Hare offers daily flights to 198 destinations, and the largest air carriers that operate out of O'Hare include United (40.1 percent of passengers in January 2012) and American (34.4 percent).[208] United is based out of Chicago, and recently modernized its terminal at O'Hare in an effort to maintain and update their presence as a hub. However, both United and American Airlines recently eliminated over 60 daily flights at O'Hare, citing high fuel prices and delay statistics at the airport.[209]

Chicago O'Hare International Airport

ORD has four intersecting runways (Figure

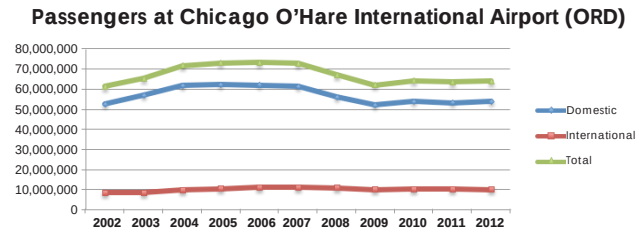

Figure A-9: Passengers at Chicago O'Hare International Airport (ORD)[207]

A-10), and in February 2013, the *Chicago Tribune* reported that O'Hare was the "most delay-plagued" airport in the nation, with less than 66 percent of flights taking off on time.[210] In response to continual problems with delay at ORD, in 2003 the Chicago Department of Aviation (CDA) developed the $8.7 billion O'Hare Modernization Program (OMP).

Since its approval in 2005, the OMP has evaluated existing airport infrastructure, runway design and length, terminal size, and other supporting technologies to modernize ORD systems to handle future capacity.[211] After the OMP's completion, the airport will have eight runways – six parallel and two that intersect.

The new runway layout is designed to "reduce flight delays and increase flight capacity well into the future," and lengthen runways so ORD can handle more large international aircraft.[212] Before the beginning of the OMP, the airport's daily capacity was 2,700 operations/day. Once the OMP is completed, the airport's daily capacity is projected to rise to 3,800 operations/day.[213]

It is projected that the additional capacity provided to ORD through OMP projects will enable the airport to handle current capacity and future growth for some time.

Figure A-10: Chicago O'Hare International Airport Layout

HARTSFIELD-JACKSON INTERNATIONAL AIRPORT (ATL)
ATLANTA, GEORGIA

The busiest airport in the world, the Hartsfield-Jackson Atlanta International Airport (ATL) is 15 miles south of downtown Atlanta, and spans 4,700 acres.[214] ATL provides service to approximately 10 million international passengers each year, and serves eight times as many domestic passengers, for a total of around 90 million. Of those 90 million total passengers, around 69 percent connect through ATL, and 31 percent are originating or ending their trip at ATL.[215]

ATL exceeds all other U.S. airports in terms of domestic connecting passengers (25 million in 2009).[216] The airport provides service to 150 U.S. destinations and 75 international destinations around the world in 50 countries. At ATL, Delta Airlines has the largest share of passenger traffic (at 79.0 percent), seconded by Southwest/AirTran (at 13.2 percent).[217] While the airport carries a substantial amount of domestic and international flights, domestic flights have the largest capacity concern.

Improving capacity, efficiency, and delay is crucial to ATL's operations. In 2007, the FAA's 2007 Capacity Needs in the National Airspace System report identified the Atlanta metropolitan area as needing additional airport capacity by 2025, even with planned capacity expansion.[218]

In response to predicted passenger demand, ATL constructed and opened a new fifth runway in 2007 that has since allowed the airport to accommodate 134 flight arrivals and 120 departures/hour in fair weather. ATL's airport layout is illustrated in Figure A-12. In inclement weather, the new runway has allowed ATL to handle 100 operations/hour – the same number that the pre-2007, two-runway system could handle in good weather.[219] ATL has been making positive strides toward addressing its current and future capacity problems, and looks to have sufficient capacity to handle projected passenger traffic in coming decades.

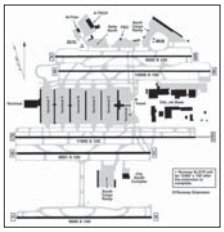

Figure A-12: Hartsfield-Jackson Atlanta International Airport Layout

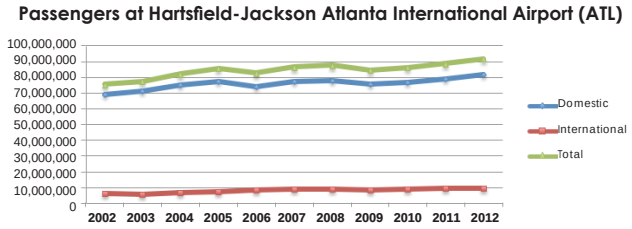

Figure A-11: Passengers at Hartsfield-Jackson Atlanta International Airport (ATL)

SAN FRANCISCO INTERNATIONAL AIRPORT (SFO)
SAN FRANCISCO, CALIFORNIA

San Francisco International Airport (SFO), located 13 miles south of downtown San Francisco, is the largest airport in the Bay Area and is a major hub for air travel on the west coast of the United States. In 2012, SFO moved just over 42.6 million passengers, 21 percent were international passengers.[220] SFO's passenger levels did not have an interruption in growth during the recession, shown in Figure A-13, and are expected to continue to grow faster than any other airport in the region.[221]

SFO hosts 54 international and domestic airline carriers, with the largest share being United, accounting for around 49.5 percent of the airport's traffic.[222] Other airlines servicing a substantial market share at SFO include Delta (9 percent), American (8 percent), Southwest (9.14 percent), and Virgin America (7 percent).[223]

Nearby airports in Oakland and San Jose have attempted to gather some of the regional traffic, particularly from low cost carriers but have not had the same growth as SFO, consistent with the trend toward consolidation at larger hub airports.

San Francisco International Airport

Current Capacity

SFO operates two intersecting sets of two parallel runways that are very close together. The small separation between the parallel runways is a result of an airfield that has only minor updating since the initial construction in the 1950s.[224] As a result of the increased size of aircraft, the runways are now too close together for parallel approaches under poor weather conditions. This has drastically reduced the number of aircraft that can land safely at SFO, especially combined with chronic weather issues in the Bay Area.

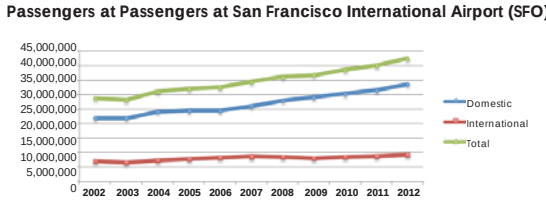

Figure A-13: Passengers at San Francisco International Airport (SFO)

Other incidents and concerns regarding safety have also called into question SFO's design. On July 6, 2013, Asiana Flight 214 crashed during landing on SFO Runway 28L..[226] In response, the FAA issued a temporary rule stating that international carriers will no longer be allowed to land side-by-side at SFO regardless of weather conditions, however domestic carriers are still allowed to land side-by-side in fair weather.[227] This temporary regulation decreased airside capacity for international carriers at SFO, and while it was subsequently lifted, it demonstrates the instability of the airport's capacity.

Future Capacity

SFO has experienced capacity challenges that are projected to remain and intensify as passenger demand increases. In 2010, the San Francisco Metropolitan Transportation Commission (MTC) led a study that included input from the FAA, regional airports, and other regional planning organizations to examine future airport capacity in the Bay Area.

The study was completed in 2011, and projects that by 2035 the Bay Area will move 101.3 million annual passengers, a 67 percent increase from 2011.[228] Combined, the three largest Bay Area air travel hubs are projected to face capacity issues around 2020,[229] and will not have the capacity to meet demand projections for 2035.[230]

Another report, conducted in 2010 by the Flight Transportation Associates, similarly projects that if no improvements or expansions are made, SFO will reach full capacity sometime between 2020-2035.[231] The FAA's FACT 2 report identified similar capacity restraints to SFO, citing 2025 as the year that the airport would reach capacity.[232]

In response to the projected capacity challenges at SFO, the reports propose solutions to remedy congestion issues. SFO's location, surrounded by the San Francisco Bay, has been a barrier that continues to strongly challenge physical expansions of the airport's footprint, particularly of runways. As a result, the majority of alternatives to reduce congestion at SFO have focused on the use of improved air traffic and demand technologies, and increased reliance upon other airports.[233] No capacity improvement projects that will add more runways or reconfigure the existing runways are planned, nor has the Bay Area identified a way to pay for any such improvements.

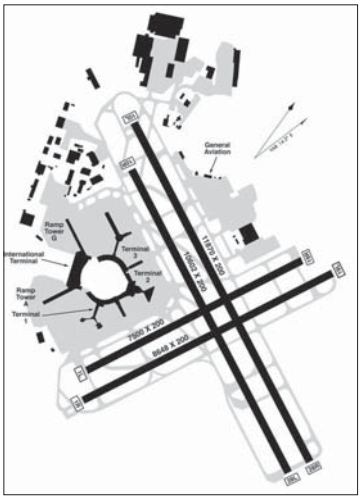

Figure A-14: San Francisco International Airport Layout

GEORGE BUSH INTERCONTINENTAL AIRPORT (IAH)
HOUSTON, TEXAS

George Bush Intercontinental Airport (IAH) services the Houston metropolitan region as the area's primary international gateway. IAH is located 23 miles north of downtown Houston, near the Sam Houston Tollway, and spans 10,000 acres of land.[234] The airport was named the fastest growing of the top ten airports by the USDOT in 2006, but since the recession and the merger of Continental Airlines with United, the airport has had an overall decline in passenger growth.

However, international passenger traffic has continued to increase over the past decade at IAH, unaffected by decreasing domestic traffic, shown in Figure A-15. According to a 2011 Forecast of Aviation Demand by GRA International, overall passenger traffic at IAH is projected to increase through 2030.[235]

IAH serves over 170 destinations domestically and around the world, with nearly 40 million passengers passing through IAH in 2012. The airport offers more service to Mexico than any other U.S. airport, serving 30 Mexican destinations.

Prior to the merger with United Airlines, Houston-based Continental Airlines operated its largest hub presence at DFW airport. Only 20 airlines operate out of IAH, with United having the strongest presence (85.6 percent of flights in 2012).[236]

The current runway configuration at IAH allows five runways to operate concurrently, illustrated in Figure A-16. In terms of landside capacity, IAH has five terminals and 181 gates.[237] Terminal E, the airport's newest terminal, opened in 2003, is designed to provide a streamlined experience for international travelers, merging customs, immigration, and baggage to serve international visitors. The airport's renovations for efficiency have proven to be successful, as the airport was named the most "on-time" airport in the nation by the FAA in 2010.[238] The rapid passenger growth experienced at the beginning of last decade has tapered at IAH, and as a result it is likely that the airport's current capacity will be sufficient beyond 2025. IAH is working to meet projected capacity needs through a number of capital projects including expansion and redevelopment of Terminal B, however has no other major expansion projects slated.[239]

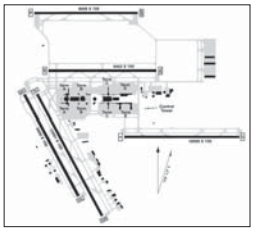

Figure A-15: George Bush Intercontinental Airport Layout

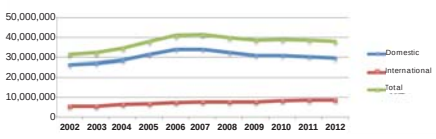

Figure A-15: Passengers at George Bush Intercontinental Airport (IAH)

WASHINGTON DULLES INTERNATIONAL AIRPORT (IAD)
WASHINGTON, DC

The Metropolitan Washington Airports Authority (MWAA) operates two airports for domestic and international air service to the Washington, DC. metropolitan area – Washington Dulles International Airport (IAD) and Reagan National Airport (DCA). Located on 12,000 acres of land, IAD is located in Chantilly, Va. – 26 miles west of downtown Washington, DC.[240] DCA operates primarily domestic flights into the nation's capital, while IAD serves both domestic and international flights.

In 2012, Dulles Airport moved approximately 21.6 million passengers, down from the peak passenger rate of 25 million in 2005. Passenger traffic at IAD grew dramatically between 2002-2005, but between 2007 and 2012 passenger traffic declined at an average rate of 1.77 percent.[241]

International passenger traffic steadily increased between 2002 and 2012 at Dulles Airport, and is expected to continue to increase.[242] Figure A-17 details IAD's passenger growth and decline between 2002 and 2012.

IAD provides non-stop service to 81 U.S. destinations and 48 international destinations.[244] Thirty airlines operate out of IAD, 24 are international airline carriers.

The largest airline at IAD is United, accounting for 64.1 percent of IAD passengers in 2010.[245] However, in 2012, United began decreasing flights and seat capacity at IAD along with other carriers who have also began to focus on serving the DC metropolitan region with flights out of DCA and Baltimore's BWI airport.[246]

Airside capacity at IAD is comprised of four non-intersecting runways, one passenger terminal, and 181 airline gates, shown in Figure A-18.[247] IAD recently completed an airport-wide expansion in 2012 that increased capacity from 25 to 45 million passengers per year.

The Dulles Development Program (D2), designed by MWAA in 2000 to address future capacity projects to handle growth predictions included "two new parking garages, a fourth runway, a new concourse, a new Air Traffic Control Tower, pedestrian walkways, the AeroTrain System, and an expansion to the International Arrivals Building."[248]

As of 2011, all of these improvements to IAD have been completed, resulting in substantial capacity improvements.

MWAA has plans to add an additional runway and two more terminals in the next decade, in an effort to double the number of international passengers it processes.[249] The airport appears to currently have sufficient capacity, and plans for expansion that will address projected passenger traffic growth over the medium term.

In 2012, Washington Dulles Airport moved approximately 21.6 million passengers, down from the peak passenger rate of 25 million in 2005.

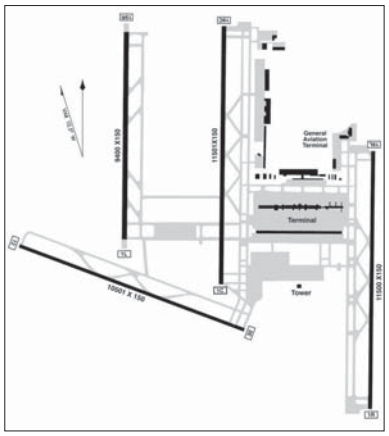

Figure A-18: Washington Dulles International Airport Layout

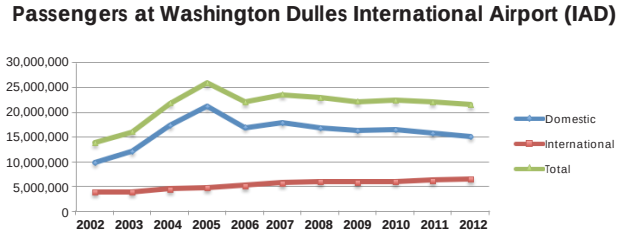

Figure A-17: Passengers at Washington Dulles International Airport (IAD)[243]

DALLAS FORT WORTH INTERNATIONAL AIRPORT (DFW)
DALLAS, TEXAS

Dallas-Fort Worth International Airport (DFW) is located between the metropolitan areas of Dallas and Fort Worth, Texas, taking up 17,207 acres and 26.9 square miles. DFW is the fourth busiest airport in the world in terms of aircraft operations, and the eighth busiest in terms of enplaned passengers.[250]

The airport is a hub for connecting flights, with 58 percent of its 2011 passengers connecting to another flight at the airport.[251] Between the years 2007 and 2010, total passenger traffic declined slightly, however passenger growth began building in 2011.

Twenty airlines serve DFW, including 11 domestic and nine international carriers. American Airlines is DFW's largest carrier, handling 82.4 percent of the airport's passengers in 2011.[253] American serves 145 domestic destinations and 41 international destinations from DFW.

Other airlines operating at DFW include Delta, Continental, United, and Alaska Airlines. DFW offers 41 international flights per day across four continents.[254]

DFW has four parallel runways, a fifth parallel shorter runway, and two additional runways arranged at a 45 degree angle, as illustrated in Figure A-20. DFW has plans to expand its landside capacity by 2010, with a seven-year growth plan, but also plans to add more international service in the next 20 years. Between eight and 15 new airlines are expected to begin service at DFW, servicing 26 new international destinations.[255]

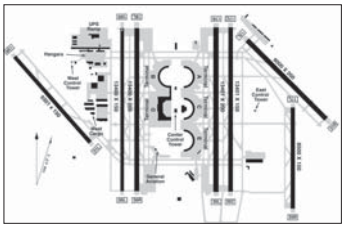

Figure A-20: Dallas Fort Worth International Airport Layout

Until recently, DFW's size has given the airport significant flexibility in capacity and future physical expansion. The airport is so large that it has its own area zip code.[256] The airport has a reputation for having minimal delay – between May 2012 and April 2013, 80.5 percent of DFW's flights were reported to be "on-time,' the second highest rate in the country. As such, the airport has not been designated for needing increased capacity – according to a recent DFW study the airport "has significant runway and terminal capacity…and will not need to add need facilities for many years."[257]

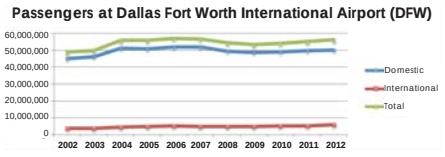

Figure A-19: Passengers at Dallas-Fort Worth International Airport (DFW)[249]

PHILADELPHIA INTERNATIONAL AIRPORT (PHL)
PHILADELPHIA, PENNSYLVANIA

Philadelphia International Airport (PHL) is located seven miles southwest of downtown Philadelphia, and is the primary airport serving the fifth largest metropolitan area in the nation. PHL is the ninth busiest airport in the United States and the eleventh busiest airport in the world in terms of overall passengers.[258]

As displayed in Figure A-21, domestic passengers make up the majority of the airport's passengers, and the share has not experienced much change since the early 2000s. Overall passenger growth at the airport plateaued during the 2007-2008 recession and has since experienced a slight decline, hovering around 25 million annually.

The airport is a hub for both US Airways and Southwest, and in 2012, Virgin American and Alaskan Airlines also added service to Philadelphia.[259] Though US Airways has operated as a hub at PHL for several years, the airline has begun discussions to remove its hub status at PHL as a result of its pending merger with American Airlines[260] Philadelphia is a profitable hub for US Airways, who uses PHL to connect passengers between 88 domestic destinations and 26 international destinations.[261] To move passengers through the airport, PHL has six terminals and 129 gates. According to the FAA's 2007 Capacity Needs in the National Airspace System report, PHL was the fourth most delayed airport in the country in 2009, accounting for more than 8 percent of the delays in the nation.[262]

In efforts to address capacity and delay concerns, PHL began the airport-wide Capacity Enhancement Program (CEP) in 1999.[263] The CEP underwent a 10-year planning process, and as a result, in 2001, two new terminals were constructed and existing terminals expanded. In 2010, the Terminal E expansion was opened, including seven new gates for aircraft. The current layout of the airport is shown in Figure A-22.

Figure A-22: Philadelphia International Airport Layout

Since PHL has recently significantly expanded, it appears that the airport currently has sufficient capacity for passenger demand. However, significant growth at the airport is likely to quickly result in congestion. According to the 2007 FACT 2, PHL will need further capacity increases by 2035 even with scheduled capacity enhancement.[264] However, with a reduction of flights operating through US Airways, PHL may have sufficient capacity beyond for the foreseeable future.

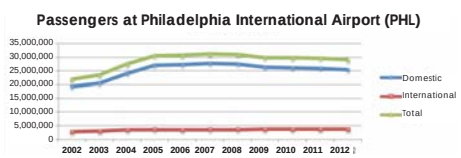

Figure A-21: Annual Total Passengers at Philadelphia International Airport (PHL)

BOSTON LOGAN INTERNATIONAL AIRPORT (BOS)

BOSTON, MASSACHUSETTS

Boston Logan International Airport (BOS) – located three miles to the northeast of downtown Boston – is the largest airport in Massachusetts, providing non-stop service to 32 international destinations.[265] BOS has experienced an overall passenger traffic increase between 2002 and 2012, and a steady increase in international passengers during the same period. The airport served close to 30 million passengers in 2012, and the large majority of passengers were domestic, illustrated in Figure A-23.

BOS serves as a hub for JetBlue (28.5 percent of passengers in 2012) and as a hub for the regional airline PenAir. Other airlines that service BOS include United (13.1 percent), US Airways (12.8 percent), American (12.1 percent), and Delta (10.8 percent).[267] A decade ago, American was BOS' biggest carrier, but has now shrunk to the fourth largest carrier at the airport as a result of focusing instead on other cities: DFW, MIA, ORD, LAX, and JFK.[268] If the US Airways/American merger occurs, the combined carrier has the potential to be a major presence at BOS in the near future.

The airport borders the Boston Harbor, and as a result, has been limited for both runway and terminal expansion. In the early twentieth century, the airport authority ameliorated capacity problems by constructing an additional runway space on infill in the harbor. Since that time, expansion of runway and terminal facilities to match passenger demand has encountered environmental and political challenges due to the airport's location along a water body and within an urbanized area. Figure A-24 illustrates the current layout of the airport's six intersecting runways and five terminals.

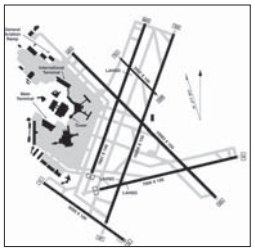

Figure A-24: Boston Logan Airport Layout

The FAA's 2007 Capacity Needs in the National Airspace System report does not project that BOS will face capacity problems in the next 20 years, after the completion of the Logan Modernization Project in 2006. Beginning in 1994, the airport began the project to improve the entire airport, particularly the roadways and terminals, to serve future passenger demand.[269] The project was completed in 2006, and included a new mass transit station, an accessible parking garage, a LEED certified terminal, and a two tiered road system.[270] Looking to the future of the airport, it is projected that both airside or landside capacity constraints will not pose substantial challenges to BOS in the near future.

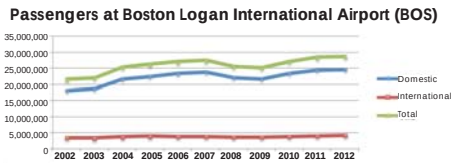

Figure A-23: Total Annual Passengers at Boston Logan International Airport (BOS)[266]

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Exhibit I

Southern California Association of Governments
2040 RTP/SCS, Aviation & Airport Ground Access Appendix

AVIATION AND AIRPORT GROUND ACCESS

SCAG REGION AIRPORTS

INTRODUCTION

As illustrated in EXHIBIT 1, the six counties of Southern California that make up the SCAG region are home to an airport sywstem of more than 50 airports. The airport identifier codes assigned by the Federal Aviation Administration to the region's airports are listed in TABLE 1. Ten of the airports are commercial airports, of which six had schedule commercial airline services in 2012, and one (March Inland Port, RIV) is a joint-use military airfield.

Because Southern California is a region with multiple airports that have overlapping catchment areas, travelers to and from the region can choose among several airports for their needs. Predicting future traffic levels at individual airports cannot be done in isolation and must consider the trends and dynamics occurring at other regional airports.

Therefore, to develop the projections of future activity, a forecast methodology has been adopted that blends a macro-economic forecast model relating historic passenger traffic to key socioeconomic variables for the entire SCAG region, with a traffic allocation model that allocates traffic across the individual airports based on factors that are known to drive a passenger's preference for a certain airport.

HISTORICAL COMMERCIAL PASSENGER TRAFFIC DEVELOPMENT

As illustrated in FIGURE 1, aggregate historic passenger traffic at the SCAG region airports increased from 63.0 million annual passengers in 1990 to 88.0 million annual passengers in 2013, equivalent to a compound annual growth rate of 1.5 percent. In the last decade of the 20th century, traffic at the SCAG region airport system experienced a faster growth than had occurred over 1975-1990. In the period between 1990 and 2000, passenger traffic increased at an average growth rate of 3.4 percent, reaching a high of 88.7 million annual passengers in 2000. Following the terrorist attacks of September 11, 2001, the number of passengers decreased significantly. A softening economy in combination with tightened airport security measures led to weakened demand conditions and a decline in passenger traffic. Only in 2007, when the airports in the SCAG region handled 89.4 million passengers, did traffic finally exceed the previous high achieved in 2000. The recovery did not last long though, as the global financial crisis of 2007 had a profound impact on the air transport market in the United States, particularly California, where the housing crisis was severe. As a result, traffic numbers decreased to 79.0 million passengers in 2009, before demand conditions gradually improved again.

Throughout the historic period reviewed, the domestic market accounted for the majority of origin and destination (O&D) traffic at the SCAG region airports. Although the international segment gained importance, domestic O&D traffic in 2013 still accounted for 73.4 percent of total O&D traffic, compared to 80.4 percent in 1990. In addition to O&D traffic, the airport system in the SCAG region also handles a substantial amount of connecting traffic. The share of connecting passengers at the airports in the SCAG region has hovered around 17 percent of total enplaned and deplaned (E/D) passengers during the historic period reviewed.

AIRPORT PROFILES

Los Angeles International Airport (LAX) is the busiest airport located in the SCAG region in terms of passenger volume. As illustrated in FIGURE 2, LAX handled nearly three quarters of all commercial passenger traffic in the SCAG region in 2012. John Wayne Airport (SNA), located in Orange Country, is the second busiest airport, followed by LA/Ontario International Airport and Burbank Bob Hope Airport. See the following pages for profiles of the six major airports in the SCAG region that currently have commercial service.

FIGURE 1 Historic Traffic Development SCAG Region Airports

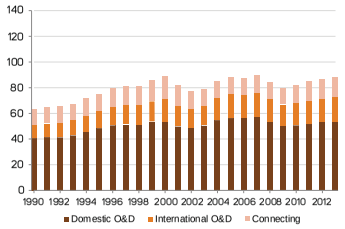
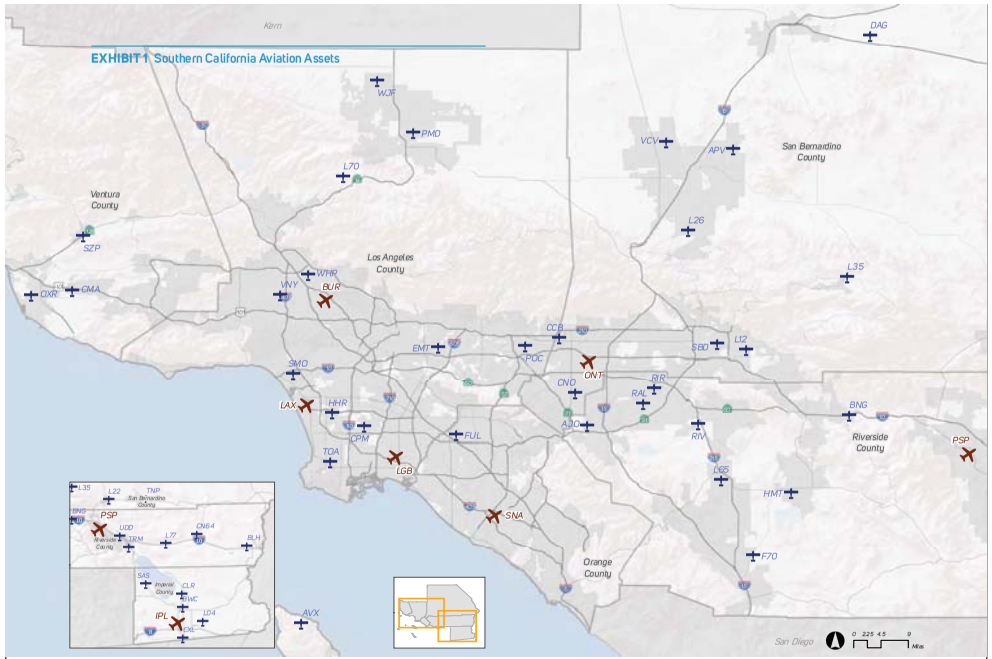


EXHIBIT 1 Southern California Aviation Assets



Airports with scheduled service

All other airports

Source: SCAG, 2015

TRANSPORTATION SYSTEM
AVIATION & AIRPORT GROUND ACCESS

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

2016 2040 RTPSCS

APPENDIX

PROPOSED FINAL | MARCH 2016

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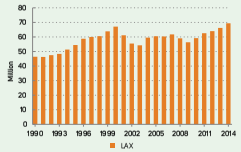
2016 2040 RTPSCS

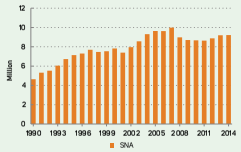
APPENDIX

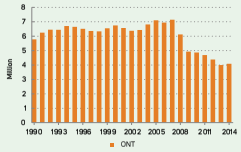
TRANSPORTATION SYSTEM | AVIATION & AIRPORT GROUND ACCESS

PROPOSED FINAL | MARCH 2016

AIRPORT PROFILES







LOS ANGELES INTERNATIONAL AIRPORT

Following a decade of continuous growth in the nineties, passenger traffic at LAX is still recovering from the impact of subsequent exogenous shocks, including 9/11 and the global financial crisis. Passenger traffic in 2014 was up 6% compared to the previous year; the total of 70.66 million annual passengers was the first time the airport exceeded the previous high of 67.1 million attained in 2000.

Los Angeles International Airport is the primary airport serving the Greater Los Angeles Area and is a hub for the major US legacy carriers American Airlines, Delta, and United, in addition to Alaska Airlines and Virgin America.

Besides serving an extensive domestic network, LAX is also a key international gateway, with flights to six continents, and is also a major cargo airport.

JOHN WAYNE AIRPORT

John Wayne Airport is located in unincorporated Orange County, near the cities of Santa Ana, Irvine, Newport Beach and Costa Mesa. The airport is the second busiest airport in the SCAG region.

Passenger traffic at the airport has been more resilient to exogenous shocks than the other airports in the area. Demand recovered quickly after 9/11; however, the global financial crisis negatively affected demand for air travel in Orange County. Total passenger traffic in 2014 was 9.2 million, below the high of 10.0 million in 2007.

In 2014, Southwest was the largest carrier operating at the airport, followed by United, American, Delta, Alaska Airlines, and US Airways. The air service pattern is mostly focused on cities in western United States as well as the main hubs of the legacy airlines.

LA/ONTARIO INTERNATIONAL AIRPORT

LA/Ontario International Airport is located in Ontario in San Bernardino County. Los Angeles World Airports (LAWA) owns and operates the airport today. LAWA has agreed to terms and conditions for the transfer of the airport in the coming months to a new airport sponsor, the Ontario International Airport Authority (OIAA), pending review and approval by the Federal Aviation Administration (FAA).

Following the global financial crisis, passenger traffic at the airport dropped sharply from 7.1 million in 2007 to just under 4 million in 2013. Passenger traffic increased by 3.4% between 2013 and 2014.

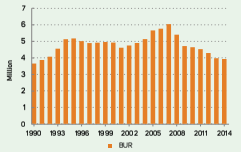
In 2014, Southwest was the largest carrier operating at the airport. The air service pattern is mostly focused on cities in western United States as well as the main hubs of the legacy airlines.

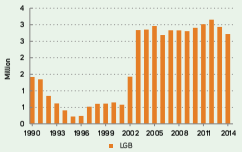
The airport is also a major cargo hub for UPS, facilitated by its geographic position, long runways, and relatively limited noise restrictions allowing for 24/7 operations.

TABLE 1 Airport Identifier Codes

Airport Code	Airport Name
L70	Agua Dulce Airpark
APV	Apple Valley Airport
OO2	Baker Airport
BNG	Banning Municipal Airport
DAG	Barstow-Daggett Airport
UDD	Bermuda Dunes Airport
L35	Big Bear City Airport
BLH	Blythe Airport
BUR	Bob Hope Airport, Burbank
POC	Brackett Field, La Verne
BWC	Brawley Municipal Airport
CCB	Cable Airport
CXL	Calexico International Airport
CMA	Camarillo Airport
AVX	Catalina Airport
49X	Chemehuevi Valley Airport
CNO	Chino Airport
L77	Chiriaco Summit Airport
CLR	Cliff Hatfield Memorial Airport, Calipatria
CPM	Compton/Woodley Airport
AJO	Corona Municipal Airport
CN64	Desert Center Airport, Palm Desert
RIR	Flabob Airport, Riverside
F70	French Valley Airport
FUL	Fullerton Municipal Airport
WJF	General William J. Fox Airfield, Lancaster
HHR	Hawthorne Municipal Airport
HMT	Hemet-Ryan Airport
L26	Hesperia Airport
IPL	Imperial County Airport
TRM	Jacqueline Cochran Regional Airport, Thermal
SNA	John Wayne Orange County Airport
LGB	Long Beach Airport
LAX	Los Angeles International Airport
RIV	March Air Reserve Base (March Inland Port)
EED	Needles Airport
ONT	Ontario International Airport
OXR	Oxnard Airport
PSP	Palm Springs International Airport
PMD	Palmdale Regional Airport
L65	Perris Valley Airport
L12	Redlands Municipal Airport
RAL	Riverside Municipal Airport
SAS	Salton Sea Airport
SBD	San Bernardino International Airport
EMT	San Gabriel Valley Airport
SMO	Santa Monica Airport
SZP	Santa Paula Airport
VCV	Southern California Logistics Airport, Victorville
TNP	Twenty Nine Palms Airport
VNY	Van Nuys Airport
WHP	Whiteman Airport, Pacoima
L22	Yucca Valley Airport
TOA	Zamperini Field, Torrance

AIRPORT PROFILES





BURBANK BOB HOPE AIRPORT

Bob Hope Airport is located northwest of downtown Burbank in Los Angeles County, serving the northern part of the Greater Los Angeles Area.

In recent years, passenger traffic at the airport has significantly declined from 6.0 million passengers in 2007 to 3.9 million passengers in 2014.

Southwest is the largest airline operating at the airport, serving mainly cities in the western United States.

LONG BEACH AIRPORT

Long Beach Airport is located northeast of the city of Long Beach in Los Angeles County.

The arrival of low-cost carrier JetBlue in 2001 led to a rapid increase in air traffic, and solidified LGB's position as an alternative to LAX for flights to the East Coast.

Due to stringent noise restrictions, the number of daily slots is currently restricted to 41, of which JetBlue operates 31. As a result of the local noise compatibility ordinance, traffic levels have been relatively steady, hovering around 3 million annual passengers. It is anticipated that the City of Long Beach will soon allow an additional 9 commercial departures per day based on the terms of the ordinance (for a total of 50 daily commercial departures).

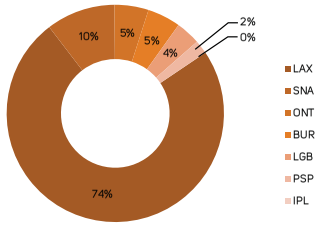
PALM SPRINGS INTERNATIONAL AIRPORT

Palm Springs International Airport is located in the desert resort city of Palm Springs in the Coachella Valley in Riverside County. The airport mainly caters to seasonal leisure travelers visiting the area during the winter.

Except for a few setbacks following the events of 9/11 as well as the global financial crisis, passenger traffic at the airport has increased steadily. In 2014 the airport handled 1.9 million passengers, which was a 9% increase compared to the previous year.

The main US carriers, such as United, Alaska, Southwest, and American all operate at PSP. Some carriers only provide service during the peak season.

FIGURE 2 Market Share of Commercial Airports in 2012



SOCIO-ECONOMIC OVERVIEW

INTRODUCTION

Demand for air travel is derived from socioeconomic interactions between origin and destination markets. Local economic activities generate the need for air travel, while the personal wealth of the local population drives discretionary spending, such as leisure trips requiring air travel. Additionally, an ethnically diverse region home to a significant number of foreign-born residents, such as Southern California, generates demand for air travel internationally, as friends and relatives maintain close ties.

There is a proven close relationship between economic activity and annual traffic growth. This relationship is illustrated in FIGURE 3, which shows the passenger traffic growth in the United States between 1990 and 2013 compared to overall economic growth. As the figure illustrates, air traffic activity trends upward with positive economic growth, and trends downward with negative or flat source-country economic growth. Passenger traffic in Southern California also has a high correlation to economic activity in the local market and its major source markets.

Comparatively speaking, air transport is one of the market sectors with the longest product life cycles as a result of high capital investment costs. During these lengthy life cycles, the relevant economic, social and political environment will change considerably.

FIGURE 3 Relationship Between Air Travel and Economy

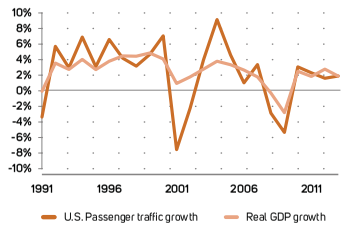
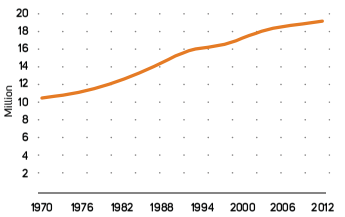


FIGURE 4 Historical Population Development in Southern California

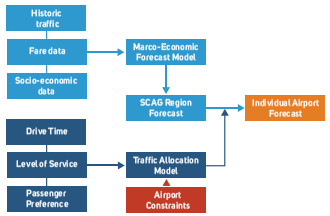


Dependable forecasting practice requires awareness of the uncertainties surrounding the forecasts. Considerable effort has been devoted to analyzing the factors affecting traffic activity at the airports in the SCAG region. However, as with any forecasts, there are uncertainties regarding these factors, such as the outlook for the local and world economies and the structure of the airline industry. A pragmatic and yet systematic approach has been used to produce a set of unbiased aviation activity forecasts for the region's airports.

As mentioned earlier, Southern California is a region with multiple airports that have overlapping catchment areas. Therefore, travelers to and from the region have the option to choose among several airports for their needs. Predicting future traffic levels at individual airports cannot be done in isolation and must consider the trends and dynamics occurring at other airports in the region. Since the catchment areas of the airports of San Diego, Carlsbad and Santa Barbara also overlap with the SCAG region, they have also been considered in the analysis.

To develop the projections of future activity, a forecast methodology has been adopted that blends a macro-economic forecast model relating historic passenger traffic to key socioeconomic variables for the entire SCAG region, with a traffic allocation model that allocates traffic across the individual airports based on factors that are known to drive a passenger's preference for a certain airport. The methodology is illustrated in EXHIBIT 2. For intra-California and short-haul domestic travel the model incorporates price and time competitiveness with other modes of travel, such as driving, conventional rail and High Speed Rail. The following sections elaborate upon the methodology used in each step of the forecasting process. The resulting forecasts are presented after the discussion of the methodology.

EXHIBIT 2 Forecast Methodology



DOMESTIC O&D TRAFFIC

Recognizing that different market regions have different demand drivers and dynamics, passenger O&D markets are typically divided into different market segments. This can be done based on characteristics of the market, such as geography and length of flight. By analyzing historic O&D traffic levels, domestic air passenger traffic to the region was divided into three key domestic market segments.

- Intra-California;
- Short-haul; and
- Medium-Long haul

The forecasting team investigated linear and logarithmic regression models before settling on a log-log specification. Log-log transformed models are typically used in air traffic forecasting, because taking the natural logarithm of the variables improves the model fit, and it also allows the regression coefficients to be easily interpreted as an elasticity, e.g. a 1 percent change in GDP is associated with a proportional percentage change in passenger traffic.

The following sections elaborate on the forecast methodology that was used for each domestic market segment.

INTRA-CALIFORNIA O&D TRAFFIC

To prepare the O&D passenger forecast for the Intra-California market segment the following approach was used:

1. Through an econometric modeling approach, the historic Intra-California O&D passenger traffic to the SCAG region airports, including the airports of San Diego, Carlsbad and Santa Barbara, has been related to the historic development of various socio-economic variables such as the economic growth in the region, population, per capita incomes, fare levels, crude oil prices and others.
2. A regression analysis has been performed to identify the variables that have the strongest correlation with the historic traffic development. Using the regression analysis, the Gross Regional Product of California (in real terms) and airfares proved to be the variables that best explain the development of Intra-California passenger traffic between 1990 and 2000. The regression analysis produced an R^2 value of 0.89, indicating that these variables are expected to serve as reliable

AIRPORT PROFILES

IMPERIAL COUNTY AIRPORT

Imperial County Airport is located in the city of Imperial in Imperial County, approximately twelve miles north of the California-Mexico border. The airport provides limited scheduled air service and also serves the general aviation needs of the surrounding communities.

Imperial County Airport is currently part of the Essential Air Service (EAS) program through the United States Department of Transportation, providing the residents of Imperial County a connection to the national aviation system. Passenger traffic peaked in 2001, with approximately 30,000 annual passengers, before gradually decreasing following the events of 9/11. Traffic began rebounding in 2006 before declining again after the global financial crisis. The airport participates in the federal Essential Air Service (EAS) program, which subsidizes air service to eligible small community airports.

predictors of future traffic development. The tightened security measures post 9/11 significantly increased passenger processing times at airports throughout the country and forced travelers to show up at the airport considerably earlier than before. Especially on short routes within California, the impact of the increased processing times had a relatively large impact on the total trip time. Road transport became a viable alternative, and, consequently, demand for air travel within California declined. This development is also illustrated in FIGURE 7, which shows the fit of the values generated by the regression model in comparison with actual historic traffic levels. After the events of 9/11, intra-California O&D passenger traffic dropped significantly until bottoming out in 2003. While the change in passenger behavior post 9/11 could not be anticipated by the regression model, the values produced by the model continue to follow a similar trend as actual traffic, and the model therefore remains a reliable predictor of future intra-California traffic levels, albeit it at a higher level. The difference between the values produced by the regression model and the actual values can be interpreted as a fair representation of the amount of passenger traffic that switched to other modes of transport.

3. The final model for Intra-California O&D traffic can be described by the following equation:

Ln(Intra-California Traffic) = c1 + c2 * Ln(Real California GDP) + c3 * Ln(Real Intra-California Fares) where:

- Ln is the natural log of the variable
- Intra-California traffic is O&D traffic within California
- Real California GDP is the Gross Regional Product of California adjusted for inflation
- Real Intra-California Fares are the fares on Intra-California routes in real U.S. dollars
- c1, c2, and c3 are the estimated model parameters capturing the impact of various factors on Intra-California traffic growth

The econometric model describing intra-California traffic resulted in the following values for the dominant parameters, or elasticities:

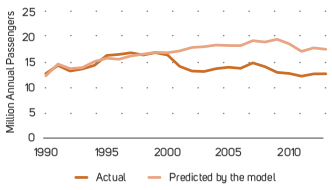
- GDP elasticity of 0.54
- Air Fare coefficient of -0.56

Considerable research (e.g., Air Travel Demand Elasticities: Concepts, Issues and Measurement, D. Gillen, W.G. Morrison and C. Stewart, 2002) has established a positive relationship between economic growth or income growth and air travel. In many cases, demand for air travel grows at a rate higher than that of the economy, so that each one-percent increase in GDP results in air traffic growth of 1 percent to 2 percent. However, as markets mature, GDP elasticity tends to decline – further GDP growth has a smaller impact on air travel growth. The United States tends to have relatively low elasticities between economic growth and air travel demand. Domestic U.S. air travel demand is often recognized to have an elasticity ratio to economic growth of 1 to 1. In contrast, a developing economy with travel to long-haul destinations may have elasticities exceeding 2 to 1. The regression results indicate a GDP parameter typical for a mature market such as within California: each one percent increase in GDP results in a 0.54 percent increase in traffic.

Research on air fare elasticities have produced values of between -0.2 and -2.0 (for example, see http://www.iata.org/whatwedo/Documents/economics/Intervistas_Elasticity_Study_2007.pdf). The fare elasticity estimates produced by the model fall within that range. Fare elasticities are affected by a range of factors, such as competition dynamics, income levels, and market maturity. The domestic model shows a moderate sensitivity to fare changes.

4. Using forecasts of the California Real Gross Domestic Product and a forecast of real air fares, future domestic forecast levels could be generated. Since 1945, airline yields and fares have declined on an almost continual basis. Between 1990 and 2008, U.S. system-wide yields declined by an average of 2.4 percent per annum . This decline has been the result of technological improvement, increasing load factors, and strong competition, particularly from low cost carriers. Much of this is the consequence of deregulation both within the U.S. and with international jurisdictions (e.g., open skies agreements). However, in recent years, yields in the U.S. have increased slightly, the result of high fuel prices and, more recently,

FIGURE 7 Goodness-of-fit Intra-California Traffic Model



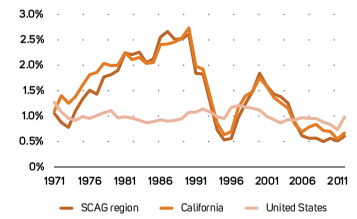
Such change affects the expected trends in traffic growth, and these market dynamics profoundly influence air carrier decisions on fleet and network expansion, which in turn affect airport developments. Given their relevance to air travel trends and developments, the following subsections highlight the socioeconomic conditions in the region.

POPULATION

The population of the SCAG region was about 18.2 million in 2012, as shown in FIGURE 4. Since 1970, population has increased at an average annual growth rate of 1.4 percent, although the average growth rate slowed down to 0.9 percent over the decade between 2002 and 2012. This rate of growth is not excessive, indicating that it is sustainable with appropriate investments in the economy. From 2013 to 2040, the population growth is projected to slow down even further to an average rate of 0.7 percent per year, which is consistent with the growth rates that have been experienced in recent years. A growing population drives the potential pool of travelers and is an indicator for future demand levels.

Historically, population growth in California as well as Southern California has outpaced national population growth, as illustrated in FIGURE 5. The diverse and large economies, proximity to the coast, and heavily-populated metropolitan areas have attracted a large share of immigrants from other states as well as other nations. Since 2004, however, the trend has reversed, and the country's overall population has increased at a faster rate than the population in the SCAG region.

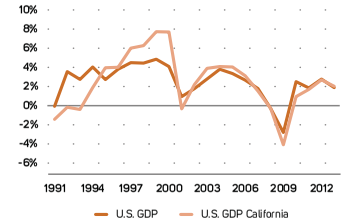
FIGURE 5 Historical Population Development in Southern California, California, and the United States



ECONOMY

As shown in FIGURE 6, the economy of California has experienced a somewhat cyclical growth pattern over the past decades. Slow growth during the 1990s recession was followed by an accelerated growth leading to the peak of the dot-com bubble in 2000. During this phase, the growth of the Californian economy actually outpaced national economic growth. While the economy recovered following the dot-com bust in 2001, the financial crisis led to another contraction of the region's economic output. While the region took a very hard hit during the global financial crisis, overall growth in Southern California is pointing toward continued economic recovery and progress.

FIGURE 6 Historical Development of California and the United States Gross Domestic Product in Real Terms



REGIONAL AIR PASSENGER DEMAND FORECAST

INTRODUCTION

Air travel is a derived demand. Demand for air transportation between origin and destination markets is derived from the socioeconomic interactions between these markets, shaped by carriers' networks and available airlift capacity. Generally, business/trade activity, tourism/visitor activity, and "visiting friends and relatives" (VFR) constitute the primary components of air travel at an airport.

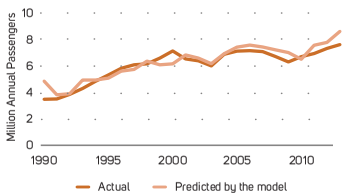
San Diego, Carlsbad and Santa Barbara, has been related to historic development of various socio-economic variables such as the economic growth in the region, population, per capita incomes, fare levels, crude oil prices and others.

2. A regression analysis has been performed to identify the variables that have the strongest correlation with the historic traffic development. The real Gross Domestic Product of the Asia and Oceania markets, in combination with fares, show the best fit with the historic passenger traffic development between 1990 and 2013. The regression analysis produced an R^2 value of 0.86. FIGURE 10 shows the excellent fit of the values generated by the regression model in comparison with actual historic traffic levels. The model is therefore deemed to be a reliable predictor of future O&D traffic to Asia and Oceania.
3. The final model for Asia/Oceania O&D traffic can be described by the following equation:

Ln(Asia/Oceania Traffic) = c1 + c2 * Ln(Real Asia/Oceania GDP) + c3 * Ln(Real Asia/Oceania Fares) + c4 * dummy9/11 + c5 * dummyGlobal Financial Crisis + c6 * dummySARS where:

- Ln is the natural log of the variable
- Domestic Asia/Oceania Traffic is O&D traffic to Asia/Oceania
- Real Asia/Oceania GDP is the Gross Domestic Product of Asia/Oceania adjusted for inflation
- Real Asia/Oceania Fares are the fares to Asia and Oceania markets in real U.S. dollars

FIGURE 10 Goodness-of-fit Asia/Oceania Traffic Model



- Dummy9/11 is a binary variable that takes on the value 1 in 2002 and 2003 and is 0 otherwise to represent the immediate impact of the September 11th events on traffic;
- DummyGlobal Financial Crisis is a binary variable that takes on the value 1 in 2009 and 2010 and is 0 otherwise to represent the impact of the global financial crisis on traffic;
- DummySARS is a a binary variable that takes on the value 1 in 2003 and is 0 otherwise to reflect the impact of SARS (Severe Acute Respiratory Syndrome) on traffic;
- c1, c2, c3, c4, c5, and c6 are the estimated model parameters capturing the impact of various factors on Asia/Oceania traffic growth
- The econometric model describing Asia/Oceania O&D traffic resulted in the following values for the dominant parameters, or elasticities:
- GDP elasticity of 0.38
- Air Fare coefficient of -0.96

4. Using forecasts of the Real Gross Domestic Product of Asia and Oceania and a forecast of real air fares, future forecast levels could be generated.

CANADA/GREENLAND O&D MARKET

To prepare the O&D passenger forecast for the Canada/Greenland O&D market the following approach was used:

1. Through an econometric modeling approach, the historic Canada/Greenland O&D passenger traffic development to the SCAG region airports, including the airports of San Diego, Carlsbad and Santa Barbara, has been related to historic development of various socio-economic variables such as the economic growth in the region, population, per capita incomes, fare levels, crude oil prices and others.
2. A regression analysis has been performed to identify the variables that have the strongest correlation with the historic traffic development. The real Gross Regional Product of the California, in combination with fares, show the best fit with the historic passenger traffic development between 1990 and 2013. The regression analysis produced an R^2 value of 0.95. FIGURE 11 shows the excellent fit of the values generated by the regression model in comparison with actual historic traffic levels. The model is therefore deemed to be a reliable predictor of future O&D traffic to Canada and Greenland.
3. The final model for Canada/Greeneland O&D traffic can be described by the following equation:

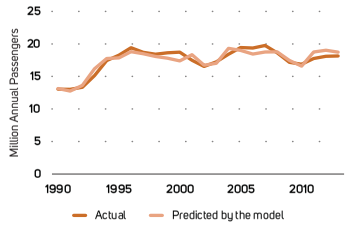
capacity restraint by U.S. carriers. It is assumed that these factors offset each other and air fares remain constant in real terms over the forecast period.

DOMESTIC SHORT-HAUL O&D TRAFFIC

To prepare the O&D passenger forecast for the domestic short-haul market segment the following approach was used:

1. Through an econometric modeling approach, the historic domestic short-haul O&D passenger traffic development to the SCAG region airports, including the airports of San Diego, Carlsbad and Santa Barbara, has been related to historic development of various socio-economic variables such as the economic growth in the region, population, per capita incomes, fare levels, crude oil prices and others.
2. A regression analysis has been performed to identify the variables that have the strongest correlation with the historic traffic development. The regression analysis identified the real Gross Regional Product of the short-haul markets in combination with fares as reliable predictors of short-haul domestic passenger traffic between 1990 and 2013. The regression analysis produced an R^2 value of 0.90. FIGURE 8 shows the excellent fit of the values generated by the regression model in comparison with actual historic traffic levels. The model is therefore deemed to be a reliable predictor of future O&D traffic to short-haul domestic markets.
3. The final model for Domestic Short-Haul O&D traffic can be described by the following equation:

FIGURE 8 Goodness-of-fit Domestic Short-Haul Traffic Model



Ln(Domestic Short-Haul Traffic) = c1 + c2 * Ln(Real Domestic Short-Haul GDP) + c3 * Ln(Real Domestic Short-Haul Fares) + c4 * dummyGulf War + c5 * dummy9/11 + c6 * dummyGlobal Financial Crisis where:

- Ln is the natural log of the variable
- Domestic Short-Haul Traffic is O&D traffic to domestic short-haul markets
- Real Domestic Short-Haul GDP is the Gross Regional Product of domestic short-haul markets adjusted for inflation
- Real Domestic Short-Haul Fares are the fares to domestic short-haul markets in real U.S. dollars
- DummyGulf War is a binary variable that takes on the value 1 in 1991 and 1992 and is 0 otherwise to represent the tempoarary impact of the Gulf War on traffic;
- Dummy9/11 is a binary variable that takes on the value 1 in 2002 and 2003 and is 0 otherwise to represent the immediate impact of the September 11th events on traffic;
- DummyGlobal Financial Crisis is a binary variable that takes on the value 1 in 2009 and 2010 and is 0 otherwise to represent the impact of the global financial crisis on traffic;
- c1, c2, c3, c4, c5, and c6 are the estimated model parameters capturing the impact of various factors on domestic short-haul traffic growth

The econometric model describing domestic short-haul traffic resulted in the following values for the dominant parameters, or elasticities:

- GDP elasticity of 0.20
- Air Fare coefficient of -0.70

4. Using forecasts of the Real Gross Regional Product of the short-haul markets and a forecast of real air fares, future forecast levels could be generated.

DOMESTIC MEDIUM-TO LONG-HAUL O&D TRAFFIC

To prepare the O&D passenger forecast for the domestic medium- to long-haul markets the following approach was used:

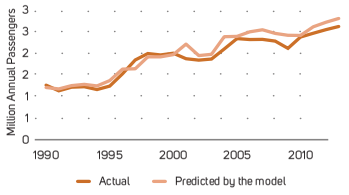
1. Through an econometric modeling approach, the historic domestic medium- to long-haul O&D passenger traffic development to the SCAG region airports, including the airports of San Diego, Carlsbad and Santa Barbara, has been related to historic development of various socio-economic variables such as the economic growth in the region, population, per capita incomes, fare levels, crude oil prices and others.

Ln(Canada/Greenland Traffic) = c1 + c2 * Ln(Real California GDP) + c3 * Ln(Real Canada/Greenland Fares) + c4 * dummy9/11 + c5 * dummyGlobal Financial Crisis where:

- Ln is the natural log of the variable
- Domestic Canada/Greenland Traffic is O&D traffic to Canada/Greenland
- Real Canada/Greenland GDP is the Gross Domestic Product of California adjusted for inflation
- Real Canada/Greenland Fares are the fares to Canada and Greenland markets in real U.S. dollars
- Dummy9/11 is a binary variable that takes on the value 1 in 2002 and 2003 and is 0 otherwise to represent the immediate impact of the September 11th events on traffic;
- DummyGlobal Financial Crisis is a binary variable that takes on the value 1 in 2009 and 2010 and is 0 otherwise to represent the impact of the global financial crisis on traffic;
- c1, c2, c3, c4, and c5 are the estimated model parameters capturing the impact of various factors on Canada/Greenland traffic growth

The econometric model describing Canada/Greenland O&D traffic resulted in the following values for the dominant parameters, or elasticities:

FIGURE 11 Goodness-of-fit Canada/Greenland Traffic Model



- GDP elasticity of 0.54
- Air Fare coefficient of -0.91

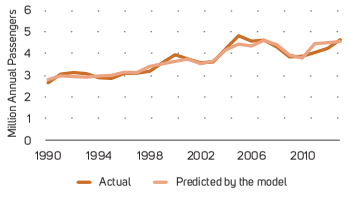
4. Using forecasts of the Real Gross Domestic Product of Canada and Greenland and a forecast of real air fares, future forecast levels could be generated.

MEXICO/CENTRAL AMERICA/CARIBBEAN O&D MARKET

To prepare the O&D passenger forecast for the Mexico/Central America/Caribbean O&D market the following approach was used:

1. Through an econometric modeling approach, the historic Mexico/Central America/Caribbean O&D passenger traffic development to the SCAG region airports, including the airports of San Diego, Carlsbad and Santa Barbara, has been related to historic development of various socio-economic variables such as the economic growth in the region, population, per capita incomes, fare levels, crude oil prices and others.
2. A regression analysis has been performed to identify the variables that have the strongest correlation with the historic traffic development. The real Gross Regional Product of the California, in combination with fares, show the best fit with the historic passenger traffic development between 1990 and 2013. The regression analysis produced an R^2 value of 0.93. FIGURE 12 shows the excellent fit of the values generated by the regression model in comparison with actual historic traffic

FIGURE 12 Goodness-of-fit Mexico/Central America/Caribbean Traffic Model

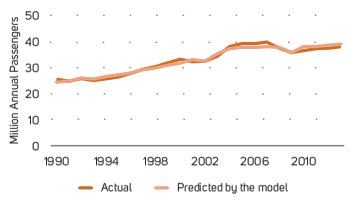


2. A regression analysis has been performed to identify the variables that have the strongest correlation with the historic traffic development. The real Gross Regional Product of the combined medium- and long-haul markets, in combination with fares, show the best fit with the historic passenger traffic development between 1990 and 2013. The regression analysis produced an R^2 value of 0.97. FIGURE 9 shows the excellent fit of the values generated by the regression model in comparison with actual historic traffic levels. The model is therefore deemed to be a reliable predictor of future O&D traffic to domestic medium- to long-haul markets.
3. The final model for Medium- to Long-Haul Domestic O&D traffic can be described by the following equation:

Ln(Domestic Medium- to Long-Haul Traffic) = c1 + c2 * Ln(Real Domestic Medium- to Long-Haul GDP) + c3 * Ln(Real Domestic Medium- to Long-Haul Fares) + c4 * dummy9/11 + c5 * dummyGlobal Financial Crisis where:

- Ln is the natural log of the variable
- Domestic Medium- to Long-Haul Traffic is O&D traffic to domestic medium- to long-haul markets
- Real Domestic Medium- to Long-Haul GDP is the Gross Regional Product of domestic medium- to long-haul markets adjusted for inflation
- Real Domestic Medium- to Long-Haul Fares are the fares to domestic medium- to long-haul markets in real U.S. dollars

FIGURE 9 Goodness-of-fit Medium- to Long-Haul Domestic Traffic Model



- Dummy9/11 is a binary variable that takes on the value 1 in 2002 and 2003 and is 0 otherwise to represent the immediate impact of the September 11th events on traffic;
- DummyGlobal Financial Crisis is a binary variable that takes on the value 1 in 2009 and 2010 and is 0 otherwise to represent the impact of the global financial crisis on traffic;
- c1, c2, c3, c4, and c5 are the estimated model parameters capturing the impact of various factors on domestic medium- to long-haul traffic growth

The econometric model describing domestic medium- to long-haul traffic resulted in the following values for the dominant parameters, or elasticities:

- GDP elasticity of 0.65
- Air Fare coefficient of -0.25

4. Using forecasts of the Real Gross Regional Product of the medium- to long-haul markets and a forecast of real air fares, future forecast levels could be generated.

INTERNATIONAL O&D TRAFFIC

Similar to the domestic O&D market, the international O&D market has also been divided into different market segments, based on the characteristics and dynamics of each market, such as geography and length of flight. By analyzing historic O&D traffic levels, air passenger traffic to the region was divided in terms of the key international market segments.

- Asia and Oceania
- Canada and Greenland
- Mexico, Central America and the Caribbean
- South America
- Trans-Atlantic (Africa, Europe and the Middle East)

The following sections elaborate on the forecast methodology that was used for each international market segment.

ASIA/OCEANIA O&D MARKET

To prepare the O&D passenger forecast for the Asia/Oceania O&D market, the following approach was used:

1. Through an econometric modeling approach, the historic Asia/Oceania O&D passenger traffic development to the SCAG region airports, including the airports of

The econometric model describing Trans-Atlantic O&D traffic resulted in the following values for the dominant parameters, or elasticities:

- GDP elasticity of 2.28
- Air Fare coefficient of -0.20

As the Trans-Atlantic market matures and gradually reaches saturation, the GDP parameter will decline to a value of 1.0 in 2040 reflecting the maturity of the local air transport market. As the forecast years progress, gradually decreasing elasticities of demand were therefore applied so that the long-term forecast accurately reflects the growing maturity of the Trans-Atlantic market. Finally, after applying the elasticities to generate passenger forecasts, the forecasts were critically reviewed for reasonableness and validated against the projections of independent industry regional forecasts, such as those prepared by Boeing and Airbus. Based on these comparisons, adjustments to the year-over-year passenger growth rates were made as necessary.

4. Using forecasts of the Real Gross Domestic Product of Europe and a forecast of real air fares, future forecast levels could be generated.

REGIONAL AIR PASSENGER DEMAND FORECAST RESULTS

Based on the methodology described above, forecast O&D passenger demand in the SCAG region is forecast to increase from 72.6 MAP in 2013 to 112.2 MAP in 2040. This rate of growth is equivalent to a compound annual growth rate of 1.6 percent. As shown in FIGURE 15, the U.S. domestic market remains the largest segment of demand, constituting nearly 70 percent of the market in 2040. Despite the continued dominance of the U.S. market, the demand for international travel to and from the region increases at a slightly higher rate over the forecast period.

Forecast total enplaned and deplaned passenger demand in the SCAG region is forecast to increase from 88.0 MAP in 2013 to 136.2 MAP in 2040. As shown in FIGURE 16, the share of connecting passengers is forecast to remain stable at about 17 percent. The forecast of 136.2 million E/D passengers and 112.2 million O&D passengers by 2040 represents a slower growth rate than anticipated in previous RTP documents. Below are the forecasts of total E/D passengers from the previous 5 RTPs:

- 1998 RTP—157.4 MAP in 2020
- 2001 RTP—167 MAP in 2025
- 2004 RTP—170 MAP in 2030
- 2008 RTP—165.3 MAP in 2035
- 2012-2035 RTP/SCS—145.9 MAP in 2035 (Baseline Scenario)

Through 2014, actual air passenger demand has been considerably below the trend lines predicted by prior forecasts. The declines in air travel resulting from the terrorist attacks of 2001, the bursting of the tech bubble in 2001 and the global financial crisis of 2007-2008,

FIGURE 15 Forecast O&D Passenger Demand

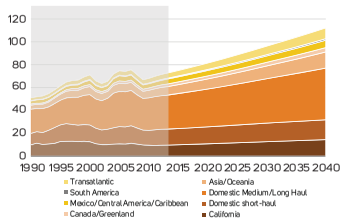
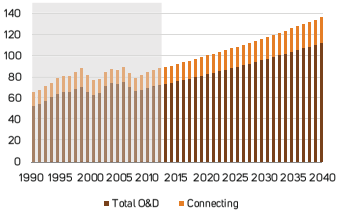


FIGURE 16 Forecast Total Enplaned and Deplaned Passengers



and the ensuing recessions could not have been forecast. Although annual growth in air travel may exceed the currently forecast rate of 1.6 percent in some of the years ahead, there will almost certainly be other worldwide economic and geopolitical events between now and 2040 that will temper the overall growth rate. The forecast average growth in air travel of 1.6 percent per year is based on the same regional socioeconomic forecasts used elsewhere in this RTP/SCS.

AIRPORT DEMAND FORECASTS

The previous sections described the methodology used to forecast passenger traffic to the SCAG region as a whole. In the next step, this regional air passenger traffic has to be allocated to the individual airports in the SCAG region. The air passenger demand handled by each airport in the region depends on passengers' choices regarding which airport to use, as well as physical and policy constraints that may limit an airport's ability to accommodate the demand. As discussed below, passengers' choices regarding which airport to use are themselves constrained by airlines' decisions concerning which airports to serve. The following subsections discuss these factors and the resulting forecast passenger demand at each airport in the region.

AIR TRAFFIC ALLOCATION MODEL

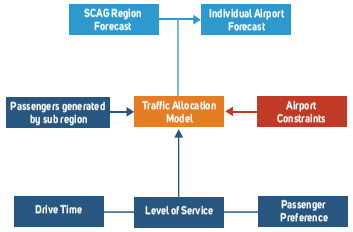
A traveler's decision to use a particular airport to begin or end a journey depends on a number of factors. The drive time required to reach the airport, the level of air service in terms of the number of frequencies and destinations that are offered, the airline portfolio, as well as other less quantifiable factors, such as convenience and past experiences, also influence the passenger's choice.

The methodology to allocation traffic across the individual airports is presented in EXHIBIT 3. Before traffic can be allocated across the various airports, an assessment must be made concerning how much passenger traffic each subregion within the SCAG region generates. For each of the subregions, an estimate has been made of what share it generated of the total air passenger traffic in the region in 2012. The traffic-generating ability of each subregion can be expressed through a wealth-, or income-adjusted population size, where the population size of each region is either discounted or increased by the ratio between the average household income of that particular subregion divided by the average household income of the entire region. The amount of passenger traffic handled by all the airports in the region is then allocated proportionally based on the wealth-adjusted population calculated for each subregion.
With the amount of traffic generated by each subregion estimated, the next step is to allocate traffic across the various airports. As mentioned earlier, this is primarily a function of access time, level of airline service, and general passenger preferences.

These factors are discussed below:

- **DRIVE TIME:** Access time to an airport is an important factor driving the decision of a traveler to use a particular airport; to minimize total trip time, people typically have a preference for nearby airports. By using geographic information system software, the size of the population living within a certain drive time of the airport can be calculated. For each airport in the region, the population size within a 30-minute, 60-minute, and 90-minute drive time has been calculated. The results are compiled into a single catchment area population size, in which the number of people living within a 60-minute and 90-minute drive are discounted to reflect the fact that the attractiveness of an airport decreases with drive time. Based on the total number of people living in the overall catchment area, each airport receives a score to represent its attractiveness to travelers from each sub region in terms of drive time.
- **LEVEL OF AIRLINE SERVICE:** Another important criterion influencing a passenger's choice is the level of service that is offered at the particular airport. This is mainly determined by the airline and destination portfolio as well as the number of frequencies that are offered. Based upon these factors, each airport received a level of service score.
- **PASSENGER PREFERENCE:** In addition to access time and level of service, the passenger's choice to use a certain airport is also driven by less quantifiable and subjective factors, such as past experiences and perceived convenience.

EXHIBIT 3 Air Traffic Allocation Model



levels. The model is therefore deemed to be a reliable predictor of future O&D traffic to Mexico, Central America, and the Caribbean.

3. The final model for Mexico/Central America/Caribbean O&D traffic can be described by the following equation:

Ln(Mexico/Central America/Caribbean Traffic) = c1 + c2 * Ln(Real California GDP) + c3 * Ln(Real Mexico/Central America/Caribbean Fares) + c4 * dummy9/11 + c5 * dummyGlobal Financial Crisis where:

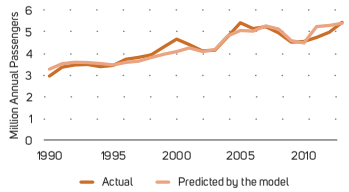
- Ln is the natural log of the variable
- Domestic Mexico/Central America/Caribbean Traffic is O&D traffic to Mexico/Central America/Caribbean
- Real Mexico/Central America/Caribbean GDP is the Gross Domestic Product of California adjusted for inflation
- Real Mexico/Central America/Caribbean Fares are the fares to Canada and Greenland markets in real U.S. dollars
- Dummy9/11 is a binary variable that takes on the value 1 in 2002 and 2003 and is 0 otherwise to represent the immediate impact of the September 11th events on traffic;
- DummyGlobal Financial Crisis is a binary variable that takes on the value 1 in 2009 and 2010 and is 0 otherwise to represent the impact of the global financial crisis on traffic;
- c1, c2, c3, c4, and c5 are the estimated model parameters capturing the impact of various factors on Mexico/Central America/Caribbean traffic growth

The econometric model describing Mexico/Central America/Caribbean O&D traffic resulted in the following values for the dominant parameters, or elasticities:

- GDP elasticity of 0.48
- Air Fare coefficient of -0.64

4. Using forecasts of the Real Gross Domestic Product of Mexico, Central America, and the Caribbean and a forecast of real air fares, future forecast levels could be generated.

FIGURE 13 Goodness-of-fit Latin America Traffic Model



SOUTH AMERICA O&D MARKET

While O&D traffic to South America has shown robust growth rates over the past decades, the traffic volumes are still too modest to produce meaningful and reliable macro-economic models. Since a significant share of O&D traffic to South America flows through one of the hubs in Central America, such as Panama or Mexico City, O&D traffic to South America will be influenced by the available capacity to Mexico and Central America. The South America market is therefore combined with the Mexico/Central America/Caribbean market into an aggregate Latin America market segment.

To prepare the O&D passenger forecast for the South America O&D market the following approach was used:

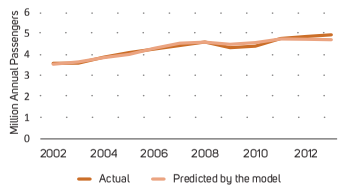
1. Through an econometric modeling approach, the historic Latin America O&D passenger traffic development to the SCAG region airports, including the airports of San Diego, Carlsbad and Santa Barbara, has been related to historic development of various socio-economic variables such as the economic growth in the region, population, per capita incomes, fare levels, crude oil prices and others.
2. A regression analysis has been performed to identify the variables that have the strongest correlation with the historic traffic development. The real Gross Domestic Product of the Latin America countries, in combination with fares, show the best fit with the historic passenger traffic development between 1990 and 2013. The regression analysis produced an R^2 value of 0.90. FIGURE 13 shows the excellent fit of the values generated by the regression model in comparison with actual historic traffic levels. The model is therefore deemed to be a reliable predictor of future O&D traffic to Latin America.
3. The final model for Latin America O&D traffic can be described by the following equation:

Ln(Latin America Traffic) = c1 + c2 * Ln(Real Latin America GDP) + c3 * Ln(Real Latin America Fares) + c4 * dummy9/11 + c5 * dummyGlobal Financial Crisis where:

- Ln is the natural log of the variable
- Domestic Latin America Traffic is O&D traffic to Latin America
- Real Latin America GDP is the Gross Domestic Product of the Latin American countries adjusted for inflation
- Real Latin America Fares are the fares to Canada and Greenland markets in real U.S. dollars
- Dummy9/11 is a binary variable that takes on the value 1 in 2002 and 2003 and is 0 otherwise to represent the immediate impact of the September 11th events on traffic;
- DummyGlobal Financial Crisis is a binary variable that takes on the value 1 in 2009 and 2010 and is 0 otherwise to represent the impact of the global financial crisis on traffic;
- c1, c2, c3, c4, and c5 are the estimated model parameters capturing the impact of various factors on Latin America traffic growth

The econometric model describing Latin America O&D traffic resulted in the following values for the dominant parameters, or elasticities:

FIGURE 14 Goodness-of-fit Trans-Atlantic Traffic Model



- GDP elasticity of 0.46
- Air Fare coefficient of -0.54

4. Using forecasts of the Real Gross Domestic Product of Mexico, Central America and the Caribbean and a forecast of real air fares, future forecast levels could be generated.
5. Apply the growth rates of the resulting Latin America traffic model to the actual South America O&D traffic levels

TRANS-ATLANTIC O&D MARKET

To prepare the O&D passenger forecast for the Trans-Atlantic O&D market the following approach was used:

1. Through an econometric modeling approach, the historic Trans-Atlantic O&D passenger traffic development to the SCAG region airports, including the airports of San Diego, Carlsbad and Santa Barbara, has been related to historic development of various socio-economic variables such as the economic growth in the region, population, per capita incomes, fare levels, crude oil prices and others.
2. A regression analysis has been performed to identify the variables that have the strongest correlation with the historic traffic development. The real Gross Domestic Product of Europe, in combination with fares, show the best fit with the historic passenger traffic development between 2002 and 2013. The regression analysis produced an R^2 value of 0.94. FIGURE 14 shows the excellent fit of the values generated by the regression model in comparison with actual historic traffic levels. The model is therefore deemed to be a reliable predictor of future O&D traffic to the Trans-Atlantic markets.
3. The final model for Trans-Atlantic O&D traffic can be described by the following equation: **Ln(Trans-Atlantic Traffic) = c1 + c2 * Ln(Real Europe GDP) + c3 * Ln(Real Trans-Atlantic Fares)** where:
   - Ln is the natural log of the variable
   - Domestic Trans-Atlantic Traffic is O&D traffic to Africa, Europe and the Middle East
   - Real Trans-Atlantic GDP is the Gross Domestic Product of Europe adjusted for inflation
   - Real Trans-Atlantic Fares are the fares to Africa, Europe, and the Middle East markets in real U.S. dollars
   - c1, c2, and c3 the estimated model parameters capturing the impact of various factors on Trans-Atlantic traffic growth

ADG III in the future (having an average of 162 seats) and current load factors, 41 commercial flights could potentially accommodate 4.0 MAP. Commuter service with a typical regional jet having 66 seats could accommodate another 1.0 MAP, at current load factors. Therefore, the noise compatibility ordinance imposes a practical limit of 5.0 MAP at Long Beach Airport. This limit is also below the capacity of the airport's terminal and airfield. It is anticipated that the City of Long Beach will soon allow an additional 9 commercial departures per day based on the terms of the ordinance (for a total of 50 daily commercial departures). If the additional departures are able to be utilized the assumptions and capacity analysis results may need to be updated for Long Beach Airport.

JOHN WAYNE AIRPORT

The runway system at John Wayne Airport consists of two parallel runways. The primary runway 2L/20R is 5,701 feet long, while the secondary runway 2R-20L is only 2,887 feet long. The secondary runway is not equipped for instrument approach procedures. The centerlines of the runways are separated by 500 feet, which does not allow for operation of simultaneous arrivals and departures under visual flight rules (VFR). The short secondary runway offers some operational benefits for smaller aircraft that enhances capacity under VFR conditions. During periods of instrument flight rule (IFR), operations are basically limited to the primary runway, on which the airlines operate.

As with the other airports, a series of scenarios crossed with sensitivity tests varying in assumptions about fleet mix and runway operations was conducted for John Wayne Airport, similar to the analyses conducted for the other airports. The scenarios varied with regard to the percentage of flight operations assumed to be conducted by commercial carriers (from 35 percent to 55 percent). The sensitivity tests varied primarily in the percentage of time that it is assumed the airport can operate under VFR conditions (from 53 percent to 95 percent).

TABLE 2 Airport Capacity Constraints (MAP, Million Annual Passengers)

Airport	Constraint	Source of Constraint
BUR	7.3	Airfield
LAX	82.9 – 96.6	Airfield
LGB	5.0	Noise compatibility ordinance
SNA	12.5	Settlement agreement adopted by Board of Supervisors

The results of the analyses suggest a capacity of the airfield in the range of 9.6 to 18.7 MAP. However, it should be noted that the airport has handled more than 9.6 MAP in the past.

The existing terminal includes twenty air carrier gates with passenger loading bridges and six ground loading gates for commuter aircraft. Thirteen of the twenty gates with passenger loading bridges are ADG IV gates designed to accommodate the Boeing 757, and seven are ADG III gates. While the Boeing 757 is no longer being produced and will likely be retired from airline fleets in the coming years the next versions of typical ADG III aircraft, such as the Boeing 737 MAX 9 and the Airbus A321neo are planned to have approximately 185 seats, comparable with today's typical ADG IV aircraft. Based on the estimated maximum number of operations per gate, average seat capacity for different ADG, and load factors, the existing terminal would have a capacity of approximately 16 MAP.

John Wayne Airport is currently subject to a court sanctioned settlement agreement. The agreement limits the airport to 12.5 MAP (subject to certain conditions) and remains in effect through 2030. However, the Orange County Board of Supervisors has adopted the limit imposed by the settlement agreement, so further action by the Board of Supervisors would be required to modify this limit, even after 2030. Therefore, the limit of 12.5 MAP at John Wayne Airport is considered to extend through the analysis period of the 2016-2040 RTP/SCS. **TABLE 2** summarizes the capacity constraints at the four constrained urban airports.

FORECAST AIR PASSENGER ALLOCATION SCENARIOS

Since there are a number of different paths along which airport development in the region might proceed, air passenger demand allocations were developed for the region's airports under several three scenarios representing different conditions: a scenario with no constraints on airport capacity, a scenario with a relatively high degree of regionalization of air travel demand, and a scenario with a relatively low degree of regionalization of demand sets of constraints. All airport allocation scenarios incorporate the overall forecast regional air passenger demand of 136.2 MAP in 2040; they differ with respect to how the total demand is spread across the region's airports. The initial scenario represents the unconstrained demand case, i.e., where passenger traffic at the airport can develop unimpeded and is not hindered by any physical capacity constraints or policy constraints. This scenario constitutes a future baseline from which alternative scenarios incorporating various constraints can be developed. The airport allocations in the unconstrained scenario are shown in the third column of **TABLE 3**.

In the unconstrained scenario, the 2040 demand at Los Angeles International Airport and John Wayne Airport exceeds the identified capacities of those airports, and the demand at Long Beach Airport is at the airport's identified capacity. Therefore, since the identified capacity of LAX spans a large range, two alternative scenarios were analyzed that differ

with respect to the share of demand that is shifted to other airports in the region. In the "Less Regionalization" scenario, LAX is assumed to operate at the high end of its identified capacity, and all other airports can accommodate up to their identified capacities. In addition, it is assumed that all airports in the region capable of handling passenger traffic identify a market niche of at least 200,000 annual passengers (0.2 MAP). The airport allocations in the "Less Regionalization" scenario are shown in the fourth column of **TABLE 3** .

In the "More Regionalization" scenario, LAX is assumed to operate at the low end of its identified capacity, and all other airports can accommodate up to their identified capacities. In addition, it is again assumed that all airports in the region capable of handling passenger traffic identify a market niche of at least 0.2 MAP. The airport allocations in the "More Regionalization" scenario are shown in the last column of **TABLE 3**.

While the "Less Regionalization" and "More Regionalization" scenarios shown in Table 3 were developed based on a range of physical capacities for LAX, many other factors will determine what level of demand each airport in the region will actually serve in 2040. Actions taken by policy makers at multiple levels in the SCAG region can influence the direction of the development of the region's aviation infrastructure. SCAG's Transportation Committee was presented with the Urbanized and Constrained Airport Capacity Analysis,[1] reviewed various scenarios and adopted the forecast ranges shown in the second column of **TABLE 3** on August 6, 2015. In addition, the Transportation Committee approved the total regional demand of 136.2 MAP, which represents the middle of the range for the airports that are assigned ranges. The high end of the range represents approximately a 10 percent increase to 149 MAP; the low end of the range represents a 10 percent decrease to 123 MAP.

One of the factors that will influence the direction of the development of the region's aviation infrastructure is investment in ground access infrastructure, which is discussed in the following section.

AIRPORT GROUND ACCESS

The ground access network serving the region's airports is critical to both the aviation system and the ground transportation system. Passengers' choice of airports is based in part on the travel time to the airport and the convenience of access, so facilitating airport access is essential to the efficient functioning of the aviation system. In addition, airport related ground trips can contribute to local congestion in the vicinity of the airports.

TABLE 3 2040 Airport Demand Forecast Scenarios (MAP, Million Annual Passengers)

Airport	Adopted	Unconstrained	Less Regionalization	More Regionalization
Total	136.2	136.2	136.2	136.2
BUR	7.3	6.3	7.3	7.3
IPL	0.2	0.2	0.2	0.2
LAX	82.9 - 96.6	100.7	96.6	82.9
LGB	5.0	5.0	5.0	5.0
ONT	11.0 -19.0	7.2	10.1	20.0
OXR	0.2	—	0.2	0.2
PMD	0.5 - 2.5	—	0.5	2.5
PSP	3.7	3.0	3.2	3.7
RIV	0.2	—	0.2	0.2
SBD	0.2 - 1.5	—	0.2	1.5
SNA	12.5	13.8	12.5	12.5
VCV	0.2	—	0.2	0.2

For airports with existing service passenger preference was based on historic passenger enplanements. These factors are combined into an overall passenger preference score that represent the attractiveness of each airport to travelers from each sub region.

The individual scores of each decision factor are combined into an overall score for each airport. Based on the overall score that each airport received for a particular airport, the amount of traffic that each region generates is allocated proportionally to each airport. The airport scores are calibrated until the outcome for each airport matches the actual passenger numbers of 2012. Finally, the results are validated by comparing them with passenger surveys, where available, of the origin of a sample set of passengers.
By applying this allocation mechanism to the passenger forecast developed for the entire region, passenger traffic can be distributed over the individual airports through 2040.

The resulting allocations represent the unconstrained demand case, i.e., where passenger traffic at each airport can develop unimpeded and is not hindered by any physical capacity constraints or policy constraints. In reality, however, a number of airports in the region will face capacity constraints within the forecast horizon. Since there are a number of different paths along which airport development might proceed as a result of different constraints, the capacity restrictions are input to the scenario development described in the next section.

CAPACITY CONSTRAINTS

Four of the commercial airports in urban areas of the region face physical or policy constraints that may limit their capacity to accommodate increases in demand by 2040. Therefore, these constraints were analyzed to develop a range of plausible scenarios for the development of air traffic allocation in the region. The airports at which constraints were analyzed are as follows:

- Burbank Bob Hope Airport
- Los Angeles International Airport
- Long Beach Airport
- John Wayne Airport

At each airport, planning-level analyses of the capacities of the airfield and the terminals were conducted. The long-term configurations of the airfield and terminal at each airport were identified from Airport Master Plans and similar studies. Policy constraints were also reviewed. The overall airport capacity is the minimum of the constraints imposed by the airfield, the terminal, and policy considerations.

The following methodologies were used for the review of the airfield and terminal capacity limits:

AIRFIELD CAPACITY: Based on the ultimate airport layout plan from each airport with the feasible ultimate runway configuration, the hourly capacity and annual service volume (ASV) of the airfield were estimated in terms of aircraft operations utilizing processes and formulas prescribed in FAA Advisory Circular 150/5060-5, "Airport Capacity and Delay." The percentage of commercial operations, load factor and seating capacity were then estimated from historical data and anticipated future trends. The ASV, percentage of commercial operations, and occupied seats per plane yield the estimated maximum annual passenger volume.

TERMINAL CAPACITY: Based on the ultimate airport layout plan from each airport, the feasible ultimate terminal gate (active and remote) configuration was identified. Historic gate utilization data was analyzed (e.g., design day schedule and gate chart, average number of turns per gate, fleet mix, seating capacity) to estimate the maximum gate capacity by maximizing the usage of each gate in the ultimate terminal layout plan.

A series of sensitivity analyses were conducted around the airfield and terminal capacities. In these sensitivity analyses, input assumptions were varied to develop a range of possible capacity limits for each airport.

The following sections summarize the analysis at each of the four constrained urban airports.

BURBANK BOB HOPE AIRPORT

Burbank Airport staff reported that the airport's airfield was limited to a practical capacity of 50 operations per hour based on the runway configuration and airspace conflicts with Van Nuys Airport to the west. In recent years, 50 percent of operations have been commercial operations, 75 percent of which have been scheduled air carriers. Based on historic load factors, these conditions yield an airfield capacity of approximately 7.3 MAP. Sensitivity analyses varying the mix of operations and load factors produced some scenarios with higher ASV and airfield capacity, but 7.3 MAP was the most reasonable estimate of airfield capacity based on their knowledge of the operations of the airport.

The existing airport terminal includes 14 air carrier gates. A proposed replacement terminal now in the planning stages would also have 14 gates. All 14 gates of the existing and proposed replacement terminals are designated for airplane design group (ADG) III aircraft, such as a Boeing 737. Since the airport uses ramps and stairways to load from the front and the back of aircraft, airport staff indicated that each gate can handle up to 15 arrivals and departures per day. Based on the anticipated use of larger aircraft within ADG III in the future, the 14-gate terminal arrangement would have a maximum capacity of approximately 12 MAP.

Burbank Airport currently imposes a voluntary nighttime curfew. However, it is not legally

enforceable and does not affect the overall capacity of the airport. Therefore, the overall capacity of Burbank Airport is 7.3 MAP.

LOS ANGELES INTERNATIONAL AIRPORT (LAX)

LAX has a complex runway system that can be utilized in several alternative configurations. The runway system consists of two sets of dual parallel runways. The north runway complex consists of Runways 6L-24R (8,925 feet long and 150 feet wide), and 6R-24L (10,285 feet long and 150 feet wide). There is 700 feet runway centerline-to-centerline separation between the north complex runways. The close separation of the two parallel north runways precludes independent operations during weather conditions where cloud ceilings are less than 1,000 feet and visibility is less than 3 miles. Each end of Runways 6R-24L and 6L-24R is equipped with Category I instrument landing systems. Runway 6R-24L is primarily used for departing aircraft, and Runway 6L-24R is primarily used for arriving aircraft.

The south runway complex consists of Runways 7L-25R (12,091 feet long and 150 feet wide), and 7R-25L (11,095 feet long and 200 feet wide). The separation between these two runways is 800 feet. Each end of Runway 7L-25R and Runway 7R is equipped with Category I instrument landing systems. Runway 25L is equipped with a Category IIIB instrument landing system. Runway 7L-25R is used primarily for departing aircraft. Runway 7R-25L is used primarily for arriving aircraft. The separation between runway 6R-24L and runway 7L-25R is more than 4,500 feet, which allows for independent operations.

The LAX airfield capacity was estimated based on the runway configuration as described in the LAX Specific Plan Amendment Study (SPAS), which identified four basic runway operating configurations:

- Visual flight rules (VFR) with visual approaches – West Flow (currently occurs 69.2 percent of the time)
- VFR with simultaneous instrument landing (ILS) approaches – West Flow (occurs 24.6 percent of the time)
- Instrument meteorological conditions (IMC)/Instrument flight rules (IFR) with instrument approaches – West Flow (occurs 4.1 percent of the time)
- VFR with simultaneous ILS approaches – East Flow (occurs 2.1 percent of the time)

The analysis of LAX's airfield capacity included estimation of hourly capacity and ASV from six sensitivity tests that varied in their assumptions about the percentage of time that the runway system is operated in each of the configurations described above, and based on airside simulations from previous studies as well as the FAA Airport Capacity Benchmark Report 2004. The range of sensitivity tests was then applied to three scenarios that varied in terms of the percentage of aircraft operations that would be by scheduled carriers, commuter carriers, and charter carriers, using aircraft of different sizes and with varying load factors. Each scenario was then subjected to six sensitivity tests that varied in their assumptions about the percentage of time that the runway system is operated in each of the configurations described above. The scenarios and sensitivity tests yielded a range of airfield capacities from 82.9 MAP to 96.6 MAP. This range is not a projection of demand for a future year, but an estimate of how many passengers the airfield (according to approved plans) could accommodate.

The LAX Master Plan and SPAS include a limit of a total of 153 gates at all terminals at LAX. However, in different scenarios, some gates may be designed for different airplane design group classifications. In addition, gates that are used for larger design groups will be able to handle fewer arrivals and departures each day. Therefore, a variety of terminal configurations were analyzed that varied with regard to their assumptions about the distribution of gate designs. The resulting estimates of the overall terminal capacity range from 85 to 104 MAP.

LAX is subject to a court sanctioned settlement agreement until 2020. Consistent with that settlement agreement, the SPAS was prepared to "plan for the modernization and improvement of LAX in a manner that is designed for a practical capacity of 78.9" MAP. After 2020, barring further court action, there is no enforceable cap on the number of gates or total annual passenger volume at LAX. Therefore, the capacity of LAX is in the range of 82.9 MAP to 96.6 MAP, limited by the airfield, based on the runway configuration described above and as in the SPAS. Alternative runway configurations (e.g., Alternate A or B in the LAX Master Plan) could yield higher airfield capacities.

LONG BEACH AIRPORT

Long Beach Airport has two sets of parallel runways forming a square and a fifth, diagonal runway crossing all four of the other runways. However, only the diagonal runway (runway 12/30) is used for commercial operations. Therefore, the estimate of airfield capacity in terms of annual passenger volume was based on a one-runway system for commercial operations. A series of scenarios crossed with sensitivity tests varying in assumptions about fleet mix and runway operations was conducted for Long Beach Airport, similar to the analyses conducted for the other airports.

Long Beach Airport, however, is subject to a noise compatibility ordinance that in practice limits the airport to 41 commercial and 25 commuter departures per day. (The 41 commercial flight limit may only be exceeded if the City of Long Beach determines that the additional flights will not exceed the "noise budget" limits based on the baseline year of 1989-90.) A commuter flight is defined as one completed by an airplane with a maximum take-off weight of less than 75,000 pounds. Based on the anticipated use of larger aircraft within

BurbankBus has recently begun operating all-day bus service between the North Hollywood Metro Red Line Station and the airport, utilizing the RITC. The North Hollywood Station provides connections to the Metro rail system via the Red Line to Union Station and the Metro Orange Line, a dedicated BRT right-of-way servicing the San Fernando Valley.

TABLE 4 provides a detailed list of the ground access improvements at Burbank Airport completed since the 2012 RTP/SCS, those currently in design or under construction, airport-related ground access improvements included in the 2016 RTP/SCS, and airport-related ground access improvements included in the 2015 FTIP.

IMPERIAL COUNTY AIRPORT (IPL)

Imperial County Airport is located on Airport Road at Imperial Avenue (State Route 86), which is one of the main north-south throughways in the area. Regional highway access from the east and west utilizes I-8, which is located four miles to the south. Currently, one rental car company offers services at the airport terminal. There is no public transit service to the airport, although a private company operates an on-demand shuttle bus from the surrounding area.

TABLE 5 IPL Ground Access Projects

IPL Ground Access Projects
Recently Completed Ground Access Projects
None
Ground Access Projects Currently Under Construction (or in Design)
None
Recent and On-going Ground Access Studies
None
2016 RTP Ground Access Projects
6120002: Reconstruct I-8 interchange at Imperial Avenue
2015 FTIP Ground Access Projects
0515: Reconstruct I-8 interchange at Imperial Avenue

TABLE 5 provides a detailed list of the ground access improvements at Imperial County Airport completed since the 2012 RTP/SCS, those currently in design or under construction, airport-related ground access improvements included in the 2016 RTP/SCS, and airport-related ground access improvements included in the 2015 FTIP.

LOS ANGELES INTERNATIONAL AIRPORT (LAX)

Los Angeles International Airport (LAX) is located in southwestern Los Angeles County in the neighborhood of Westchester. Regional freeway access is provided by I-405 to the east and I-105 to the south. Vehicles arriving from the north and south utilize I-405 or Sepulveda Boulevard, and drivers arriving from the east use I-105 or Century Boulevard. World Way is the internal circulation roadway around the passenger terminals and has a lower level for arriving passengers and an upper level for departing passengers.

LAX is owned and operated by Los Angeles World Airports (LAWA), a proprietary department of the City of Los Angeles. LAWA operates LAX FlyAway, which provides non-stop bus service between each of the LAX terminals and seven locations: Van Nuys Airport, Union Station, Westwood, Hollywood, Santa Monica, Orange Line and Long Beach. In 2013, ridership on the two most used FlyAway routes, Van Nuys and Union Station, was 890,740 and 508,019 passengers, respectively. For longer distance bus travel from the airport, numerous private operators provide regularly scheduled bus service to LAX from the Antelope Valley, Bakersfield, the Central Coast, Santa Barbara and Ventura County. Two private shared-ride shuttle services are authorized to operate at LAX and serve the entire SCAG region.

LAX operates three shuttle routes on World Way. Route A circulates around the airport to provide passengers connections between terminals. Routes C and G have a stop within the central terminal area, with Route C connecting to the LAX-operated parking Lot C at the intersection of 96th Street and Sepulveda Boulevard, and Route G transporting passengers to and from the Metro Green Line Aviation Station. In addition to the LAX-operated Lot C, many other parking lots and structures are available in the surrounding neighborhood, and many hotels in the area and privately operated parking lots offer their customers courtesy shuttles to and from the passenger terminals.

Public bus services operated by Metro, Culver City Bus Lines, Santa Monica Big Blue Bus and Torrance Transit are available at the Metro Bus Center by connecting in Lot C using the LAX Shuttle Route C and to connect to their respective coverage areas. The Metro Green Line Aviation Station is the nearest urban rail line, nearly two miles to the southeast of the terminals and accessible using the LAX Shuttle Route G.

All rental car facilities are currently located off-site and are provided by about 40 companies.

In 2012, more than 200,000 air passengers arrived or departed from the region's airports each day. By 2040, this number is expected to increase to more than 330,000. About half of all air passengers in the region are picked up or dropped off at the airport by a friend or relative. Each end of these pick-up/drop-off air trips results in two ground trips: one to the airport followed by one returning from the airport. Therefore, encouraging the use of transit or other shared-ride modes of transportation to the region's airports is especially effective in reducing automobile trips.

SCAG and its regional partners have brought a new focus on improving ground access to the region's airports in recent years. In July 2012, the Metro Board directed its staff to develop a Regional Airport Connectivity Plan (RACP) that addresses transit connections to five Southern California airports: Burbank Bob Hope (BUR), Long Beach (LGB), LA/Ontario International (ONT), Los Angeles International (LAX) and LA/Palmdale Regional (PMD). The RACP was completed in January 2013. In November 2014, San Bernardino Association of Governments (SANBAG) completed its Ontario Airport Rail Access Study. SCAG is currently initiating an L.A. and San Bernardino Inter-County Transit and Rail Connectivity Study, which will continue these prior planning efforts undertaken by Metro and SANBAG.

Airport operators have also undertaken their own initiatives, ranging from planning through implementation, to improve ground access at their facilities. The City of Burbank and the Burbank-Glendale-Pasadena Airport Authority conducted the Bob Hope Airport Area Ground Transportation and Land Use Study to analyze potential transportation and related land use development in the Bob Hope Airport area.

Los Angeles World Airports (LAWA) has been working closely with Metro to improve transit access to LAX. The agency is currently in the environmental review phase of the LAX Landside Access Modernization Program, a series of improvements including an Automated People Mover, a consolidated rental car facility, and two intermodal transportation facilities, one of which will provide direct access to the Metro Crenshaw Line, which is currently under construction.

To continue the current high level of airport ground access planning underway in the region, on October 8, 2015, SCAG's Transportation Committee adopted a conceptual framework for regional aviation ground access to support these ongoing efforts, based on the following principles:

- Advance regionalization of air travel demand
- Continue to support regional and inter-regional projects that facilitate airport ground access (e.g., High-Speed Train, High Desert Corridor)
- Support on-going local planning efforts by
  - Airport operators
  - County Transportation Commissions
  - Local jurisdictions
- Encourage development and use of transit access to the region's airports
- Encourage use of modes with high average vehicle occupancy (AVO)
- Discourage use of modes that require "deadhead" trips to/from airports (a deadhead trip is a vehicle trip with no traveling passenger in the vehicle, such as when a parent drives an otherwise empty car to an airport to pick up a college student arriving by air for Thanksgiving vacation.)

The following sections describe the recent and planned ground access studies and improvements at each of the region's airports.

BURBANK AIRPORT (BUR)

Burbank Airport is located on Hollywood Way in the City of Burbank, south and west of Interstate 5. Passenger access to the terminals is currently primarily via Hollywood Way at Thornton Avenue and secondarily via Empire Avenue, west of Hollywood Way. The airport is currently preparing an Environmental Impact Report for the development of a replacement terminal. Vehicular access is expected to remain via Hollywood Way, although it may be relocated to a different location along the roadway. An arterial roadway network surrounds the airport, providing connections from residential areas and to destinations throughout Burbank, North Hollywood, Los Angeles and beyond. The Metrolink Ventura line tracks are located immediately south of the airport, and the Antelope Valley line tracks are located immediately north of the airport. The California High Speed Rail Authority is also planning for a station at Burbank Airport in the future.

Regional freeway access to Burbank Airport is primarily provided by I-5 and SR 134. Regional traffic from the north uses the Hollywood Way interchange on I-5. The I-5 North Improvement Project, currently under construction, will improve regional access from the south with the construction of a new interchange at Empire Avenue.

Burbank Airport is the only airport in the region with a direct rail-to-terminal connection, via the recently completed Regional Intermodal Transportation Center (RITC). The RITC is located on airport property just northwest of the Hollywood Way/Empire Avenue intersection. An elevated moving walkway transports people between the RITC and the airport terminals. The RITC serves multiple modes, including public parking, a consolidated rental car facility, regional bus service and bicycles, as well as commuter rail at the Metrolink Ventura line station. A pedestrian bridge connecting the Metrolink station to the RITC that is currently in design will further facilitate access between the train station and the airport. In addition, a second rail station is currently planned on the Metrolink Antelope Valley line.

TABLE 6 LAX Ground Access Projects

LAX Ground Access Projects
Recently Completed Ground Access Projects
Widen Arbor Vitae Street (Airport Boulevardd to La Cienega Boulevard)
I-405 Sepulveda Pass Improvements Project
Additional LAX FlyAway Service from Santa Monica, Hollywood, Orange Line and Long Beach
Ground Access Projects Currently Under Construction (or in Design)
Crenshaw/LAX Transit Corridor Project and expansion of regional rail connectivity (Expo/Green Lines)
Recent and On-going Ground Access Studies
I-105: Study report for interchange improvements at LAX Airport
LAX Landside Access Modernization Program
LAX Consolidated Rental Car Center (CONRAC) and long-term parking in Manchester Square
Intermodal Transportation Facility (ITF) in the vicinity of Lot C
Specific Plan Amendment Study
LAX Airport Metro Connector
Coastal Corridor Study
Green Line Extension to LAX
South Bay Metro Green Line Extension
Century Corridor Streetscape Plan

LAX Ground Access Projects
2016 RTP Ground Access Projects
1TR1020: New airport bus division (capital costs only)
1122003: Consolidated Rental Car Facility (ConRAC)
1122002: Intermodal Transportation Facilities (ITFs)
1122001: Automated People Mover System (APM)
1TR0101: New Light Rail Station & Consolidated Bus facilities
LA0D198: Crenshaw/LAX Transit Corridor Project
LA0D332: I-405 from La Tijera Boulevard to Jefferson Boulevard, add auxiliary lanes
2015 FTIP Ground Access Projects
LA0D332: I-405 from La Tijera Boulevard to Jefferson Boulevard, add auxiliary lanes
LAE3764: ITS and intersection improvements in and near LAX Airport
LA0F073: Projects within and near LAX to eliminate traffic bottlenecks
LA0G1161: Crenshaw/LAX accommodations near 96th Street/Aviation Boulevard
LA0G1162: Airport Metro Connector
LA0F073: Projects within and near LAX Airport to eliminate traffic bottlenecks

TABLE 4 BUR Ground Access Projects

BUR Ground Access Projects
Recently Completed Ground Access Projects
Regional Intermodal Transportation Center (Empire Area Transit Center)
Install traffic signal at North Avon Street and Empire Avenue
Ground Access Projects Currently Under Construction (or in Design)
I-5 Empire Project
I-5 North Improvement Project: Add HOV lanes on I-5 (from SR-134 to SR-170)
New Antelope Valley Metrolink Line Station at Hollywood Way/San Fernando Road
Burbank Bob Hope Airport Station Pedestrian Grade Separation and Regional Intermodal Transportation Center Connection
Recent and On-going Ground Access Studies
Burbank-Glendale-Pasadena Airport Intermodal Ground Access Link Feasibility Study
Vanowen/Empire/Clybourn Railroad Crossing Grade Separation Study Project
BUR Terminal Upgrade Environmental Impact Analysis
2016 RTP Ground Access Projects
1120004: Metro Red Line Extension to BUR
LA000358: Route 5 from Route 134 to Route 170, add HOV Lanes.
2015 FTIP Ground Access Projects
LA000358: I-5 North Improvement Project: Route 5 from Route 134 to Route 170, add HOV lanes.
LAE0726: Vanowen/Empire/Clybourn Railroad Crossing Grade Separation Study Project
LA000789: Burbank-Glendale-Pasadena Airport Intermodal Ground Access Link Feasibility Study

TABLE 4 BUR Ground Access Projects: Continued

BUR Ground Access Projects
LA000789A: Burbank-Glendale-Pasadena Airport Intermodal Ground Access Link
LAE0396: Construction of Empire Area Transit Center near BUR
LA0G1049: Burbank Bob Hope Airport Station Pedestrian Grade Separation and Regional Intermodal Transportation Center Connection
LAF5701: Burbank Traveler Information and Wayfinding System

TABLE 8 ONT Ground Access Projects: Continued

ONT Ground Access Projects
4A07233: Widen Mission Boulevard from Benson to Milliken Avenue from 4 to 6 lanes
4A07317: Construct bridge on Mission Boulevard over Cucamonga Creek and widen from 4 to 6 lanes
4A07215: Construct bridge on Mission Boulevard over West Cucamonga Creek and widen from 4 to 6 lanes
4A07266: Widen Philadelphia Street from Campus Avenue to 750' e/o Grove Avenue from 2 to 4 lanes
4A07138: Widen Philadelphia Street from Vineyard Avenue to Cucamonga Creek from 2 to 4 lanes, including bridge over Cucamonga Creek
4A07267: Construct bridge on Riverside Drive over Cucamonga Creek and widen from 4 to 6 lanes
4A01222: Widen Vineyard Avenue from 4th Street to I-10 from 4 to 6 lanes
2002160-2002160: I-10 at Grove Avenue interchange and Grove Avenue corridor
4160002: Widen Interchange for I-10 @ Vineyard Avenue from 4 to 6 lanes, widen on/off ramps from 2 to 4 lanes
200803: I-10 at Vineyard Avenue interchange: widening from 4-6 lanes and widen on and off ramps to two lanes, intersection improvements and enhance existing landscaping
200602-200602: SR 60 and Vineyard Avenue interchange reconstruction-lengthen bridge to accommodate Vineyard Avenue widening and ramp widening 4-6 lanes
200604: SR 60 at Grove Avenue interchange reconstruction and Grove Avenue +/- 300 ft. n/s of SR 60-widen from 4-6 lanes
4M07017: SR 60 at Archibald Avenue widen on and off ramps (2-3 lanes each way)
416009: Interchange reconstruction for SR 60 at Grove Avenue
4160010: Interchange reconstruction for SR 60 at Vineyard Avenue
4122002: Double tracking of Metrolink San Bernardino Line between CP Central and CP Archibald in San Bernardino County
4160048: Direct Shuttle bus connection from Rancho Cucamonga Metrolink Station to Ontario Airport
4160049: Passenger Rail Service from San Bernardino to Metrolink Line to Ontario Airport
4120004-20159902: I-10 corridor express lane widening (phase 1)

ONT Ground Access Projects
4120005-20159903: I-10 corridor express lane widening (phase 2)
2015 FTIP Ground Access Projects
2002160: I-10 at Grove Avenue and 4th Street: relocate interchange from 4th Street to Grove Avenue. Widen the existing 4th Street undercrossing (2-4 lanes) to match rest of 4th Street. Concurrent project with Grove Avenue widening (20150201)
20150201: Grove Avenue Corridor: Widen Grove Avenue from I-10 to Airport Drive (4-6 lanes). Concurrent with I-10/Grove Avenue Interchange Project (2002160)
200803: I-10 at Vineyard Avenue interchange. Widen interchange from 4-6 lanes and widen on and off ramps to two lanes, intersection improvements and enhance existing landscaping.
200602: SR 60 and Vineyard Avenue interchange reconstruction-lengthen bridge to accommodate Vineyard Avenue widening and ramp widening 4-6 lanes
200604: SR60 at Grove Avenue interchange reconstruction and Grove Avenue +/-300 ft. n/s of SR 60-widen from 4-6 lanes
201132: SR-60 at Archibald Avenue widen on and off ramps (2-3 lanes each way); add additional left turn pockets from Archibald to SR-60 on ramps (non-capacity enhancing along Archibald)
200602: SR 60 and Vineyard Avenue interchange reconstruction-lengthen bridge to accommodate Vineyard Avenue widening and ramp widening 4-6 lanes
200805: North Vineyard Avenue grade separation - between Holt Boulevard and Airport Drive building railroad bridge flyover-no lanes added to arterials. The grade separation is at the UPRR Alhambra Line
200405: South Milliken Avenue grade separation - on Milliken from UPR to north of Mission Boulevard railroad grade separation-construct o/c/u/c at RR-realignment of STS to meet overcrossing & intersection improvements

Eleven of these companies are permitted to operate courtesy shuttles between the terminals and their facilities. Taxicabs are available curbside at each terminal outside the baggage claim area at the yellow taxi signs. In December, 2015 LAX began to allow Transportation Networking Companies (TNC's) such as Uber and Lyft to pick up and drop off passengers at designated points at the airport.

In December 2014, LAWA's Board of Airport Commissioners approved a plan to overhaul and modernize LAX's ground access and transportation connections for arriving and departing passengers. The approved program includes the LAX Train (Automated People Mover System), Intermodal Transportation Facilities (ITF), Consolidated Rent-A-Car Center (CONRAC), central terminal area improvements, and connection with the Metro Crenshaw Line, which is under construction. The CONRAC will consolidate the numerous off-site rental car facilities in the surrounding area into one convenient location 1.5-miles east of LAX and adjacent to I-405 for convenient regional highway access. Two ITFs are included in the program offering airport travelers locations for parking, passenger pick-up and drop off, and flight check-in outside the terminal and away from the congested World Way roadway within LAX. The eastern ITF will include Metro facilities to connect with Metro's planned 96th Street/Aviation Boulevard Station serving the under-construction Metro Crenshaw/LAX Transit Project and existing Metro Green Line as well as a bus plaza for Metro and municipal buses. The LAX Train will be an elevated automated people mover system with six stations connecting the CONRAC, both ITFs, and Metro facilities to the LAX passenger terminals by connecting into an upgraded central terminal area. The environmental review process for this project began in 2015 and construction is expected to begin in 2017.

TABLE 6 provides a detailed list of the ground access improvements at LAX completed since the 2012 RTP/SCS, those currently in design or under construction, airport-related ground access improvements included in the 2016 RTP/SCS, and airport-related ground access improvements included in the 2015 FTIP.

LONG BEACH AIRPORT (LGB)

Long Beach Airport (LGB) is located on Lakewood Boulevard north of I-405 in the City of Long Beach. The airport has one terminal building with two concourses (north and south) and eleven total gates. In December 2012, construction was completed on renovations to the terminal to expand and modernize its amenities and plan for an expected increased passenger demand.

Regional automobile traffic arrives via I-405 and Lakewood Boulevard. Donald Douglas Drive is an internal airport roadway that circles the Airport Ground Transportation Center and provides access to the terminals. The Airport Ground Transportation Center includes a recently completed five-story parking garage with over 5,000 spaces and also houses six rental car companies. A taxi stand is located on Donald Douglas Drive just outside the terminal. In addition, 28 shuttle providers are currently authorized to pick passengers up on airport property.

Transit access is provided by bus on Long Beach Transit Authority's Routes 102, 104, 111 and 176 utilizing the Airport Ground Transportation Center.

TABLE 7 provides a detailed list of the ground access improvements at Long Beach Airport completed since the 2012 RTP/SCS, those currently in design or under construction, airport-related ground access improvements included in the 2016 RTP/SCS, and airport-related ground access improvements included in the 2015 FTIP.

TABLE 7 LGB Ground Access Projects

LGB Ground Access Projects
Recently Completed Ground Access Projects
Long Beach Airport Access: Spring Street and Lakewood Boulevard tunnel improvements
Long Beach Airport Terminal Area Improvement Project
Ground Access Projects Currently Under Construction (or in Design)
None
Recent and On-going Ground Access Studies
None
2016 RTP Ground Access Projects
None
2015 FTIP Ground Access Projects
None

TABLE 8 provides a detailed list of the ground access improvements at LA/Ontario International Airport completed since the 2012 RTP/SCS, those currently in design or under construction, airport-related ground access improvements included in the 2016 RTP/SCS, and airport-related ground access improvements included in the 2015 FTIP.

PALMDALE REGIONAL AIRPORT (PMD)

Palmdale Regional Airport is in the City of Palmdale, about 60 miles north of downtown Los Angeles. Since 2013, it has been managed by the Palmdale Airport Authority. The Airport Authority has the ability to use both Department of Defense owned runways. The passenger terminal is located at the southwest corner of the airport, on Avenue P.

Regional access to the airport is provided by SR 14, about three miles west of the airport. As Palmdale Airport currently has no scheduled commercial air service, there are no rental car facilities at the airport, and no private operators provide ground transportation services to the airport.

The Palmdale Transportation Center, including the Palmdale Metrolink Station on the Metrolink Antelope Valley Line, is located about two miles southwest of the airport. The Transportation Center currently provides connections with the local public transit provider, Antelope Valley Transit Authority (AVTA). No AVTA routes currently serve the airport. The Palmdale Transportation Center is the proposed site of a future California High-Speed Rail station.

TABLE 9 provides a detailed list of the ground access improvements Palmdale Regional Airport completed since the 2012 RTP/SCS, those currently in design or under construction, airport-related ground access improvements included in the 2016 RTP/SCS, and airport-related ground access improvements included in the 2015 FTIP.

OXNARD AIRPORT (OXR)

Oxnard Airport is located in the northwest part of the City of Oxnard in Ventura County. Regional highway access is from SR 1 to the north and south, or US 101 to the north and east. Ground access to the passenger terminal is provided by Fifth Street. No scheduled passenger service has been offered at the airport since 2010.

Four rental car companies operate from the airport terminal. Additionally, the Ventura County Airporter Shuttle operates eight daily roundtrips between OXR and LAX.

Gold Coast Transit is the municipal transit provider, and bus Route 19 has a stop on Fifth Street near the terminal. The Oxnard Transportation Center is located about two miles east

TABLE 9 PMD Ground Access Projects

PMD Ground Access Projects
Recently Completed Ground Access Projects
None
Ground Access Projects Currently Under Construction (or in Design)
Rancho Vista Boulevard grade separation
Recent and On-going Ground Access Studies
Transit Oriented Development Project near Palmdale Transit Center
Avenue Q Feasibility Study
High Desert Corridor/P-8 Freeway
2016 RTP Ground Access Projects
LA962212: Route 138: In Palmdale @ Avenue P-8 from Route 14 to 100th Street - Acquisition of ROW for future Route 138
1TDL04: Expansion and Improvement to existing Transit Center in the City of Palmdale
2015 FTIP Ground Access Projects
LAF3403: Palmdale Transportation Center - Platform Extension
LA0G897: SR 138/14: Widening from Rancho Vista Boulevard (RVB) to Palmdale Boulevard
LAF1104: Rancho Vista Boulevard (RVB) Grade Separation at Sierra Highway/UPRR/Metrolink RR Crossing
LAF1104B: Phase 2-Construct a railroad grade separation of Rancho Vista Boulevard at both Sierra Highway and the double-track at-grade crossing of the Southern California Regional Rail Authority (SCRRA) Metro-link and Union Pacific Railroad (UPRR) tracks

ONTARIO INTERNATIONAL AIRPORT (ONT)

Ontario International Airport is located just south of I-10 in the City of Ontario, about 35 miles east of downtown Los Angeles. Two passenger terminal buildings are located along the northern side of the airport along Terminal Way. Los Angeles World Airports (LAWA) owns and operates the airport today. LAWA has agreed to terms and conditions for the transfer of the airport in the coming months to a new airport sponsor, the Ontario International Airport Authority (OIAA) , pending review and approval by the Federal Aviation Administration (FAA).

The airport is located between two major east-west highway corridors within the SCAG region, I-10 and SR 60. Regional access is generally provided by these freeways, with regional north-south access provided by I-15 about two miles to the east. The Archibald Avenue interchange on I-10 is the primary access point to Terminal Way, which circles a large surface parking lot and provides drop-off/pick-up access to the passenger terminals. Additional private airport parking is provided on Airport Drive, just east of the airport.

A Consolidated Rental Car Facility (ConRAC) is located in the northeast corner of the airport, near the intersection of Airport Drive and Haven Avenue, and serves eight on-airport rental car companies. Three additional off-airport rental car companies also serve the airport. A courtesy shuttle operated by the airport provides service between the passenger terminals, the long-term parking lot, and the ConRAC. Taxicab service can be picked up curbside outside the baggage claim area. A private shared-ride shuttle operator offers door-to-door shared-ride services from the terminals on both on an advanced reservation and walk up basis.

Two bus routes operated by OmniTrans have stops that serve the airport. Routes 81 and 82 have stops at the intersection of Airport Drive and Haven Avenue, where passengers can transfer to the airport courtesy shuttle to be transported to the terminals.

No direct rail service currently operates to the airport. The East Ontario Metrolink Station, which serves the Metrolink Riverside Line, is located about two miles southeast of the airport terminals, but no direct transit connection is currently provided to the terminals. The California High Speed Rail Authority is also planning to have a station at Ontario International Airport.

The 2014 SANBAG Ontario Airport Rail Access Study examined six alternatives to connect Ontario Airport to the regional rail system. One of these alternatives is the Metro Gold Line Foothill Extension Phase 2C that would extend the eastern terminus of the Metro Gold Line to the airport. Phase 2B to Montclair is included in the Financially Constrained Project list in this RTP/SCS, but Phase 2C is currently not funded. A direct shuttle bus connection from the Rancho Cucamonga Metrolink Station is included in the project list for 2020, and a rail connection from Metrolink to the airport is included for 2040.

TABLE 8 ONT Ground Access Projects

ONT Ground Access Projects
Recently Completed Ground Access Projects
None
Ground Access Projects Currently Under Construction (or in Design)
North Vineyard Avenue Railroad Grade Separation at Holt Boulevard
Construct a Grade Separation at Milliken/Union Pacific LA Line
Recent and On-going Ground Access Studies
SANBAG Ontario Airport Rail Access Study
Gold Line LRT Foothill Extension
2016 RTP Ground Access Projects
4160023: Widen Archibald Avenue from Inland Empire Boulevard for 4 to 6 lanes
4160035: Widen Guasti Road from Holt Boulevard to Archibald Avenue from 2 to 4 lanes
4160063: Widen State Street from Bon View Avenue to Grove Avenue from 2 to 4 lanes
4120145: Spot widen Airport Drive from Rochester Avenue to Etiwanda Avenue from 2 to 4 lanes
200804: South Archibald Avenue grade separation (at Mission Boulevard).
4G0104/4G0112: Widen grade separation @ UPRR Alhambra/Los Angeles Lines from 2 to 4 lanes
4A07325: Construct bridge on Holt Boulevard over West Cucamonga Creek and widen from 4 to 6 lanes
4A01203: Widen Francis Street from Benson Avenue to Campus Avenue from 2 to 4 lanes
4A01210: Widen Holt Boulevard from Benson Avenue to Vineyard Avenue from 2 to 4 lanes
4A07327: Construct bridge on Holt Boulevard over Cucamonga Creek and widen from 4 to 6 lanes
4A01213: Widen Jurupa Street from Turner Avenue to Hofer Ranch Road from 2 to 6 lanes

TABLE 11 provides a detailed list of the ground access improvements Palm Springs International Airport completed since the 2012 RTP/SCS, those currently in design or under construction, airport-related ground access improvements included in the 2016 RTP/SCS, and airport-related ground access improvements included in the 2015 FTIP.

SAN BERNARDINO INTERNATIONAL AIRPORT (SBD)

San Bernardino International Airport (SBD) is located in the City of San Bernardino. The airport has domestic and international passenger terminals on the northwestern portion of the property but does not currently have scheduled passenger service. The international terminal has Federal Inspection Service (FIS) facilities. I-10 provides regional access from the east and west, and I-215 provides regional access from the north and south. SR 210 provides additional access from the northwest. Recent and ongoing improvements to I-215 through downtown San Bernardino and to the Tippecanoe Avenue interchange on I-10 have improved ground access to the airport. Local access to the airport facilities is provided by Tippecanoe Avenue and Third Street.

OmniTrans is the municipal public transit provider in San Bernardino County. Its Route 8 has a stop on Harry Shepard Boulevard at Del Rosa Drive, a quarter-mile from the terminal building entrances. There are no rental car facilities at the airport, and no private operators provide ground transportation services to the airport.

TABLE 12 SBD Ground Access Projects

SBD Ground Access Projects
Recently Completed Ground Access Projects
Construct a truck traffic access road to SBD Air Cargo Terminal at Perimeter Road
Construct a 4-lane bridge on Mountain View Avenue over the Santa Ana River
Ground Access Projects Currently Under Construction (or in Design)
Upgrade 5th St to a 4-lane major arterial and improve capacity at intersections
Tippecanoe Ave/Anderson Street Interchange with I-10 (Phase 2)

TABLE 12 SBD Ground Access Projects: Continued

SBD Ground Access Projects
Recent and On-going Ground Access Studies
Redlands Passenger Rail Project will have a station on Tippecanoe Avenue
Improve 3rd St near SBD
2016 RTP Ground Access Projects
200213: Widen 3rd St. from Palm Ave. to 5th St.
200852: Del Rosa Drive From 5th Street to 6th Street-Widen from 2 to 4 Lanes
4A07142: Tippecanoe Avenue From 3rd Street To 5th Street - Widen from 2-4 Lanes
SBD55031: Alabama Street From 3rd Street To South City Limits
4M01003-2011154: SR 210 At 5th St/Greenspot Rd; On and Off Ramps Widening; Add Lanes
200419: Alabama St widening - widen from 2-4 lanes from north city limits to 3,000 ft. north Palmetto
4A01237: Widen Alabama St from 2 to 4 lanes
4A07017: Widen Alabama St from Lugonia Ave to Barton Rd from 4 to 6 lanes
4A07042: Widen Alabama St from North Redlands City Limits to Palmetto Ave from 2 to 4 lanes
4A07184: Widen California St from Redlands Blvd to Palmetto Ave from 5 to 6 lanes
4A07255: Widen Lugonia Ave from California St to Tennesee St from 2 to 4 lanes
4A01246: Widen Lugonia Ave from Tenessee St to Orange St from 2 to 4 lanes
4A07154: Widen Palmetto Ave from California St to Alabama St from 2 to 4 lanes

of the airport and provides connections to additional Gold Coast Transit routes, as well as rail connections to Amtrak's Coast Starlight and Pacific Surfliner Routes, as well as Metrolink's Ventura County Line.

There are no recently planned or completed ground access projects at Oxnard Airport.

MARCH AIR RESERVE BASE (RIV)

March Air Reserve Base (RIV) is operated as a public-use airport under a Joint Use Agreement with the Air Force. It is located in unincorporated Riverside County between the cities of Riverside and Moreno Valley. A passenger terminal opened in 2013 to accommodate general aviation activities. Parking lots are located adjacent to the operations control tower and the passenger terminal. Currently, no on-site facilities for rental cars, taxicabs or shuttle services exist.

Regional access is provided by I-215, which runs in a north-south alignment directly west of the airport, and SR 60, which runs in an east-west alignment north of the airport. Ground access to airport facilities is provided by Cactus Avenue. Recent and planned improvements to Heacock Street and Harley Knox Boulevard will facilitate ground access to the airport, particularly for trucks.

The Moreno Valley/March Field Station on the Perris Valley Line extension of the Metrolink 91 Line is located near the entrance to the airport. Rail service is anticipated to begin in late 2015.

TABLE 10 provides a detailed list of the ground access improvements March Air Reserve

TABLE 10 RIV Ground Access Projects

RIV Ground Access Projects
Recent and On-going Ground Access Studies
None
2016 RTP Ground Access Projects
3A01WT049A: In the City of Moreno Valley - Widen Alessandro Boulevard between I-215 and Frederick Street from 4 to 6 lanes.
RIV071240-RIV071240: In the City of Moreno Valley - east bound Cactus Avenue widening between Veterans Way & Heacock Street

TABLE 10 RIV Ground Access Projects: Continued

I-215 North Project (Phase 3 of 3): Add HOV lane in each direction and WB auxiliary lane
3A04WT054: In the City of Moreno Valley - widen Heacock Street between Cactus Avenue and San Michele Road
3160037: Widen Heacock Street between Heacock Bridge Lateral A and Cactus Avenue
3A0801: In the City of Moreno Valley - Widen Heacock Street between San Michele Road and Harley Knox Boulevard
3A04WT068: Widen San Michele Road between Heacock Street and Indian Avenue
3M04WT017: Widen/reconstruct Heacock interchange, ramps, and channelization improvements.
RIV050533-RIV050533: At I-215/Cactus Avenue interchange
2015 FTIP Ground Access Projects
RIV080905: In the City Of Moreno Valley - Widen Alessandro Boulevard between I-215 and Frederick Steet
RIV071240: In the City Of Moreno Valley – E/B Cactus Avenue Widening between Veterans Way & Heacock Street
RIV080910: In the City of Moreno Valley - Widen Heacock Street between Cactus Avenue and San Michele Road
RIV080911: In the City Of Moreno Valley - Widen Heacock Street between San Michele Road and Harley Knox Boulevard
RIV050533: At I-215/Cactus Avenue Interchange: widen interchange
Recently Completed Ground Access Projects
I-215/Van Buren Boulevard Interchange Improvements
Ground Access Projects Currently Under Construction (or in Design)
Perris Valley Metrolink extension, including a March Field Station
Harley Knox Boulevard Improvements

TABLE 12 SBD Ground Access Projects: Continued

SBD Ground Access Projects
4A01281: Widen San Bernardino Ave from Alabama St to California St from 2 to 4 lanes
200609: Mt. View Widening/Extension Project- Widen S/B From 2-4 lanes- from Coulston to Riverview
4A07119: 5th Street from Sterling Ave to Victoria Ave Widen from 2-4 lanes
40M0701-201184: Sterling Ave from 3rd Street to 5th Street - Widen from 2-4 lanes
SBD41317: Mountain View Ave bridge at Mission Creek Channel - Widen roadway
4A07230: Widen 5th St from Pedley Rd to Tippecanoe Ave from 2 to 4 lanes
4A07292: Widen 5th St from Warm Creek (0.3 mi. east of Waterman) to Pedley Ave from 2 to 4 lanes
4A07081: Widen Coulston Ave Av from Tippecanoe Ave to Mountain View Ave from 2 to 4 lanes
4A07380: Widen Del Rosa Ave from Del Rosa Dr to San Bernardino City Limits from 2 to 4 lanes
4A07135: Widen Rialto Ave Av from Lena Rd to Tippecanoe Ave Av from 2 to 4 lanes
4A07178: Widen Rialto Ave from Sierra Way to Waterman Ave from 2 to 4 lanes
4A07152: Widen Tippecanoe Ave from Mill St to Harriman from 4 to 6 lanes
44810: I-10 Tippecanoe reconfigure Interchange and local road Improvements/Modifications
2015 FTIP Ground Access Projects
200213: On 3rd St. from Palm Ave. to 5th St. - Widen 3rd St. e/o Palm Ave. from 2 to 3 lanes
201180: Del Rosa Drive from 5th Street to 6th Street-Widen from 2 to 4 lanes
201182: Tippecanoe Avenue from 3rd Street to 5th Steet - Widen from 2-4 lanes
SBD55031: Alabama Street From 3rd Street To South City Limits - Widen From 2 To 3 S/B Lanes
2011154: SR 210 at 5th St/Greenspot Rd; On and off ramps widening; Add Lanes
201183: 5TH ST FROM TIPPECANOE AVE TO DEL ROSA DR – WIDEN FROM 2-4 LANES

TABLE 12 provides a detailed list of the ground access improvements San Bernardino International Airport completed since the 2012 RTP/SCS, those currently in design or under construction, airport-related ground access improvements included in the 2016 RTP/SCS, and airport-related ground access improvements included in the 2015 FTIP.

JOHN WAYNE ORANGE COUNTY AIRPORT (SNA)

John Wayne Orange County Airport is located in unincorporated Orange County, near the cities of Santa Ana, Irvine, Newport Beach and Costa Mesa. Three terminal buildings are located just off MacArthur Boulevard in the northeast corner of the airport along Airport Way.

John Wayne Airport sits in between multiple major highways, including I-405 to the north, SR 55 to the west and SR 73 to the south, that provide regional access to the airport. MacArthur Boulevard in Irvine connects directly to the airport facilities. Airport Way operates as the circulating roadway between the three terminals and other airport passenger facilities. Several parking garages are available in the main terminal area. An additional off-site parking lot is located on Main Street in Irvine, with a free shuttle to the terminal.

Most of the ground transportation facilities are located in the Ground Transportation Center (GTC), on the lower concourse level on Airport Way in the middle of the terminal buildings. The GTC contains transfers to buses, shuttles, taxicabs and eight on-site rental car providers. An additional fifteen off-site rental car companies are authorized to pick up passengers from the terminal and shuttle them to each company's personal facilities. As a major destination in the area, the Disneyland Resort operates an express shuttle for passengers that can be picked up at the GTC.

The local public transit service providers are the Orange County Transportation Authority (OCTA) and City of Irvine's Irvine Shuttle (iShuttle). OCTA bus Routes 76 and 212 directly serve the airport with a stop at the GTC on the lower level. The iShuttle's Route A operates between the GTC and the Tustin Metrolink Station about five miles to the northeast. The Tustin Metrolink Station provides connections with trains on both the Orange County and Inland Empire Metrolink lines, as well as other OCTA bus routes and iShuttle Route B.

Base completed since the 2012 RTP/SCS, those currently in design or under construction, airport-related ground access improvements included in the 2016 RTP/SCS, and airport-related ground access improvements included in the 2015 FTIP.

PALM SPRINGS INTERNATIONAL AIRPORT (PSP)

Palm Springs International Airport is located in the Coachella Valley, in the City of Palm Springs. The passenger terminal is located at the end of Tahquitz Canyon Way in the southwest portion of the airport and consists of two concourses with a total of 17 gates.

Regional access is provided by I-10, about four miles north of the airport. Kirk Douglas Road is the internal airport roadway that circles the on-site surface parking lots and provides access to the terminals. Taxicabs, private transportation companies, and public shared-shuttle companies, and can be picked up on the north side of the terminal adjacent to rental car facilities.

Transit access is provided by municipal bus provider Sunline's SunBus Route 24, which stops just outside the airport at the Kirk Douglas Way/El Cielo Road/Tahquitz Canyon Way intersection. Regional bus connections include the Morongo Basin Transit Authority's Routes 12 and 15.

TABLE 11 PSP Ground Access Projects

PSP Ground Access Projects
Recently Completed Ground Access Projects
Upgrade I-10/Gene Autry Trail interchange ramps to a 2-lane configuration. Modify Gene Autry Trail from 2 to 6 lanes (from I-10 interchange to Salvia Rd.)
Upgrade I-10/Date Palm interchange ramps to a 2-lane configuration
Widen Indian Canyon Drive to a 6-lane configuration (from Union Pacific Rail Road to I-10)
Ground Access Projects Currently Under Construction (or in Design)
None
Recent and On-going Ground Access Studies
None

TABLE 11 PSP Ground Access Projects: Continued

PSP Ground Access Projects
2016 RTP Ground Access Projects
3A07100-RIV110124: In the Coachella Valley in the City of Palm Springs - Ramon Road widening between San Luis Rey Drive & Landau Boulevard
3A07004: Gene Autry Trail, new bridge to replace existing low water crossing at Whitewater River.
3A07018A: Landau Boulevard, construct new 6-lane road between Vista Chino and I-10, including overcrossing at Whitewater River
3A01CV078: Widen Ramon Road from 4 to 6 lanes between Gene Autry Rail and White water River
3A07005: Widen Ramon Road from 4 to 6 lanes between S. Indian Canyon to Sunrise Way, including Baristo Storm Channel crossing)
3A07145: Widen Ramon Road from 4 to 6 lanes between S. Palm Canyon Dr to S. Indian Canyon Drive
RIV031205: In the City of Palm Springs - widen Ramon Road from 4 to 6 lanes
3M0722: On I-10, Construct new 6-lane mixed flow, partial cloverleaf IC with auxiliary lanes and 4 two lane ramps plus 6 lane grade separation bridge over UPRR between Palm Drive ICDr Interchange and Date Palm Drive Interchange
3TR04C: Implement Bus Rapid Service/BRT on Highway 111
3TC04TR3: Construct 3 transit centers (west, central, and east valley) in Coachella Valley
2015 FTIP Ground Access Projects
RIV110124: In the Coachella Valley in the City of Palm Springs - Ramon Road Widening between San Luis Rey Drive & Landau Boulevard
RIV031205: In the City of Palm Springs - widen Ramon Road from 4 to 6 lanes
RIV041021: Bus rapid transit (BRT) enhancements

NOTES

[1] Southern California Association of Governments. August 2015. Regional Aviation Forecast: Analysis of Airport Capacity Constraints Technical Memorandum. Prepared by: AECOM.

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TABLE 13 SNA Ground Access Projects

SNA Ground Access Projects
Recently Completed Ground Access Projects
Add 1 northbound ramp and westbound right-turn lane on Paularino at SR-55
Ground Access Projects Currently Under Construction (or in Design)
None
2016 RTP Ground Access Projects
ORA016: Paularino Avenue (SR-55 northbound frontage road at Paularino Avenue) in Costa Mesa
2M0733: On SR-55, add 1 mixed flow lane each direction and fix chokepoints from I-405 to I-5
2H0706: On SR-73, add HOV connector between I-405 and SR-73
2H0707: On SR-73, add 1 HOV lane each direction from MacArthur to I-405
ORA030605-ORA030605: I-405 from SR-73 to I-605. Add 1 mixed flow lane in each direction
ORA030605-ORA030605A: I-405 from SR-73 to I-605. Convert existing HOV to HOT.
2M0728: Add 1 MF Lane each direction from I-5 to SR-55 and add southbound auxiliary lanes from 133 to Irvine Center Drive
2015 FTIP Ground Access Projects
ORA015: Baker Street and SR-55; northbound & southbound frontage road improvements
ORA016: Paularino Avenue (SR-55 northbound frontage road at Paularino Avenue) Costa Mesa intersection improvement
ORA017: Paularino Avenue (SR-55 southbound frontage road in Costa Mesa), Intersection improvement add southbound right-turn lane.
ORA100511: SR-55 widening between I-405 and I-5 - add 1 mixed flow lane each direction and fix chokepoints from I-405 to I-5
ORA030605: I-405 from SR-73 to I-605. Add 1 MF lane in each direction
ORA030605A: I-405 from SR-73 to I-605. Convert existing HOV to HOT
ORA131304: I-405(I-5 to SR-55)-Add 1 MF lane each direction from I-5 to SR-55 and improve merging

TABLE 13 provides a detailed list of the ground access improvements John Wayne Orange County Airport completed since the 2012 RTP/SCS, those currently in design or under construction, airport-related ground access improvements included in the 2016 RTP/SCS, and airport-related ground access improvements included in the 2015 FTIP.

SOUTHERN CALIFORNIA LOGISTICS AIRPORT (VCV)

Southern California Logistics Airport is located in the City of Victorville in San Bernardino County, about 20 miles north of the city of San Bernardino. Regional access to the airport is provided by US 395 and I-15. Direct access to airport facilities is is available from Phantom Way at Worley Boulevard/George Boulevard.

As the airport currently has no scheduled passenger air service, there are no rental car facilities at the airport, and no private operators provide ground transportation services to the airport. Victor Valley Transit bus Route 32 has a stop just outside the airport at the Phantom Way/George Boulevard intersection.

The proposed High Desert Corridor project is currently in the environmental review stage. When constructed, it will provide a new multipurpose east-west corridor between SR14 and SR18 and greatly improve ground connections from the airport to the regional highway system.

There are no recently planned or completed ground access projects at Southern California Logistics Airport.

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TECHNICAL AND POLICY COMMITTEE REVIEW

The development of the regional and airport forecasts was reviewed by technical and policy committees throughout the preparation of the 2016 RTP/SCS. In addition, airport operators were consulted regarding the operations of their airports. TABLE 14 lists the dates of committee meetings and the actions taken at each.

TABLE 14 Lists the dates of committee meetings and the actions taken at each

Date	Committee	Agenda/Action
8/28/14	Aviation Technical Advisory Committee	Data request to airport operators
3/13/15	Aviation Technical Advisory Committee	Review of airport capacity constraints methodology and results
4/23/15	Aviation Technical Advisory Committee	Review of overall regional passenger demand forecast methodology and results
6/4/15	Transportation Committee	Approval of overall regional passenger demand forecast
6/25/15	Aviation Technical Advisory Committee	Review of ground access modeling methodology
7/2/15	Transportation Committee	Initial airport forecasts agendized but not presented
7/23/15	Transportation Committee	Presentation of initial aiport forecasts; no action taken
8/6/15	Transportation Committee	Approval of individual airport demand forecasts
10/8/15	Transportation Committee	Approval of cargo forecasts and of ground access strategies

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2016 2040 RTPSCS

APPENDIX

TRANSPORTATION SYSTEM | AVIATION AND AIRPORT GROUND ACCESS

PROPOSED FINAL | MARCH 2016

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SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

MAIN OFFICE
818 West 7th Street, 12th Floor
Los Angeles, CA 90017
(213) 236-1800

www.scag.ca.gov

REGIONAL OFFICES

Imperial County
1405 North Imperial Avenue, Suite 1
El Centro, CA 92243
Phone: (760) 353-7800
Fax: (760) 353-1877

Orange County
OCTA Building
600 South Main Street, Suite 906
Orange, CA 92868
Phone: (714) 542-3687
Fax: (714) 560-5089

Riverside County
3403 10th Street, Suite 805
Riverside, CA 92501
Phone: (951) 784-1513
Fax: (951) 784-3925

San Bernardino County
Santa Fe Depot
1170 West 3rd Street, Suite 140
San Bernardino, CA 92410
Phone: (909) 806-3556
Fax: (909) 806-3572

Ventura County
950 County Square Drive, Suite 101
Ventura, CA 93003
Phone: (805) 642-2800
Fax: (805) 642-2260

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Exhibit J

LAX Terminals 2 & 3 Project Notice of Preparation of an EIR and Initial Study

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California Environmental Quality Act

NOTICE OF PREPARATION
FOR AN ENVIRONMENTAL IMPACT REPORT
AND
NOTICE OF PUBLIC SCOPING MEETING

DATE: August 11, 2016

TO: Office of Planning and Research – State Clearinghouse, Responsible or Trustee Agency, and Interested Parties

FROM: City of Los Angeles
Los Angeles World Airports
One World Way, Room 218
Los Angeles, CA 90045

PROJECT NAME: Los Angeles International Airport (LAX) Terminals 2 and 3 Modernization Project

PROJECT LOCATION/ADDRESS: The project site (generally LAX Terminals 2 and 3) is located within the Central Terminal Area (CTA) of LAX. LAX is situated within the City of Los Angeles, an incorporated city within Los Angeles County. The project site is in the northern portion of the CTA, west of Sepulveda Boulevard and Sky Way, north of World Way, between Terminal 1 and the Tom Bradley International Terminal (TBIT), and south of the LAX north airfield complex. See attached Project Location Map (Figure 1).

COMMUNITY PLANNING AREA: LAX Specific Plan

COUNCIL DISTRICT: 11 – Bonin

DUE DATE FOR PUBLIC COMMENTS: September 9, 2016

The Los Angeles World Airports (LAWA), a propriety department of the City of Los Angeles, will be the Lead Agency and will prepare an Environmental Impact Report (EIR) for the project identified below (proposed project). LAWA, as the Lead Agency, must prepare and distribute a Notice of Preparation (NOP) after it decides to prepare an EIR. LAWA, through the NOP, solicits participation in determining the scope of the EIR from responsible public agencies (those which may have discretionary approval authority over the proposed project or an aspect of it), trustee agencies (agencies with jurisdiction over a natural resource held in public trust that the project may affect), and from local governments, regional agencies, private individuals and organizations, which may have concerns about the proposed project.

A scoping meeting will be held during the 30-day NOP review period to receive input as to what areas the EIR should study. No decisions about the proposed project are made at the scoping meeting.

The project description, a list of agencies and city entities which may be required to take actions associated with the proposed project, and the potentially significant environmental effects of the proposed project are set forth below. A copy of the Initial Study prepared for the proposed project is available during the 30-day NOP review at LAWA's website at: http://www.OurLAX.org and at the locations listed below:

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- LAWA, One World Way, Room 218, Los Angeles, CA 90045
- Westchester-Loyola Village Branch Library, 7114 W. Manchester Avenue, Los Angeles, CA 90045
- Inglewood Public Library, 101 W. Manchester Blvd. Inglewood, CA 90301
- El Segundo Public Library, 111 W. Mariposa Ave, El Segundo, CA 90245
- Playa Vista Branch Library, 6400 Playa Vista Drive, Los Angeles, CA 90094
- Culver City Public Library, 4975 Overland Avenue, Culver City, CA 90230

PROJECT DESCRIPTION: The main purpose of the proposed project is to modernize existing Terminals 2 and 3 (T2 and T3) in order to improve passenger level of service and amenities within the terminals; help meet federal security requirements (e.g., security screening), passenger and baggage processing and inspections; improve operations; improve building systems; and modernize the interior and exterior of the terminals to benefit the overall appearance of the CTA. The proposed project includes upgrading the T2 concourse, including construction of additional floor area and reconfiguring existing passenger gate positions; the demolition and reconstruction of the T3 concourse building to provide additional concourse area, including a new operation control center; the demolition of the southern appendages of the T3 satellite; the demolition and reconstruction of the passenger and baggage processing facilities (ticketing buildings – T2.5 and T3.5) associated with T2 and T3, including new facilities for passenger and baggage screening, ticketing, and baggage claim; and a secure connector (i.e., an enclosed/controlled passenger corridor) between T2 and T3. In total, approximately 830,000 square feet of new building space would be added to the two terminals, for a total square footage of approximately 1,620,000 square feet. The proposed project also includes apron improvements, specifically the resurfacing, restriping, and relocation of fuel pits. The proposed project would take approximately 76 months to construct and is estimated to begin second quarter 2017. The operation of the proposed project would provide improved passenger experience, convenience, and quality of service through renovations of aging terminal facilities. The improvements would allow for the reconfiguring of the passenger gate positions and aircraft-parking layout around T2 and T3 to match aircraft fleet requirements, which could result in there being up to five additional passenger gate positions; however, the proposed project would not increase the terminal linear frontage. Figure 2 shows the existing and proposed project site plans.

NECESSARY APPROVALS: The City of Los Angeles has principal responsibility for approving and carrying out the proposed project. Agencies and City entities which may be required to take actions associated with the proposed project include, but may not be limited to:

- U.S. Department of Transportation FAA,
- South Coast Air Quality Management District,
- LAWA Board of Airport Commissioners,
- Los Angeles City Council,
- City of Los Angeles Department of Building and Safety,
- City of Los Angeles Department of Transportation,
- City of Los Angeles Department of Cultural Affairs, and

- Other Federal, State, or local approvals, permits, or actions as may be determined necessary.

ENVIRONMENTAL RESOURCES POTENTIALLY AFFECTED: Construction impacts related to Air Quality, Cultural Resources (archaeological resources, paleontological resources, tribal cultural resources, and human remains), Greenhouse Gas Emissions, Transportation/Traffic, and Mandatory Findings of Significance have been found to have potentially significant impacts and will be analyzed in an EIR prepared for the proposed project. In addition, the proposed project could result in the need for a Water Supply Assessment (WSA). If required, the EIR will include the results of a WSA prepared in accordance with State Water Code Sections 10910-10915. All other environmental impacts (operational Air Quality and odors, Aesthetics, Agriculture and Forestry Resources, Biological Resources, Cultural Resources (historic resources), Geology and Soils, operational Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, operational Transportation/Traffic, and Utilities and Service Systems) have been found to be no impact or less than significant through the analysis in the Initial Study and are not proposed for further analysis in the EIR.

PUBLIC SCOPING MEETING DATE AND LOCATION: A public scoping meeting in an open house format will be held to receive public comment regarding the scope and content of the environmental information to be included in the Draft EIR. LAWA encourages all interested individuals and organizations to attend this meeting. The location, date, and time of the public scoping meeting for this project are as follows (and shown on Figure 3):

Date: Wednesday, August 24, 2016

Time: 6:00 pm to 8:00 pm
Arrive any time to speak one-on-one with City staff and project consultants.

Location: Los Angeles Fire Station #5
8900 S. Emerson Avenue,
Los Angeles, CA 90045

NEXT STEPS: As noted above, LAWA is requesting input during the NOP 30-day public review period from interested government and quasi-government agencies, other organizations and private citizens, regarding the scope and content of environmental information to be included in the EIR. In the future, public agencies receiving this notice may need to use the EIR prepared by LAWA when considering their permits or other approvals for the proposed project.

Any public agencies that respond to this Notice are requested, at a minimum, to:

1. Describe significant environmental issues, reasonable alternatives and mitigation measures which they would like to have addressed in the EIR.
2. State whether they are a responsible or trustee agency for the project, explain why and note the specific project elements that are subject to their regulatory authority.
3. Provide the name, address and phone number of the person who will serve as their point of contact throughout the environmental review process for this project.

LAWA welcomes all comments regarding potential environmental impacts of the project and the issues to be addressed in the EIR. All comments will be considered in the preparation of the EIR. **Written comments must be submitted to the contact and office noted below by September 9, 2016 no later than 5:00 p.m.** Written comments will also be accepted at the public scoping meeting described above. On receipt of comments on the NOP, LAWA will consider those comments and prepare the Draft EIR. The Draft EIR will analyze the potential adverse impacts that are anticipated to result from the proposed project, identify potential mitigation measures where reasonable and feasible, and analyze reasonable and feasible alternatives to the proposed project that could reduce or avoid identified significant impacts while still feasibly achieving most of the basic project objectives.

Please direct your comments to:

Angelica Espiritu
Los Angeles World Airports
One World Way, P.O. Box 92216
Los Angeles, CA 90009-2216
(800) 919-3766

Comments can also be submitted on the LAWA's website at http://www.OurLAX.org.

Signature: Lisa Trifiletti

Lisa Trifiletti

Title: Deputy Executive Director, Environmental Programs Group
Date: August 11, 2016

Enclosures:
Figure 1: Project Location Map
Figure 2: Existing and Proposed Site Plans
Figure 3: Map of Scoping Meeting Location

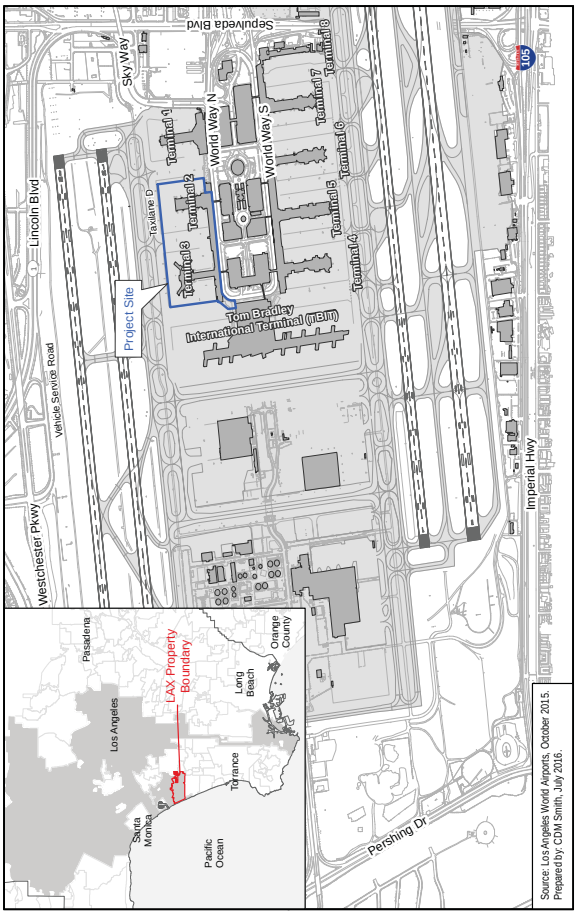
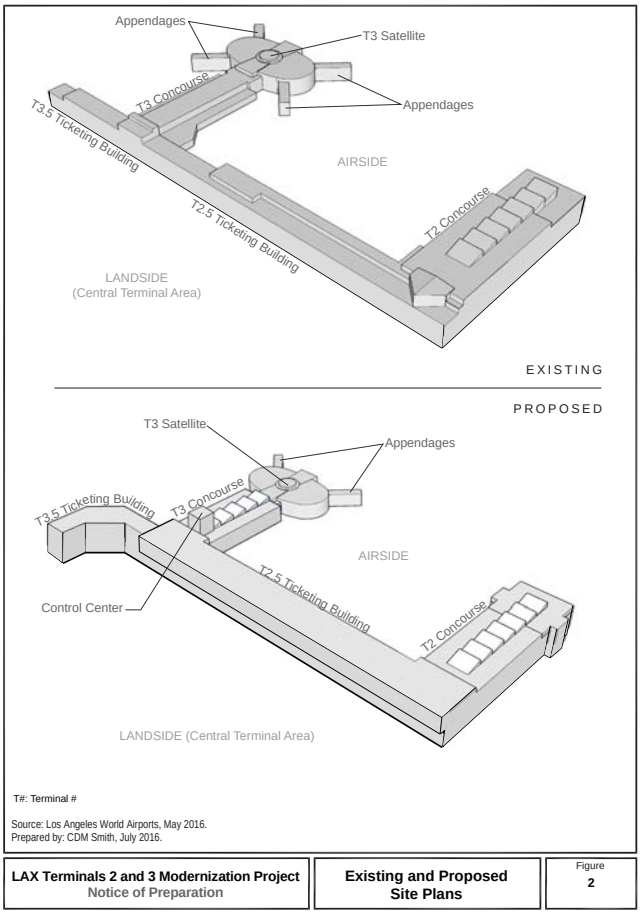


Figure 1

Project Location Map

LAX Terminals 2 and 3 Modernization Project
Notice of Preparation



T#: Terminal #

Source: Los Angeles World Airports, May 2016.
Prepared by: CDM Smith, July 2016.

LAX Terminals 2 and 3 Modernization Project Notice of Preparation	Existing and Proposed Site Plans	Figure 2

Figure 3

Map of Scoping Meeting Location

LAX Terminals 2 and 3 Modernization Project
Notice of Preparation

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Notice of Preparation and Initial Study

Los Angeles International Airport (LAX) Terminals 2 and 3 Modernization Project

Prepared By:

Los Angeles World Airports

One World Way, Room 218
Los Angeles, CA 90045

with assistance from:

CDM Smith
111 Academy Way, Suite 150
Irvine, CA 92617

August 2016

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LAMP-AL00008

Los Angeles International Airport (LAX) Terminals 2 and 3 Modernization Project

Initial Study

1.0 INTRODUCTION

Los Angeles World Airports (LAWA) proposes improvements to existing Terminals 2 and 3 (T2 and T3) at Los Angeles International Airport (LAX) (the LAX T2/T3 Modernization Project or "proposed project"). The main purpose of the proposed project is to modernize existing T2 and T3 in order to improve passenger quality of service and amenities within the terminals; improve the efficiency of security screening, passenger and baggage processing and inspections; improve operations and building systems; and modernize the interior and exterior of the terminals to benefit the overall appearance of the Central Terminal Area (CTA). As described further below, the proposed project includes upgrading the T2 concourse, including construction of additional floor area and reconfiguring existing passenger gate positions; the demolition and reconstruction of the T3 concourse building to provide additional concourse area, including a new operation control center; the demolition of the southern appendages of the T3 satellite; the demolition and reconstruction of the passenger and baggage processing facilities (ticketing buildings) at T2 and T3 (e.g., T2.5 and T3.5), including new facilities for passenger and baggage screening, ticketing, and baggage claim; and, a secure connector (i.e., an enclosed/controlled passenger corridor) between T2 and T3. In total, approximately 830,000 square feet of new building space would be added to the two terminals, for a total square footage of approximately 1,620,000 square feet. The proposed project also includes apron improvements, specifically the resurfacing, restriping, and relocation of fuel pits. The proposed project would take approximately 76 months (six years, four months) to construct and is estimated to begin second quarter 2017. Proposed project would provide improved passenger experience, convenience, and quality of service through renovations of aging terminal facilities. The improvements would allow for up to five additional passenger gate positions and the reconfiguring of the passenger gate positions and aircraft parking layouts around T2 and T3 to match aircraft fleet requirements; however, the proposed project would not increase the terminal linear frontage.

2.0 PROJECT LOCATION AND SURROUNDING USES

Regional Setting

As shown in **Figure 1**, the project site is located within the City of Los Angeles, at LAX on LAWA property. The project site is located within the City of Los Angeles' Los Angeles International Airport Plan (LAX Plan) area, which is in the County of Los Angeles. LAX is the primary airport for the greater Los Angeles area, encompassing approximately 3,800 acres, and is situated at the western edge

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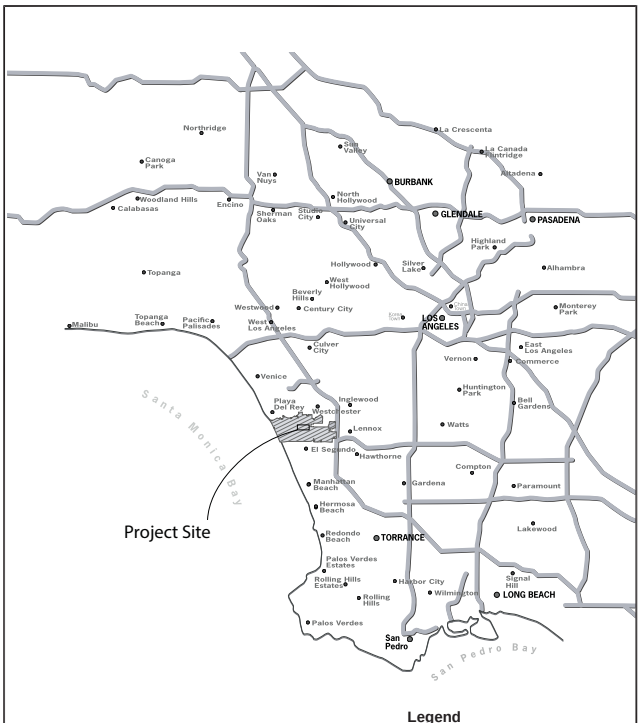

Source: Los Angeles World Airports, February 2016.
Prepared by: CDM Smith, May 2016.

LAX Terminals 2 and 3 Modernization Project	**Regional Location Map**	Figure **1**

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of the City of Los Angeles. In 2015, LAX handled 655,564 aircraft landings and takeoffs and 74.9 million passengers (the third busiest airport in the United States, and the seventh busiest in the world).[1]

In the LAX vicinity, the community of Westchester is located to the north, the City of El Segundo is to the south, the City of Inglewood and unincorporated portions of Los Angeles County are to the east, and the Pacific Ocean lies to the west. Regional access to LAX is provided by Interstate 105 (I-105), which runs east-west and is located adjacent to LAX on the south, and the San Diego Freeway (Interstate 405 or I-405), which runs north-south and is located east of LAX. The main arterial streets serving LAX include Sepulveda Boulevard, Century Boulevard, Imperial Highway and Lincoln Boulevard.

Local Setting and Land Uses

The CTA is arranged similar to a "campus" in that there is an internal collection of buildings (i.e., terminals and parking structures) and roadways (both upper and lower) that are in a U-shaped area. Within the CTA, there are nine passenger terminals with the upper-level associated with departures and the lower level for arrivals. The two-level airport roadway network is accessed from the following three off-airport roadways: Century Boulevard, Sepulveda Boulevard, and 96th Street Bridge/Sky Way. Each of these roadways provides vehicular access to both the departures (upper) level or the arrivals (lower) level curbsides and roadways. Airport access from the departures level to the arrivals level is provided via a recirculation ramp located at the eastern end of the CTA and a ramp at the western end of Center Way, connecting to West Way. Access from the arrivals level to the departures level is provided via the ramp at the western end of Center Way, connecting to West Way (upper level).

As shown in **Figure 2**, the approximately 41-acre project site is in the northern portion of the CTA, north of World Way and approximately 2,200 feet west of Sepulveda Boulevard, 8,000 feet east of Pershing Drive, 2,600 feet south of Westchester Parkway, and 5,000 feet north of Imperial Highway. The project site consists of existing T2 and T3 including the concourse buildings, and accompanying ticketing building The project site also includes a paved open area to the southwest of T3, where a new ticketing building (i.e., Terminal 3.5, as described below) is proposed to be constructed. The northern (airside) area associated with the project site is bound by a common airside access system comprised of Taxilane D and a vehicle service road to the north. Because the proposed project includes airside apron improvements, as shown in **Figure 2**, the project site includes the apron area associated with T2 and T3.

The land use setting around the project site is generally characterized by LAX landside and airside uses, such as terminal buildings and gates, runways, taxiways, and aircraft apron areas to the north, east, and west; and the CTA, specifically roads, surface parking lots, and parking structures, to the south. The LAX Theme Building lies south of World Way southeast of the project site. The LAX Plan, the City of Los Angeles General Plan Land Use Element that governs uses on LAX, designates the project site as Airport Airside. The corresponding LAX Specific Plan designates this area as LAX A Zone: Airport Airside Sub-Area.

[1] City of Los Angeles, Los Angeles World Airports, Traffic Comparison (TCOM) Los Angeles International Airport, Calendar YTD January to December 2015. Available: http://www.lawa.org/uploadedfiles/LAX/statistics/tcom-1215.pdf; City of Los Angeles, Los Angeles World Airports, LAX Passenger Traffic Comparison by Terminal, January to December 2014/2015. Available: http://www.lawa.org/uploadedfiles/LAX/statistics/m_share-2015.pdf.

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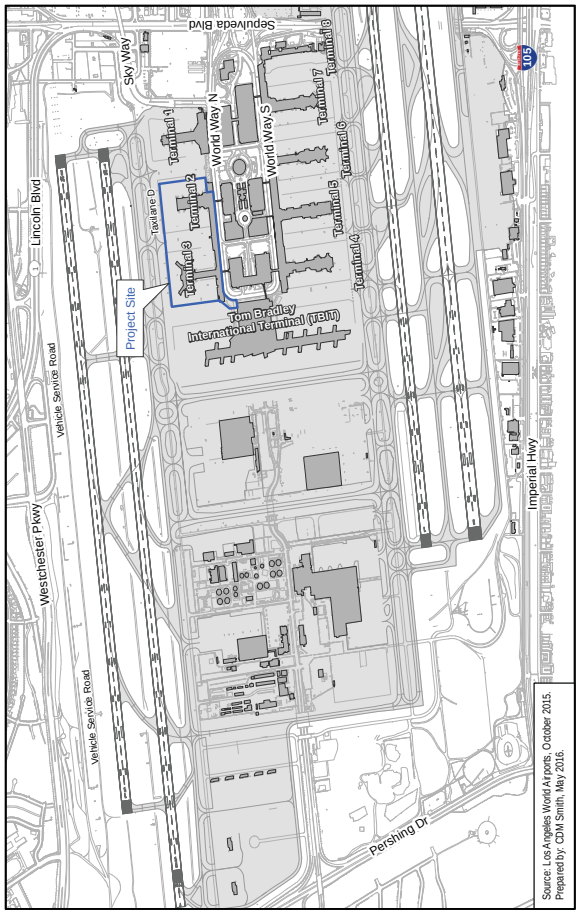


Figure 2

Project Location Map

LAX Terminals 2 and 3 Modernization Project

3.0 EXISTING FACILITIES

Terminals generally consist of: (1) a multi-level ticketing building (which, in the case of LAX, is the portion of a terminal located closest to World Way) and houses functions such as ticketing/passenger check-in, security screening checkpoint, checked bag screening, domestic baggage claim, and operations support; and, (2) a "concourse" (which is the portion of the terminal closest to the airfield), and includes components such as passenger boarding bridges, passenger holdrooms (i.e., waiting rooms for departing flights), clubs/lounges (i.e., airline membership-only passenger facilities), concessions, Federal Inspection Services, baggage make-up, and operations support.

T2 was originally constructed in 1961 but was demolished and completely reconstructed in place in 1988. T3 was constructed in 1961 as part of the original development of the CTA. The original T3 1961 'satellite' (the oval building at the end of the existing concourse) was modified around 1970 to accommodate wide-bodied aircraft, and the other portions of T3 were completed in several stages between 1980 and 1987 (which included a new passenger connector and baggage system linked to the existing satellite). There has been no substantial modernization since that time and the interior and exterior of T2 and T3 are not on a par with other terminals at the CTA. Currently, a total of approximately 19 airlines are operating out of T2 and T3 combined.

4.0 PROJECT DESCRIPTION

The proposed project is the modernization of existing T2 and T3 at LAX. Specific improvements are described below. Refer to **Table 1** for square footage estimates of floor area associated with each level of the proposed project elements and **Figure 3** for a diagram of the existing project site and proposed site plan associated with the proposed project.

Terminal 2 Concourse

The improvements at the existing T2 concourse would include extension of the existing "club level," creating additional area for airline clubs/lounges and new vertical circulation (elevators, escalators, and stairs) and construction to improve the connection of the sterile corridor[2] at the concourse level to the Federal Inspection Station (FIS) facility at the arrivals level. The additional building floor area to be constructed in conjunction with the improvements to the T2 concourse building would occur primarily at the north end of the concourse, as shown in **Figure 3**. These improvements include interior renovation/reconfiguration of space to provide improved quality of service and amenities such as upgrades to building systems (i.e., mechanical, plumbing, and information technology [IT]), improvements at the FIS facility, reconfigured/remodeled office and support space, and the replacement of/modifications to the baggage handling system (BHS) to coordinate with the new passenger check-in positions. The proposed project also includes the installation of new passenger boarding bridges (PBB). Improvements at the T2 concourse would include the reconfiguration of existing gate positions, which would result in there being up to five additional passenger gate positions. The reconfiguration of existing passenger gate positions would occur within the existing terminal linear frontage at T2. The airport

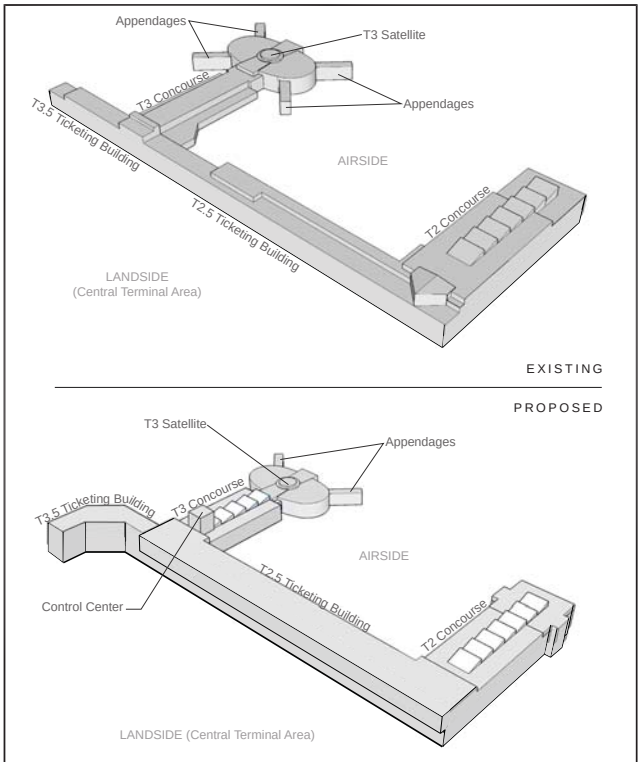
[2] The sterile corridors lead from the arrivals gate to the FIS area and may be secured with access control solutions that include automatic alarms, closed-circuit television (CCTV) cameras and staffed personnel, and directional signage. U.S. Customs and Border Protection (CBP) maintains sterility to prevent mixing of cleared and uncleared passengers, as well as the potential for contraband exchange.

would continue to operate within the existing limitations, and it is anticipated that passengers would not change their modes of transportation or their arrival and departure distribution patterns.

Table 1: Total Building Area

Facility		Existing Area (sf)	Existing Area Renovation (sf)	Existing Area Demolition (sf)	Existing Area Rebuild (sf)	New Construction (sf)	Total Area (sf)
T2.5 Ticketing Building	Mechanical Space	0	0	0	0	40,000	40,000
	Office Level	2,725	0	-2,725	2,725	142,275	145,000
	SSCP/Office	40,123	0	-40,123	40,123	104,877	145,000
	Ticketing Level	89,210	0	-89,210	89,210	25,790	115,000
	Arrivals Level	91,107	0	-91,107	91,107	133,893	225,000
	Total	223,165	0	-223,165	223,165	446,835	670,000
Terminal 2 Concourse Building	Mechanical Space	0	0	0	0	5,000	5,000
	Lounge Level	36,727	14,300	0	0	19,803	56,500
	Concourse Level	86,048	60,200	0	0	17,952	104,000
	Ramp Level	84,130	42,200	0	0	13,850	98,000
	FIS Level	87,796	42,400	0	0	13,204	101,000
	Total	294,701	159,100	0	0	69,809	364,500
Terminal 3 Concourse Building	Control Center	0	0	0	0	2,200	2,200
	Mechanical Space	0	0	0	0	15,000	15,000
	Lounge Level	15,164	0	0	0	47,336	62,500
	Concourse Level	96,744	64,189	-38,350	38,350	28,256	125,000
	Ramp Level	95,435	49,267	-48,898	48,898	29,565	125,000
	Tunnel Level	23,800	23,800	0	0	0	23,800
	Total	231,138	137,251	-87,248	87,248	122,357	353,500
T3.5 Ticketing Building	Mechanical Space	0	0	0	0	12,000	12,000
	Office Level	0	0	0	0	45,000	45,000
	SSCP/Office Level	0	0	0	0	45,000	45,000
	Ticketing Level	16,779	0	-16,779	16,779	53,221	70,000
	Arrival Level	22,230	0	-22,230	22,230	37,770	60,000
	Total	39,009	o	-39,009	39,009	192,971	232,000
Grand Total		788,031	296,351	-349,422	349,422	831,972	1,620,000

Notes: sf – square feet



T#: Terminal #

Source: Los Angeles World Airports, May 2016.
Prepared by: CDM Smith, July 2016.

LAX Terminals 2 and 3 Modernization Project	Existing and Proposed Site Plans	Figure 3

Terminal 3 Concourse and Satellite

Modernization of the T3 concourse would include demolition of the southern appendages of the T3 satellite, and demolition and reconstruction of the apron and concourse levels of the concourse building. Upon project completion, there would be approximately 13 passenger gate positions at T3, with no change in the existing amount of terminal linear frontage. As shown in **Figure 3**, the T3 concourse would be rebuilt in approximately the same location as it currently exists, but the new structure would be approximately 45 feet wider on each side than the existing structure to allow for modernized holdrooms, concessions, support space, etc. for improved levels of customer service. The widening of the concourse would not modify the aircraft parking limit line (i.e., a line established by the FAA beyond which no part of a parked aircraft may protrude). The rebuild of the concourse would include new foundations and structure; new building systems including mechanical, electrical, plumbing, fire life safety, and IT; and new exterior enclosures and interior fit out. New functional spaces would include new baggage handling systems and support space at the apron level; new holdroom, concessions, passenger amenity spaces at the concourse level; and new airline lounge space. Airline and tenant support offices/storage and areas for building systems (electrical, mechanical, IT, etc.) would be located throughout the building. Modifications would also include the addition of a control center similar to what exists at T5, which includes staff that coordinate aircraft arrivals at, and push-back from, the individual gates on the T2 and T3 concourses and coordinate aircraft movements on the alleyways adjacent to the concourses. The proposed control center would be located at the south end of the T3 concourse (refer to the proposed site plan on **Figure 3**). The control center would work in conjunction with the Federal Aviation Administration's (FAA's) airport traffic control tower (ATCT) in managing the movement of aircraft on the airfield. Mechanical equipment would be located on the roof in mechanical penthouses to serve the spaces below. Where demolition occurs at the T3 satellite appendages, the exterior walls would be in-filled and minor interior improvements would be made to accommodate the new configuration. The proposed project would retain the existing underground tunnel associated with the T3 concourse, including the ceramic mosaic tile mural.

T2.5 Ticketing Building

The existing ticketing buildings at T2 and T3 would be completely demolished and rebuilt. For the purpose of the proposed project, the ticketing buildings being rebuilt are characterized as the T2.5 and T3.5 ticketing buildings. In the existing configuration, one ticketing building supports one concourse. Currently the secure concourses of T2 and T3 are not connected. This prevents the movement of secure passengers between concourses. In order to connect from one secure concourse to another, passengers must leave the terminals, go out to the curb, and go back through security again. This creates additional operational demand for Security Screening Checkpoint (SSCP) function when a terminal has to rescreen passengers who have already gone through security (are already secure) at another terminal. With the implementation of the proposed project, as explained in more detail below, the new T2.5 ticketing building would support multiple concourses. The additional passenger and baggage processing space in the new T2.5 ticketing building would improve passenger quality of service and provide additional space to help meet federal security requirements such as baggage and passenger screening. The T2.5 ticketing building would also provide a secure connector between T2 and T3 to allow passengers to connect from one terminal to the other without having to exit to the non-secure side of the terminal. These features would allow one ticketing building to support multiple concourses, provide flexibility in passenger and baggage processing, and improve the level of customer service.

The new T2.5 ticketing building would include new foundations and structure; new building systems including mechanical, electrical, plumbing, fire life safety, and IT; and new exterior enclosures and interior fit out. The new T2.5 ticketing building would consist of four levels, with the additional building floor area necessary to accommodate the improvements described above (see **Table 1** and **Figure 3**). The improvements would include baggage claim and Checked Baggage Inspection Systems (CBIS), bag storage, associated office space, a non-secure connector between the ticketing buildings, ticketing/passenger check-in (which would process all passengers on flights located in T2 and T3), office space to support the check-in process, a non-secure connector between the ticketing buildings, a SSCP, Transportation Security Administration (TSA) support space, associated queue areas, and a secure connector pathway on the north side of the T2.5 ticketing building to accommodate secure passenger traffic between the T2 and T3 concourses. The relocation of the SSCP from the T2 and T3 concourses to the T2.5 ticketing building, would allow for more effective use of space in the concourses including opportunities for improved holdroom/concessions. Other improvements would include lounge space, building systems support spaces, mechanical rooms or space, vertical circulation, restrooms, support, and miscellaneous storage space.

The design of the T2.5 ticketing building would include provisions for accommodating a connection with the future LAX Automated People Mover (APM); specifically, a link to the future pedestrian walkway that is planned to connect to the future CTA APM stations, as contemplated in the initial planning for the LAX Landside Access Modernization Program.[3] The future APM stations associated with the LAX Landside Access Modernization Program is an independent project and not dependent on, or influenced by, the development of the proposed project. The Landside Access Modernization Program project is currently undergoing its own CEQA review and approval process, and its impacts are accounted for considered in the environmental review of the proposed LAX T2 and T3 Modernization Project relative to potential cumulative effects.

T3.5 Ticketing Building

The site where the new T3.5 ticketing building would be located currently holds the existing two-level T3 ticketing building which would be demolished as part of the proposed project. The reconstructed T3.5 ticketing building would include additional passenger and baggage processing space, improving passenger quality of service, and would provide additional space to help meet federal security requirements. The reconstructed T3.5 ticketing building would also include a tie-in to the future planned LAX Terminal 3 Connector between T3 and TBIT. The future LAX Terminal 3 Connector is an independent project and not dependent on or influenced by the development of the proposed project, i.e., it is not necessary for the proposed project to proceed. The LAX Terminal 3 Connector project is currently going through an independent CEQA review and approval process and is accounted for in the cumulative impacts analysis associated with the proposed project (refer to **Table 2** in Section XVIII.b of the Initial Study for a list of development projects at/adjacent to LAX that were considered in the evaluation of cumulative impacts).

The rebuild of the T3.5 ticketing building would include new foundations and structure; new building systems including mechanical, electrical, plumbing, fire life safety, and IT; and new exterior enclosures and interior fit out. The new T3.5 ticketing building would consist of four levels, with the additional

[3] See Figures 4 and 5 in the February 5, 2015 LAX Landside Access Modernization Program Draft EIR Notice of Preparation/Initial Study. Available: http://connectinglax.com/files/LAX.LAMP.Initial.Study_2015.pdf.

building floor area necessary to accommodate the improvements described above (see **Table 1** and **Figure 3**). The improvements would include baggage related functions (including bag storage), associated office space, a non-secure connector between the ticketing buildings, ticketing/passenger check-in, and office space to support the check-in process and a non-secure connector between the T2.5 and T3.5 ticketing buildings. Other improvements would include office space, lounge space, vertical circulation, restrooms, support and miscellaneous storage space, and building systems support spaces. The secure connection to the T2.5 ticketing building and the future planned LAX T3 Connector that would connect to TBIT would occur at the concourse level.

The proposed project would not result in any changes to existing T2 and T3 access or curbs. Curbs would continue to be used for passenger drop-off/pick-up and curbside baggage drop-off. However, the exterior door locations (entrance/exit) would be shifted to accommodate the new design.

The square footage estimates of floor area associated with each level of the proposed project elements are provided in **Table 1**.

The maximum height of the modernized T2 and T3 would be approximately 55 feet from grade, with the maximum height of the ramp control tower at the south end of the T3 concourse building at 110 feet from grade. The height of the T2.5 and T3.5 ticketing buildings would be approximately 100 feet from grade.

Construction

The primary consideration in planning for proposed project construction activities is to maintain safe and uninterrupted operation of the airport, including runway operations and passenger access to terminals. The proposed project would take approximately 76 months (six years, four months) to construct. Construction could commence as early as second quarter 2017 and is projected to end in mid- to late-2023. Work would occur during three shifts per day: Shift 1 from 7:00 am to 3:00 pm, Shift 2 from 3:00 pm to 11:00 pm, and Shift 3 from 11:00 pm to 7:00 am. At peak construction, approximately 550 daily construction personnel would be on-site over the course of the three work shifts. The majority of the construction activities would occur during daytime hours behind construction barriers. Shift 3 (the overnight shift) would be used for those work activities that cannot be accomplished on the day and night shifts due to coordination and interference issues (e.g., airport operations, safety, delivery of materials and equipment). At peak construction, the day and night shifts (Shifts 1 and 2) would have approximately 180 employees per shift, with the balance (190 employees) on the overnight shift (Shift 3). It is not expected that an overnight shift would be required for the entire construction period.

Construction activities for the proposed project would not result in any changes to the number of flights at LAX. Conflicts with terminal activities during construction would be avoided through monitoring of flight schedules and close coordination with terminal operations on a daily basis. Project construction would result in phased gate closures, shuttle transportation for employees and passengers, and restriping on the ramp for new aircraft.

Development of the proposed project improvements would occur on portions of LAX that are currently paved or developed with buildings. The total area of ground surface to be disturbed would be approximately 1,490,000 square feet (sf), extending down to a maximum depth of approximately 16

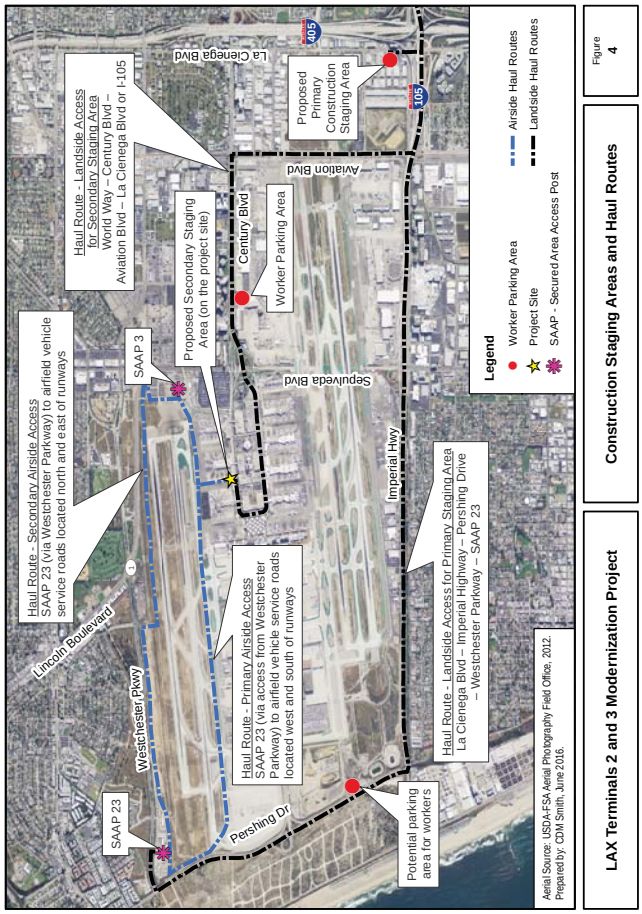
feet. The proposed project would require the excavation of approximately 134,400 cubic yards (cy) of cut/fill soil.

The proposed project would require construction access from both the landside and airside. No permanent lane or road closures either on-airport or off-airport would be required for construction. However, temporary lane closures in the CTA would be required periodically to facilitate some construction activities.

T2 and T3 would remain fully operational at all times during construction. In addition, conflicts between terminal and airfield activities would be avoided by cordoning off construction areas from the airfield.

Construction staging and construction worker parking areas and haul routes that would be used for the proposed project are shown on **Figure 4**. The primary construction staging area, including construction offices, would be located on an existing industrial parcel on La Cienega Boulevard, just north of Imperial Highway. The proposed primary construction staging area is completely developed, including a large warehouse structure (approximately 30,000 square feet of floor area) and associated parking area. Portions of the project site that are not actively under construction at the time may also be used as a secondary construction staging area. Construction staging would be coordinated by LAWA's Construction and Logistics Management (CALM) Team. The CALM Team helps monitor and coordinate the construction logistics of development project at LAX in the interest of avoiding conflicts between ongoing airport operations and construction activities. Secondary construction staging activities, such as short-term storage and/or assembly of construction materials that will soon be installed, short-term storage of recently generated construction wastes that are awaiting pick-up and disposal, and the like, on the project site would also be subject to coordination with, and approval by, LAWA Airfield Operations.

The on-airport airside (i.e., non-public areas within the Airfield Operations Area) entry point for construction materials being transported to and from the project site would be at Secured Area Access Post (SAAP) No. 23, located southeast of the intersection of Westchester Parkway and Pershing Drive. The primary airside haul route within the Airfield Operations Area (AOA) between the project site and SAAP No. 23 would be along the vehicle service road (VSR) that is south of and parallel to Taxiway D, connecting to the VSR that is east of and parallel to Pershing Drive. A secondary airside haul route within the AOA would include the Taxiway D VSR that connects to the north-south VSR at the east end of the north airfield complex and then to the east-west VSR on the north side of Runway 6L-24R, subject to coordination with, and approval by LAWA Airfield Operations. Secondary airside access to the AOA would be available at times through SAAP No. 3, which is currently being relocated to a site southeast of the north runway complex, near the intersection of Alverstone Avenue and Davidson Drive. While the vast majority of access to and from the project site is anticipated to be via the AOA through SAAP 23, there may be occasions when access to and from the project site would occur via World Way, Century Boulevard, and Aviation Boulevard.



As shown on **Figure 4**, the haul route on public roads to and from the airside access point to the project site (i.e., SAAP No. 23), would extend from the driveway at SAAP No. 23, west on Westchester Parkway, south on Pershing Drive, east on Imperial Highway, then either to: (1) north on La Cienega Boulevard and into the primary construction staging area for deliveries going directly between the project site and the primary construction staging area; or, (2) continued east onto I-105 with connections to I-405 for deliveries directly to and from the project site that do not involve the construction staging area. As required by the City of Los Angeles, Department of Building and Safety, LAWA would submit a Haul Route Form and Haul Route Map, as shown on **Figure 4**, covering the export of soil or demolition debris offsite. In addition, pursuant to standard City of Los Angeles, Department of Transportation (LADOT) practices, a Work Traffic Control Plan, showing the location of construction areas and identifying construction traffic as evaluated in the EIR, would be submitted to LADOT.

In situations where secondary construction staging occurs directly on the project site and is accessed from the landside (i.e., public areas outside the AOA), such access would be through the CTA. Trucks leaving the landside portion of the project construction site would travel through the CTA to head east on Century Boulevard, then south on Aviation Boulevard, and then either: (1) east on Imperial Highway and north on La Cienega Boulevard leading into the primary construction staging area for deliveries going between the primary construction staging area and the secondary construction staging area; or (2) continued south onto I-105 with connections to I-405 for deliveries directly to and from the secondary construction staging. Construction contractor parking would occur at LAX Lot F located southeast of the intersection of Century Boulevard and Avion Drive, with workers being shuttled to and from the CTA/project site via Century Boulevard and World Way. Construction contractor parking may also be provided at a parking lot located on the east side of Pershing Drive at Bradley West Drive. Construction employees would be shuttled to and from the project site for their shifts.

LAWA Design and Construction Practices

The proposed project would be designed and constructed in accordance with the Los Angeles Green Building Code (LAGBC), which is based on the California Green Building Code (CALGreen), and would achieve LAGBC Tier-1 conformance through environmentally-sensitive features including, but not limited to, the types described below.

The proposed project would be required to use recycled building materials in the new/modernized facilities, and to recycle construction and demolition debris. Recycling programs would also be employed during operations. Recyclable materials would be collected in the terminals, and tenants operating in the terminals, including concessionaires and restaurant management companies, would be required to have their own recycling and waste reduction programs. Heating and cooling of the modernized terminals would be provided by LAWA's state-of-the-art Central Utility Plant, which incorporates a number of efficiencies that conserve energy and reduce pollutant emissions. The modernized terminals would include efficient lighting fixtures and controls with occupancy sensors to reduce energy consumption during off-peak hours, and the terminals' heating, ventilation, and air conditioning controls would be designed to reset temperatures to maximum efficiency without sacrificing occupant comfort. Where possible, coated glass that minimizes heat gain would be used on exterior walls, and building materials and furnishings would be made of recycled content, and would consist of low-emitting paints, adhesives, carpets, and sealants, where feasible. To conserve potable water, bathrooms in the modernized terminals would be designed with low- and ultra-low-flow systems

and recycled water would be used for construction-related dust control and construction equipment washing when feasible.

The impacts of the proposed project on the resource areas addressed by these features and practices - namely, greenhouse gas emissions, solid waste, and water supply - are discussed below in the Initial Study. The relationship of these features and practices to potential project impacts are also identified in the Initial Study.

Operation

Improvements to the facilities at T2 and T3, and their respective ticketing buildings, would provide improved passenger experience, convenience, and quality of service through renovations of aging terminal facilities. The proposed project would not increase the terminal linear frontage available to park passenger aircraft around T2 and T3. Instead, the proposed project improvements would provide the opportunity for the airlines operating at these terminals to rearrange the aircraft-parking layout around each terminal to match their aircraft fleet requirements within the constraints of the existing terminal linear frontage. Implementation of the proposed project is not anticipated to affect the overall number of operations at LAX, given that such rearrangement/reconfiguration of existing passenger aircraft parking positions can occur at the airport regardless of the proposed project. In addition, implementation of the proposed project is not anticipated to result in a change in the overall air traffic operations at LAX. Air traffic operations at LAX largely reflect the agglomeration of over 70 carriers currently operating at LAX, each of which has its own business model and schedules its flights and operations at LAX in light of overall international and/or domestic operations, market competition, and business objectives. Initial route and runway assignments would continue to be dictated by the origin or destination airport of the aircraft and such assignments are at the discretion of FAA air traffic control, as is the case today. Therefore, the modifications proposed in conjunction with modernization of T2 and T3 would not significantly influence overall air traffic operations at LAX.

5.0 NECESSARY APPROVALS

The City of Los Angeles has principal responsibility for approving and carrying out the proposed project. Agencies and City entities which may be required to take actions associated with the proposed project include, but may not be limited to:

Federal

- U.S. Department of Transportation FAA[4]

Regional

- South Coast Air Quality Management District

Local

- LAWA Board of Airport Commissioners
- Los Angeles City Council

[4] While FAA is not a state agency regarding CEQA review, the proposed project would require approval of Form 7460 (Notice of Proposed Construction or Alteration) in consideration of Part 77 requirements.

- City of Los Angeles Department of Building and Safety
- City of Los Angeles Department of Transportation
- City of Los Angeles Department of Cultural Affairs

Other Federal, State, or local approvals, permits, or actions as may be determined necessary.

Documents Incorporated by Reference

This Notice of Preparation/Initial Study (NOP/IS) uses information from various documents (reports, technical studies, etc.) that were not prepared specifically for the proposed project but that provide relevant information in describing environmental conditions and analyzing the potential environmental effects of the proposed project. Pursuant to Section 15150 of the State CEQA Guidelines, all or portions of another document that is a matter of public record or is generally available to the public may be incorporated by reference. When all or part of another document is incorporated by reference, the incorporated portion is treated as if it were set forth in full. (CEQA Guidelines Section 15150(a).)

Information from other documents that have been incorporated by reference is identified in the relevant environmental impact analysis sections of this NOP/IS. These documents are also listed in the References section at the end of this NOP/IS; as required by Section 15150(b) of the State CEQA Guidelines, documents incorporated by reference are available for public inspection at the address listed above. For purposes of clarification, documents identified as incorporated by reference are separate from the technical studies prepared specifically for the proposed project (as distinguished in the References section of this NOP/IS). In all instances, as required by Section 15150(c), the material being incorporated by reference is summarized or briefly described in the relevant analyses.

Documents relied upon or cited in the NOP/IS but not incorporated by reference are also listed in the References section of this NOP/IS and are available for public inspection at the following address:

Los Angeles World Airports
One World Way, Room 218
Los Angeles, CA 90045

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CITY OF LOS ANGELES

OFFICE OF THE CITY CLERK
ROOM 615, CITY HALL
LOS ANGELES, CALIFORNIA 90012

CALIFORNIA ENVIRONMENTAL QUALITY ACT
INITIAL STUDY
AND CHECKLIST
(Article IV City CEQA Guidelines)

LEAD CITY AGENCY	COUNCIL DISTRICT	DATE
Los Angeles World Airports (LAWA)	Council District 11	August 11, 2016

RESPONSIBLE AGENCIES
South Coast Air Quality Management District

PROJECT TITLE/NO.	CASE NO.
Los Angeles International Airport (LAX) Terminals 2 and 3 Modernization Project	NP-16-004-DA

PREVIOUS ACTIONS CASE NO.	☐ DOES have significant changes from previous actions. ☐ DOES NOT have significant changes from previous actions.

PROJECT DESCRIPTION: The proposed project would modernize the existing Terminals 2 and 3 (T2 and T3) at LAX to improve passenger quality of service and amenities within the terminals; improve the efficiency of security screening, passenger and baggage processing and inspections; improve operations; improve building systems; and modernize the interior and exterior of the terminals to benefit the overall appearance of the Central Terminal Area (CTA). The proposed project would also include upgrading the T2 concourse, including construction of additional floor area and reconfiguring existing passenger gate positions; the demolition and reconstruction of the T3 concourse building to provide additional concourse area; the demolition of the southern appendages of the T3 satellite; the demolition and reconstruction of the passenger and baggage processing facilities (ticketing buildings) at T2 and T3 (e.g., T2.5 and T3.5), including new facilities for passenger and baggage screening, ticketing, and baggage claim; and a secure connector (i.e., an enclosed/controlled passenger corridor) between T2 and T3. The project would also include a new operation control center at the south end of T3. Similar to what exists at T5, the proposed control center, which includes staff that coordinate aircraft arrivals at, and push-back from, the individual gates on the T2 and T3 concourses and coordinate aircraft movements on the alleyways adjacent to the concourses. The control center would work in conjunction with the FAA's ATCT in managing the movement of aircraft on the airfield. In total, approximately 830,000 square feet of new building space would be added to the two terminals, for a total square footage of approximately 1,620,000 square feet. The proposed project also includes apron improvements, specifically the resurfacing, restriping, and relocation of fuel pits. The proposed project would take approximately 76 months (six years, four months) to construct and is estimated to begin second quarter 2017. The operation of the proposed project would

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provide improved passenger experience, convenience, and quality of service through renovations of aging terminal facilities. The improvements would allow for up to five additional passenger gate positions and the reconfiguring of the passenger gate positions and aircraft parking layouts around T2 and T3 to match aircraft fleet requirements; however, the proposed project would not increase the terminal linear frontage.

ENVIRONMENTAL SETTING:
The environmental setting is characterized by a highly-built environment with vehicle, aircraft, and passenger movement activity within and adjacent to the site throughout the day and night. The surrounding area is a highly-developed, urbanized area consisting of airport, commercial, transportation (i.e., interstate highways) and residential uses.

PROJECT LOCATION
The project site (LAX Terminals 2 and 3) is located within the CTA of LAX. LAX is situated within the City of Los Angeles, an incorporated city within Los Angeles County. The project site is in the northern portion of the CTA, west of Sepulveda Boulevard and Sky Way, north of World Way, between Terminal 1 and the Tom Bradley International Terminal (TBIT), and south of the LAX north airfield complex.

PLANNING DISTRICT	STATUS:
LAX Specific Plan	☐ PRELIMINARY ☐ PROPOSED ☒ ADOPTED
EXISTING ZONING LAX Plan - A Zone: Airport Airside Sub-Area	☒ DOES CONFORM TO PLAN
PLANNED LAND USE & ZONE Airport-related airside uses; no change in zone is proposed	☐ DOES NOT CONFORM TO PLAN
SURROUNDING LAND USES North - Airport Airside (apron, north runways, taxiways, service roads) East - Airport Airside (terminals, gates, apron) South - Airport Landside (roads and parking structures) West - Airport Airside (terminals, gates, apron)	☐ NO DISTRICT PLAN

☞ ☐ **DETERMINATION (To be completed by Lead Agency)**

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions on the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

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☒ I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

SIGNATURE	TITLE
	City Planner

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less that significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of a mitigation measure has reduced an effect from "Potentially Significant Impact" to "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analysis," cross referenced).

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5) Earlier analysis must be used where, pursuant to the tiering, program EIR, or other California Environmental Quality Act (CEQA) process, an effect has been adequately analyzed in an earlier EIR, or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   1) Earlier Analysis Used. Identify and state where they are available for review.
   2) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   3) Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A sources list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whichever format is selected.

9) The explanation of each issue should identify:
   The significance criteria or threshold, if any, used to evaluate each question; and
   The mitigation measure identified, if any, to reduce the impact to less than significance.

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below will be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Hazards and Hazardous Materials	☐ Public Services
☐ Agriculture and Forestry Resources	☐ Hydrology and Water Quality	☐ Recreation
☒ Air Quality	☐ Land Use and Planning	☒ Transportation/Traffic
☐ Biological Resources	☐ Mineral Resources	☐ Utilities/Service Systems
☒ Cultural Resources	☐ Noise	☒ Mandatory Findings of Significance
☐ Geology and Soils	☐ Population and Housing	
☒ Greenhouse Gas Emissions		

INITIAL STUDY CHECKLIST (To be completed by the Lead City Agency)

☞☐ **BACKGROUND**

PROPONENT NAME	**PHONE NUMBER***
LAWA – Angelica Espiritu	(800) 919-3766

PROPONENT ADDRESS

One World Way, Room 218, Los Angeles, CA 90045

AGENCY REQUIRING CHECKLIST	**DATE SUBMITTED**
LAWA	August 11, 2016

PROPOSAL NAME (If Applicable)*

LAX Terminals 2 and 3 Modernization Project

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☞☐ **ENVIRONMENTAL IMPACTS** (Explanations of all potentially and less than significant impacts are required to be attached on separate sheets)

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, or other locally recognized desirable aesthetic natural feature within a state or city-designated scenic highway?	☐	☐	☒	☐
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐
II. AGRICULTURE AND FORESTRY RESOURCES. Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with the existing zoning for agricultural use, or a Williamson Act Contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY. Would the project:				
a. Conflict with or obstruct implementation of the applicable South Coast Air Quality Management District plans?	☒	☐	☐	☐
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☒	☐	☐	☐
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the air basin is non-attainment (PM10, PM2.5, and O_3 precursors [NOx and VOC]) under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☒	☐	☐	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
e. Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐
IV. BIOLOGICAL RESOURCES. Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in the City or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or	☐	☐	☐	☒

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				
e. Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?	☐	☐	☐	☒
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒
V. CULTURAL RESOURCES: Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in State CEQA **Guidelines** §15064.5?	☐	☐	☒	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to State CEQA **Guidelines** §15064.5?	☒	☐	☐	☐
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☒	☐	☐	☐
d. Disturb any human remains, including those interred outside of formal or dedicated cemeteries?	☒	☐	☐	☐
e. Cause a substantial adverse change in the significance of a Tribal cultural resource, defined in Public Resources Code §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is: • Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code §5020.1(k), or • A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code §5024.1. In applying the criteria set forth in	☒	☐	☐	☐

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
subdivision (c) of Public Resource Code §5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe?				
VI. GEOLOGY AND SOILS. Would the project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Los Angeles Building Code (2002), creating substantial risks to life or property?	☐	☐	☒	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
VII. GREENHOUSE GAS EMISSIONS. Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐
VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for the people residing or working in the project area?	☐	☐	☐	☒
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY. Would the project:				
a. Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned land uses for which permits have been granted)?	☐	☐	☐	☒
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f. Otherwise substantially degrade water quality?	☐	☐	☒	☐
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j. Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING. Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒
b. Conflict with applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
XI. MINERAL RESOURCES. Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒
XII. NOISE. Would the project result in:				
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
XIII. POPULATION AND HOUSING. Would the project:				
a. Induce substantial population growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
XIV. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a. Fire protection?	☐	☐	☒	☐
b. Police protection?	☐	☐	☒	☐
c. Schools?	☐	☐	☐	☒
d. Parks?	☐	☐	☐	☒
e. Other public facilities?	☐	☐	☐	☒
XV. RECREATION.				
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b. Does the project include recreational facilities or require the construction or expansion of recreational	☐	☐	☐	☒

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
facilities which might have an adverse physical effect on the environment?				
XVI. TRANSPORTATION/TRAFFIC. Would the project:				
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☒	☐	☐	☐
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☒	☐	☐	☐
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☒	☐
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e. Result in inadequate emergency access?	☐	☐	☒	☐
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒
XVII. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of	☐	☐	☐	☒

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
existing facilities, the construction of which could cause significant environmental effects?				
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.				
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐
b. Does the project have impacts which are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects).	☒	☐	☐	☐

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
c. Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

☞ ☐ **DISCUSSION OF THE ENVIRONMENTAL EVALUATION (Attach additional sheets if necessary)**

(See Attachment A)

ATTACHMENT A
EXPLANATION OF CHECKLIST DETERMINATION

I. AESTHETICS. *Would the project*:

a. Have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. The project site is located within the northern portion of the CTA at LAX surrounded by airport uses and is not a prominent feature in any scenic vistas. Broad scenic vistas of the Santa Monica Mountains in the distance beyond LAX are available from some north-facing residences at higher elevations in the El Segundo residential neighborhood located approximately 1 mile to the south. The proposed modernized T2 and T3 facilities would not contribute to, or detract from, scenic vistas from these residences due to their location beyond the intervening cargo and landside uses, the south airfield, and the south terminals as well as the higher vantage points from the residences (the modernized T2, T3, T2.5, and T3.5 facilities being proposed would be well below their line-of-sight). Moreover, the proposed project would not alter existing long-range views of the Santa Monica Mountains. As such, the implementation of the proposed project would not have a substantial adverse effect on views of the Santa Monica Mountains (i.e., a scenic vista). The proposed project would also be visible from the upper floors of the hotels along Century Boulevard. However, the proposed project would be visually consistent with existing adjacent airport-related uses and would not disrupt views of the airfield. Therefore, the proposed project would not have a substantial adverse effect on a scenic vista. Potential impacts related to scenic vistas would be less than significant with the implementation of the proposed project and no further evaluation is required.

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, or other locally recognized desirable aesthetic natural feature within a state or city-designated scenic highway?

Less Than Significant Impact. The project site is currently occupied by terminal buildings and related aircraft apron areas. The site is visible from some upper level offices and hotel rooms along Century Boulevard to the east and is visible in the distance from Interstate 105. The project site is not located adjacent to or within the viewshed of a designated scenic highway. The nearest officially designated state scenic highway is approximately 22 miles northwest of the proposed project site (State Highway 2, from approximately 3 miles north of Interstate 201 in La Cañada to the San Bernardino County Line).[5] The nearest eligible state scenic highway (which is not officially designated by the state, but is a City-designated scenic highway) is State Highway 1, which has a starting point at Lincoln and Venice Boulevards, approximately 4 miles from the project site, and proceeds northwesterly to Point Mugu.[6] Vista del Mar, the nearest City-

[5] California Department of Transportation, California Scenic Highway Mapping System website, updated September 7, 2011. Available: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm, accessed February 27, 2016.

[6] California Department of Transportation, California Scenic Highway Mapping System website, updated September 7, 2011. Available: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm, accessed February 27, 2016.

designated scenic highway, is located approximately 1.8 miles west of the project site;[7] the project site is not visible from Vista del Mar. There are no direct views to or from any scenic highways.

The Los Angeles/El Segundo Dunes are located approximately 1.5 miles west of the project site, opposite Pershing Drive. The project site is not visible from the dunes and the proposed project would not obstruct any views of the dunes. The proposed project is not located within the viewshed of any other scenic resources or other locally recognized desirable aesthetic natural feature. In addition, the project site does not contain any trees, rock outcroppings, or other locally recognized desirable aesthetic natural features within a City-designated scenic highway. The proposed project would not substantially damage scenic resources, including scenic highways. Therefore, potential impacts related to scenic resources would be less than significant with the implementation of the proposed project and no further evaluation is required.

The potential for the proposed project to substantially damage historic buildings is detailed below under Section V.a.

c. Substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact. The project site is a highly developed area within a busy international airport. The proposed project site is occupied by existing T2 and T3 and related aircraft apron areas. The north terminals (T1, T2 and T3) and the majority of the surrounding structures are utilitarian in appearance. As further discussed under Section V.a. below, T3 is the only terminal on the north side of the CTA that includes one of the airport's original early 1960s oval-shaped satellite terminals. T3 has also retained its original underground tunnel with mosaic tile murals connecting the original (1961) ticketing/baggage building to the oval shaped satellite building. The proposed project would not affect the T3 original (1961) underground tunnel with mosaic tile murals that connects to the oval shaped satellite building. The T3 satellite, built in 1961, remains largely intact, but its southern façade has been altered by the addition of an aboveground concourse pier connecting the ticketing/baggage claim buildings to the satellite. Alteration of the original ticketing/baggage building and the addition of the connecting concourse in the 1980s have substantially changed the original 1961 configuration of T3 such that its original form is only partially apparent.

In addition, although not within the project site, there are several structures with notable architecture, including the Theme Building and 1961 ATCT, which are located within the project area. Views of the CTA and the existing airfield are not scenic or of high quality visual character.

The proposed project would modernize and improve the aesthetic quality of North Terminal Complex (T1, T2 and T3) and the visual character of the entrance to the CTA. The proposed improvements to T2, T3 and associated ticketing buildings (T2.5 and T3.5) would be compatible in look and materials, and tie into the recent improvements to TBIT. Further, construction activities at the proposed project site would be visually consistent with the existing airport-related and commercial uses of the site and surroundings. Therefore, the proposed project would not have the potential to substantially degrade the existing visual character or quality of the

[7] City of Los Angeles, Department of City Planning, Mobility Plan 2035: An Element of the General Plan, Maps D1 and D2, December 17, 2015, as adopted January 20, 2016. Available: http://planning.lacity.org/documents/policy/mobilityplnmemo.pdf.

site and its surroundings. Potential impacts would be less than significant with the implementation of the proposed project and no further evaluation is required.

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. The project site is in an urban area with many existing sources of ambient lighting, including building lighting, roadway lighting (within the CTA), and airport operations lighting, such as lights from aircraft and airside equipment, apron/terminal lights, and airfield lights (runway and taxiway lights). Building and roadway lighting associated with the proposed project would be consistent with the type of lighting found in the CTA. As described in Section 4.0, Project Description, the proposed design incorporates storefront glazing along the curb, as well as glazed walls on the north side of the proposed T2.5 and T3.5 buildings to provide vistas of the airfield and surrounding landscape. External lights would be shielded and focused to avoid glare and prevent unnecessary light spillover. Therefore, implementation of the proposed project would not have the potential to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. Potential impacts related to light and glare would be less than significant with the implementation of the proposed project and no further evaluation is required.

II. AGRICULTURE AND FORESTRY RESOURCES. *Would the project:*

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

b. Conflict with the existing zoning for agricultural use, or a Williamson Act Contract?

c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

d. Result in the loss of forest land or conversion of forest land to non-forest use?

e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

a-e. No Impact. The project site is located within a developed airport and is surrounded by airport uses and urbanized areas. There are no agricultural resources or operations at the project site or surrounding areas, including prime or unique farmlands or farmlands of statewide local importance. Further, there are no Williamson Act contracts in effect for the project site or surrounding areas.[8] The proposed project would represent a continuation of the current airport-

[8] City of Los Angeles, Department of City Planning, Conservation Element of the City of Los Angeles General Plan, Exhibit B2, SEAs and Other Resources, January 2001.

related uses and would not convert farmland to non-agricultural use nor would it result in any conflicts with existing zoning for agricultural use or a Williamson Act contract.

There are no forest land or timberland resources or operations within the vicinity of the project site, including timberland zoned Timberland Production. The proposed project would be consistent with the current airport-related uses and would not convert forest land or timberland to non-forest. Therefore, no impacts to agricultural or forest land or timberland resources would occur with the implementation of the proposed project and no further evaluation is required.

III. AIR QUALITY. *Would the project:*

a. Conflict with or obstruct implementation of the applicable South Coast Air Quality Management District plans?

b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

c. Result in a cumulatively considerable net increase of any criteria pollutant for which the air basin is non-attainment (PM10, PM2.5, and O_3 precursors [NOx and VOC]) under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

d. Expose sensitive receptors to substantial pollutant concentrations?

a-d. Potentially Significant Impact.

Construction

Air pollutant emissions associated with construction activities for the proposed project may exceed the South Coast Air Quality Management District (SCAQMD) CEQA significance thresholds, which would violate air quality standards or contribute to an existing air quality violation. The EIR for the proposed project will evaluate whether construction of the proposed project would: (1) conflict with or obstruct implementation of the applicable SCAQMD plans; (2) violate any air quality standard or contribute substantially to an existing or projected air quality violation; (3) result in a cumulatively considerable net increase of any criteria pollutant for which the air basin is non-attainment (PM10, PM2.5, and O_3 precursors [NOx and VOC]) under an applicable federal or state ambient air quality (including releasing emissions which exceed quantitative thresholds for ozone precursors); and/or (4) expose sensitive receptors to substantial pollutant concentrations.

Operation

Changes to operational surface traffic and airfield operating conditions associated with the proposed project and that could affect air quality are evaluated in detail under Sections XVI.a-b and c. As discussed therein and in Section 4.0, Project Description, the proposed project would entail a series of improvements to modernize the concourses at T2 and T3, as well as the demolition and reconstruction of their respective passenger processors (ticketing buildings - T2.5 and T3.5). The proposed project would not change the existing T2 or T3 access and curbside conditions. Linear length and width of the curbside facilities would not change compared to existing conditions, and as result, curbside capacity at each of the CTA arrivals (lower level) and departures (upper level) curbsides in front of T2 and T3, and their respective ticketing buildings, would

remain unchanged compared to existing conditions. As such, potential operations-related air pollutant emissions impacts related to surface traffic and airfield operating conditions would be less than significant and no further evaluation is required.

Improvements to the facilities at T2 and T3, and their respective ticketing buildings, are intended to provide improved passenger experience, convenience, and quality of service through renovations of aging terminal facilities. The proposed project would not increase the terminal linear frontage available to park passenger aircraft around T2 and T3. The proposed project improvements would provide the opportunity for the airline(s) operating at these terminals to rearrange the aircraft-parking layout around each terminal to match their aircraft fleet requirements within the constraints of the existing terminal linear frontage. Upon project completion, there would be up to five additional gates (which equates to up to 15 passenger gates at T2), depending on the sizing of each gate (i.e., the largest aircraft type that can be accommodated at the gate), with no increase in existing terminal linear frontage (i.e., given the limitation of the existing terminal linear frontage, the composition of gates within the higher end the range [15 gates] would be characterized by smaller gauge aircraft gates than the composition of gates at the lower end of the range [10 gates], which would have comparatively more larger gauge aircraft gates). Implementation of the proposed project is not anticipated to result in a change in the overall air traffic operations at LAX. Air traffic operations at LAX largely reflect the agglomeration of over 70 carriers currently operating at LAX, each of which has its own business model and schedules its flights and operations at LAX in light of overall international and/or domestic operations, market competition, and business objectives. The modifications proposed in conjunction with modernization of T2 and T3 would not significantly influence overall air traffic operations at LAX.

Implementation of the proposed project is not anticipated to result in an increase in the number of passengers accommodated at LAX than what could otherwise occur in the absence of the project. Passengers would not change their modes of transportation or their arrival and departure distribution patterns as a result of the proposed project. As such, potential impacts on the CTA roadways system and on the off-airport roadway network in the vicinity of LAX would be less than significant and no further evaluation is required (refer to Section XVI below for additional information).

Implementation of the proposed project is not anticipated to result in a change to air traffic procedures for airspace route and runway assignment or routing of aircraft between the runways and their parking position. FAA air traffic control would continue to allocate runway assignment in order to balance runway use and maximize the efficiency of the airport. Based on the above, air pollutant emissions associated with operation of the proposed project would be less than significant and operation of the proposed project would not: (1) conflict with or obstruct implementation of the applicable SCAQMD plans; (2) violate any air quality standard or contribute substantially to an existing or projected air quality violation; (3) result in a cumulatively considerable net increase of any criteria pollutant for which the air basin is non-attainment (PM10, PM2.5, and O_3 precursors [NOx and VOC]) under an applicable federal or state ambient air quality (including releasing emissions which exceed quantitative thresholds for ozone precursors); and/or (4) expose sensitive receptors to substantial pollutant concentrations.

As such, potential operations-related air pollutant emissions impacts would be less than significant with the implementation of the proposed project and no further evaluation is required.

e. Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact.

Construction

The use of diesel equipment during construction would generate near-field odors that are considered to be a nuisance. Diesel equipment emits a distinctive odor that may be considered offensive to certain individuals. Construction activities that would use heavy diesel equipment are expected to occur over a period of approximately 76 months (six years, four months). Due to the temporary nature of these activities and the distance of the project site from sensitive receptors (the closest sensitive receptors to the project site are the residential areas 3,200 feet to the north within the community of Westchester and the Concourse Hotel on Century Boulevard approximately 2,000 feet to the east), odors from construction-related diesel exhaust would not affect a substantial number of people. Therefore, construction of the proposed project would not create objectionable odors affecting a substantial number of people. The potential impact would be less than significant and no further evaluation is required.

Operation

Operation of the new facilities would be consistent with similar existing passenger processing facilities in the CTA and would not involve the use of equipment or materials that would create objectionable odors.

Therefore, implementation of the proposed project would not create objectionable odors affecting a substantial number of people. The potential impact would be less than significant and no further evaluation is required.

IV. BIOLOGICAL RESOURCES. *Would the project:*

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in the City or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

e. Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance (e.g., oak trees or California walnut woodlands)?

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

a-f. No Impact. The project site is located in a highly developed area within the CTA that, other than limited ornamental landscaping, is completely devoid of biological resources. The proposed construction staging area and construction contractor parking area (illustrated in **Figure 4** of the NOP), are completed developed with a warehouse/parking area and an airport parking lot, (LAX Lot F), respectively, and are also completely devoid of biological resources. While other areas within the airport boundary contain plant and animal species as well as habitats identified as sensitive, as further described below, none of the identified sensitive plant or animal species have been identified on the project site, the proposed construction staging area, or the proposed construction contractor parking area, or in their immediate vicinity. Therefore, the proposed project would have no impacts to sensitive or special status species or habitats.

There are no riparian/wetland areas, native trees, or wildlife movement corridors at or adjacent to the project site, the proposed construction staging area, or the proposed construction contractor parking area. Therefore, no impacts to any riparian or other sensitive natural community or to any federally protected wetlands as defined by Section 404 of the Clean Water Act would occur with the implementation of the proposed project.

There are no wildlife movement corridors or native trees at or adjacent to the project site, the proposed construction staging area, or the proposed construction contractor parking area. Therefore, the proposed project would not interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

As indicated above, there are no native trees, including trees protected by City of Los Angeles Ordinance No. 177404[9] (i.e., oak trees indigenous to California [excluding Scrub Oak], Southern California Black Walnut, Western Sycamore, or California Bay) at or adjacent to the project site, the proposed construction staging area, or the proposed construction contractor parking area. Therefore, the proposed project would not conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance.

There is no adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan that includes the project site, the proposed construction staging area, or the proposed construction contractor parking area. The Dunes Specific Plan Area (i.e., Los Angeles/El Segundo Dunes), a designated Los Angeles County Significant Ecological Area, is located in the western portion of LAX, approximately 1.5 miles to the west of the project site. The Dunes area is well removed from the project site and would not

[9] City of Los Angeles, Ordinance No. 177404, Protected Tree Relocation and Replacement, effective April 23, 2006.

be affected by the proposed project. Therefore, the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

In summary, no impacts to biological resources would occur with the implementation of the proposed project and no further evaluation is required.

V. CULTURAL RESOURCES. *Would the project:*

a. Cause a substantial adverse change in the significance of a historical resource as defined in State CEQA Guidelines §15064.5?

Less Than Significant Impact. LAX began as Mines Field in 1928, when the City of Los Angeles leased 640 acres of the Bennett Rancho. The first permanent building at the airfield was constructed in 1929 by the Curtiss-Wright Flying School. Known as Hangar One, the building was designed by Los Angeles architects Gable and Wyant in a distinctive Spanish Colonial Revival style. Additional construction followed, until there were five hangars, a 2,000-foot paved runway, and administrative offices for the then Department of Aviation. Plans for a new modern airport were derailed by World War II. Wartime production activity at the aircraft manufacturing plants on and around the airport intensified dramatically. In 1942, the federal government assumed control of the airport and the Army Air Corps stationed planes and personnel at the field. After the war, a master plan envisioning two stages of development, an initial stage to immediately accommodate commercial operations and a long-range expansion of the field, was implemented. The Intermediate Facilities, consisting of four passenger terminals, new administrative buildings, and hangars for individual airlines, were opened on the north side of the airfield in 1946.

A boom in commercial air travel followed, accompanied by marked increases in air freight traffic. A new master plan for the Los Angeles International Airport, so named in 1949, began to be developed. In 1956, a new master plan for a "jet-age" airport was developed by an architectural joint venture of several prominent Los Angeles architects. Their innovative scheme incorporated a U-shaped access road flanked by six ticketing buildings that, in turn, were connected via subterranean passageways to remote satellite buildings containing the actual boarding gates. Passenger amenities were located in the individual satellites. The center of the "U" contained parking, an administrative building surmounted by a state-of-the-art control tower at the extreme east end of the site, an eye-catching Theme Building restaurant in the center of the site, and support facilities including a cooling tower, utility plant, and a service building located west of the Theme Building. Inspired by the aesthetics of the Jet Age, the Theme Building quickly became an internationally recognized symbol and centerpiece of the new airport, distinguished by its parabolic arches from which a flying saucer-shaped restaurant was suspended.

Continuing growth of both commercial and freight traffic at the airport has resulted in numerous improvements over the last few decades. These have included the development of two cargo centers, Cargo City (late 1960s) and the Imperial Cargo Complex (1980s); the TBIT (1984); and a new ATCT (1996). The earlier control tower, while considered state-of-the-art in 1961, was considerably altered in 1996 when the FAA relocated to the new ATCT.

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Historical Resources at LAX

Previously identified historical resources at LAX include the following:[10]

- Hangar One (listed on National Register of Historic Places - "National Register", listed in California Register of Historical Resources – "California Register", and a designated Los Angeles Historic Cultural Monument – "HCM") on the southeastern portion of LAX near the northwest corner of Aviation Boulevard and Imperial Highway, approximately 0.9 mile east of the project site.
- Theme Building (eligible for National Register, listed in California Register, and a designated HCM) in the center of the CTA.
- WWII Munitions Storage Bunker (eligible for National Register, eligible for California Register, and eligible for HCM designation) near the western boundary of LAX.
- Intermediate Terminal Complex (eligible for the California Register and eligible for HCM designation) on the south side of Century Boulevard between Sepulveda Boulevard and Airport Boulevard.

Additional evaluation of potential historic resources within and adjacent to the proposed project site was conducted by Historic Resources Group (HRG) in June 2016. The results of the HRG evaluation are summarized below and included in Appendix A of this Initial Study.

Terminals 2 and 3

T2 was originally constructed in 1961 but was demolished and completely reconstructed in place in 1988. T2 is not eligible for historic listing and is not considered a historical resource as defined in the State CEQA Guidelines §15064.5.

T3 was constructed in 1961 and is the only terminal on the north side of the CTA that includes one of the airport's original early-1960s oval-shaped satellite terminals. Terminal 3 has been substantially altered since 1961. Very little remains of the original T3 ticketing/baggage building with the exception of remnant ceramic tile cladding in some locations. T3 has also retained its original underground tunnel with mosaic tile murals connecting the original (1961) ticketing/baggage building to the oval shaped satellite building. The T3 satellite, built in 1961, remains largely intact but its southern façade has been altered by the addition of an aboveground concourse pier connecting the ticketing/baggage claim buildings to the satellite. Alteration of the original ticketing/baggage building and the addition of the connecting concourse in the 1980s have substantially changed the original 1961 configuration of T3 such that its original form is only partially apparent. T3 no longer retains sufficient integrity to be individually eligible for historic listing and is not considered a historical resource as defined in the State CEQA Guidelines §15064.5.

Because the CTA represents a collection of related buildings, structures, objects and sites originally master-planned, designed and constructed as a unified entity, consideration of the property as an historic district was evaluated by HRG. T3, which does not retain sufficient integrity to be eligible for listing as an individual resource, is the most intact of the remaining

[10] City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Specific Plan Amendment Study (January 2013), Section 4.5 – Cultural Resources. Available: http://www.lawa.org/LAXSPAS/Reports.aspx.

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terminal buildings, having retained the original tunnel and many character-defining features in the satellite building. As such, it was evaluated as a contributing resource to a potential historic district (the CTA). The CTA was evaluated by HRG based on the seven aspects of integrity for historic resources as defined by the National Park Service: location, design, setting, materials, workmanship, feeling, and association. The HRG evaluation found that the CTA only retains integrity of location and setting. For any potential historic district, non-contributing buildings, structures, objects and site features located within the CTA would greatly outnumber contributors. The CTA does not exhibit the necessary ratio of contributing elements to non-contributing elements in order to qualify for listing as a historic district under National Register, California Register or local criteria.

Theme Building

The nearest identified historical resource at LAX to the proposed project site is the Theme Building. The Theme Building is situated at the center of the CTA and lies approximately 550 feet southeast of the proposed project site, opposite World Way. It has been determined eligible for listing in the National Register under Criteria Consideration G and Criterion C for its unique architecture, which has become symbolic not only of the airport but of the City of Los Angeles as a whole. In California, a property that has been determined eligible for listing in the National Register is automatically listed in the California Register. The Theme Building was also designated Los Angeles Historic Cultural Monument (HCM) #570 in 1992. The Theme Building is considered a historical resource as defined in State CEQA Guidelines §15064.5.

In addition to the Theme Building, two additional resources in the CTA were identified by HRG as historical resources as defined in State CEQA Guidelines §15064.5: the 1961 ATCT and the sign tower for T6. These resources are described below.

1961 ATCT

The 1961 ATCT is located at the eastern entrance of the CTA and lies approximately 1,200 feet southeast of the proposed project site. The 1961 ATCT served as the air traffic control tower for LAX from the time of its construction until 1996, when a new ATCT located west of the Theme Building was constructed. The 1961 ATCT has a square plan and is 13 stories in height. It is raised on four square concrete piloti (i.e., piers), leaving the ground floor open except for the concrete stair and elevator tower. In the early 2000s, the 1961 ATCT was extensively altered, including the removal of the original aluminum vertical louvers and the addition of metal pipe railings at each floor; however, the 1961 ATCT continues to retain several original features including its square plan, 13 story height, and flat roof; control cab with angled, continuous, fixed aluminum-framed ribbon windows and surrounding roof deck; scored cement plaster spandrels;[11] continuous aluminum grates; and exposed concrete piloti, elevator/stair shaft, and screen wall at the ground floor. The interiors have been almost completely reconfigured and refinished. Because the 1961 ATCT retains its vertical form and control cab, it is still recognizable as a control tower from the period of significance. Despite alterations, it continues to retain integrity of location, feeling and association. The 1961 ATCT remains in its original location at the eastern entrance into the CTA (approximately 1,600 feet southeast of the project site) and retains its historic axial relationship with the Theme Building. It therefore continues to convey its historic association with

[11] A spandrel is the space between the shoulders of adjoining arches and the ceiling or molding above.

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the Jet Age redesign of LAX and the transformative effects of jet travel. For these reasons, the 1961 ATCT appears eligible for local listing as a City of Los Angeles HCM and is a historical resource as defined in State CEQA Guidelines §15064.5.

Terminal 6 Sign Tower

In the early 1960s, Terminals 2 through 7 were identified by free-standing tube steel sign towers bearing each terminal's numerical designation, visible from the access road and central parking areas. Of the six original terminal sign towers, four have been extensively altered, truncated, and relocated. One (T4) is no longer extant. Only one of the six original terminal sign towers, that at T6, remains intact and in situ. The T6 Sign Tower is approximately 1,020 feet southeast of the proposed project site. The T6 Sign Tower is not eligible for the National Register or California Register but is eligible for listing as a Los Angeles HCM as the last terminal identification sign remaining from the period of significance and, therefore, is a historical resource as defined in State CEQA Guidelines §15064.5.

Impacts to Historic Resources

Terminals 2 and 3

The proposed project would involve demolition and new construction at T2 and T3 in the northwest portion of the CTA. The proposed project would not result in the demolition of the underground tunnel associated with the T3 concourse, including the ceramic mosaic tile mural. Neither T2 nor T3 were found eligible for historic listing and these terminals are not considered historic resources for the purposes of CEQA. No historic resources were identified immediately adjacent to T2 or T3.

Theme Building

The proposed new construction would be located north and west of the Theme Building, the closest historic resource to the proposed project site. New construction would be approximately 550 feet at its closest point from the Theme Building and be separate and apart from the Theme Building and would not alter any existing site lines to or from the Theme Building. Views to the Theme Building from the north are brief and intermittent under the existing condition, and these views are obscured by the combination of terminal buildings, including the existing T2 and T3 structures; the World Way structure; and interior parking structures. Construction associated with the proposed project would not impact views of the Theme Building.

1961 ATCT and Terminal 6 Sign Tower

The 1961 ATCT and the sign tower for T6 – the two additional resources within the CTA identified as historical resources per State CEQA Guidelines §15064.5 – are located approximately 1,600 and 1,020 feet, respectively, from new construction associated with the proposed project and would not be adversely affected. Construction and operation of the proposed project would not reduce the integrity or significance the 1961 ATCT or the T6 Sign Tower.

In summary, the proposed project would not have the potential to demolish, relocate, convert, rehabilitate, or reduce the integrity or significance of any historical resources located within the proposed project site or in the vicinity. The proposed project would not have the

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potential to cause a substantial adverse change in the significance of a historical resource as defined in the State CEQA Guidelines § 15064.5 and no mitigation is required.

In summary, the proposed project would not have the potential demolish, relocate, convert, rehabilitate or reduce the integrity or significance of any historic resources located within the proposed project site or in the vicinity. The proposed project would not have the potential to cause a substantial adverse change in the significance of a historical resource as defined in the State CEQA Guidelines §15064.5 and no further evaluation is required.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to State CEQA Guidelines §15064.5?

Potentially Significant Impact. The LAX Master Plan Final EIR identified 36 previously recorded archeological sites within a radius of approximately two miles of LAX, including eight sites located on LAX property.[12] None of the eight sites identified on LAX property are located within the boundaries of the project site or in the immediate vicinity. The project site is a highly disturbed area that has long been, and is currently being, used for airport uses. Any resources that may have existed on the site at one time are likely to have been displaced and, as a result, the overall sensitivity of the site with respect to buried resources is low. Limited excavation into native soils is expected to occur, which would further limit the potential for project implementation to encounter archaeological resources. Nonetheless, the potential exists for the destruction of archaeological resources during construction, which would result in a potentially significant impact to archaeological resources. Therefore, the EIR for the proposed project will evaluate whether construction of the proposed project would cause a substantial adverse change in the significance of an archaeological resource pursuant to State CEQA Guidelines §15064.5.

Operations of the proposed project would not have the potential to impact archaeological resources; therefore, project operations would not have a substantial adverse change in the significance of a historical resource as defined in the State CEQA Guidelines §15064.5, and no further evaluation is required.

c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Potentially Significant Impact. The LAX property lies in the northwestern portion of the Los Angeles Basin, a broad structural syncline with a basement of older igneous and metamorphic rocks overlain by thick younger marine and terrestrial deposits. The older deposits that underlie the LAX area are assigned to the Palos Verdes Sand formation, which is one of the better known Pleistocene age deposits in southern California. The results of the records search conducted as part of the LAX Master Plan EIR indicate that the Palos Verdes Sand formation is a formation with a high potential for yielding unique paleontological deposits. The Palos Verdes Sand formation covers half of the LAX area, beginning at Sepulveda Boulevard and extending easterly beyond the airport. The records search conducted for the LAX Master Plan Final EIR identified the presence of two vertebrate fossil occurrences within the airport area, three more in the immediate vicinity of the airport, and one within approximately 2 miles of the airport. These

[12] City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements, Section 4.9.1 – Historic/Architectural and Archaeological/Cultural Resources, April 2004.

fossils were found at depths ranging from 13 to 70 feet. The deposits within which these resources occur were found to underlie the entire LAX area and surrounding vicinity.[13] Moreover, LAWA's Paleontological Management Treatment Plan[14] indicates that excavation activities at a depth greater than six feet in previously undisturbed soils have the potential to expose and damage potentially important fossils. As discussed for archaeological resources above, the project site is a previously disturbed area and the need for, and/or likelihood of, substantial excavation of native soils is low. Therefore, the likelihood of encountering paleontological resources during site development is considered to be very low. However, similar to archeological resources, the potential exists for the destruction of previously unidentified paleontological resources during construction, which would result in a potentially significant impact to paleontological resources. Therefore, the EIR for the proposed project will evaluate whether construction of the proposed project would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Operation of the proposed project would not have the potential to impact paleontological resources; therefore, operation would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, and no further evaluation is required.

d. Disturb any human remains, including those interred outside of formal or dedicated cemeteries?

Potentially Significant Impact. The project site is developed with aviation-related uses, and the airport is located within a highly urbanized area. Within the project area, traditional burial resources would likely be associated with the Native American group known as the Gabrieliño. Based on previous surveys conducted at LAX and the results of the record searches completed in 1995, 1997, and 2000 for the LAX Master Plan EIR, no traditional burial sites have been identified within the LAX boundaries or in the vicinity. If human remains are encountered, all grading and excavation activities in the vicinity would cease immediately and the appropriate LAWA authority would be notified. Therefore, the likelihood of encountering human remains during site development is considered to be very low. However, similar to archeological resources, the potential exists for the destruction of previously unidentified burial resources during construction, which would result in a potentially significant impact. Therefore, the EIR for the proposed project will evaluate whether construction of the proposed project would disturb any human remains, including those interred outside of formal or dedicated cemeteries.

Operation of the proposed project would not have the potential to disturb human remains; therefore, operation would not disturb any human remains, including those interred outside of formal or dedicated cemeteries, and no further evaluation is required.

[13] City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements, Section 4.9.2 – Paleontological Resources, April 2004.
[14] City of Los Angeles, Los Angeles World Airports, Final LAX Master Plan Mitigation Monitoring & Reporting Program: Paleontological Management Treatment Plan, prepared by Brian F. Smith and Associates, December 2005.

e. Cause a substantial adverse change in the significance of a Tribal cultural resource as defined in Public Resources Code §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:

- **Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code §5020.1(k), or**
- **A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code §5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code §5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.**

Potentially Significant Impact. There are no tribal cultural resources, as defined in Public Resources Code §21074, known to LAWA on the project site, or the proposed construction staging area, construction contractor parking area (LAX Lot F), or in their immediate vicinity. The project site, the proposed construction staging area, and the construction contractor parking area are highly disturbed/developed. In accordance with Public Resources Code §21080.3.1(b), LAWA has initiated consultation with California Native American tribes with a traditional or cultural affiliation with the geographic area of the proposed project, as identified by the Native American Heritage Commission. Consultation is ongoing. Although LAWA received one response to LAWA's initial request for consultation, to date, no Native American tribes have identified any specific tribal cultural resources that may be affected by the proposed project. LAWA will make a final determination regarding the potential for the proposed project to cause a substantial adverse change in the significance of a tribal cultural resource prior to releasing an environmental impact report for the proposed project, and after consultation has concluded, as defined in Public Resources Code §21080.3.2(b). Therefore, the EIR for the proposed project will evaluate whether construction of the proposed project would cause a substantial adverse change in the significance of a Tribal cultural resource as defined in Public Resources Code §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:

- Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code §5020.1(k), or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code §5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code §5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Operation of the proposed project would not have the potential to cause a substantial adverse change in the significance of a Tribal cultural resource as defined in Public Resources Code §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:

- Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code §5020.1(k), or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code §5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code §5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Therefore, no further evaluation is required.

VI. GEOLOGY AND SOILS. *Would the project:*

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

ii. Strong seismic ground shaking?

Less Than Significant Impact. Fault rupture is the surface displacement that occurs along the surface of a fault during an earthquake. The project site is located within the seismically active southern California region; however, there is no evidence of faulting on the project site, and it is not located within an Alquist-Priolo Special Study Zone.[15] Geotechnical literature indicates that the Charnock Fault, a potentially active fault, may be located to the east of the project site. However, evaluation indicates that the Charnock Fault is considered to have low potential for surface rupture independently or in conjunction with movement on the Newport-Inglewood Fault Zone, which is located approximately 3 miles east of the project site.[16]

The design and construction of the proposed project would comply with current Los Angeles Building Code (LABC) and Uniform Building Code (UBC) requirements to reduce potential risks associated with fault rupture or strong seismic ground shaking. The proposed

[15] City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements, Section 4.22 – Earth/Geology, April 2004; City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements, Technical Report 12, Earth/Geology, April 2004.
[16] City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements, Section 4.22 – Earth/Geology, April 2004; City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements, Technical Report 12, Earth/Geology, April 2004.

modernization would improve the quality of service provided to T2 and T3 passengers, and is not anticipated to result in a change in the number of passengers accommodated at LAX than what could otherwise occur in the absence of the project. Therefore, implementation of the proposed project would not increase exposure of people or structures to risks or exacerbate risks associated with rupture of a known earthquake fault or strong seismic ground shaking. As such, potential impacts to people or structures to substantial adverse effects resulting from rupture of a known earthquake fault or strong seismic ground shaking would be less than significant with the implementation of the proposed project and no further evaluation is required.

iii. Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Liquefaction is a seismic hazard that occurs when strong ground shaking causes saturated granular soil (such as sand) to liquefy and lose strength. The susceptibility of soil to liquefy tends to decrease as the density of the soil increases and the intensity of ground shaking decreases. Liquefaction potential is greatest where the groundwater levels are shallow and where submerged loose, fine sands occur within a depth of about 50 feet or less. The depth to groundwater at LAX is approximately 100 feet; the depth to groundwater at monitoring wells located nearest the project site, near the northwest end of T2, is 105 feet to 106 feet.[17] These groundwater depths indicate that the site has a very low susceptibility to liquefaction.[18] Perched groundwater has been noted at several locations and these areas could be subject to liquefaction; however, the overall potential for liquefaction at LAX is considered low.[19]

Strong ground shaking will also tend to compact loose to medium dense deposits of partially saturated granular soils and could result in seismic settlement of foundations and the ground surface at LAX. Due to variations in material type, seismic settlements would tend to vary considerably across LAX, but are generally estimated to be between negligible and 0.5 inch; the overall potential for damaging seismically-induced settlement is considered to be low.[20]

[17] Alta Environmental, Workplan for Additional Groundwater Investigation, Terminal 2 Fuel Hydrant Facility, 250 North World Way, Los Angeles International Airport, July 7, 2015. Available: http://geotracker.waterboards.ca.gov/view_documents.asp?global_id=T10000004322&document_id=5859621.

[18] City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements, Section 4.22 – Earth/Geology, April 2004; City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements, Technical Report 12, Earth/Geology, April 2004.

[19] City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements, Section 4.22 – Earth/Geology, April 2004; City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements, Technical Report 12, Earth/Geology, April 2004.

[20] City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements, Section 4.22 – Earth/Geology, April 2004; City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements, Technical Report 12, Earth/Geology, April 2004.

Seismically-induced ground shaking can also cause slope-related hazards through various processes including slope failure, lateral spreading,[21] flow liquefaction, and ground lurching.[22] Because the project site is flat, there is no potential for slope failures at the project site.

The California Department of Conservation (CDC) is mandated by the Seismic Hazards Act of 1990[23] to identify and map the state's most prominent earthquake hazards in order to help avoid damage resulting from earthquakes. The CDC's Seismic Hazard Zone Mapping Program charts areas prone to liquefaction and earthquake-induced landslides throughout California's principal urban and major growth areas. According to the Seismic Hazard Map for the Inglewood Quadrangle, no potential liquefaction zones are located within the LAX area. Isolated zones of potential seismic slope instability are identified within the dunes area to the west of the proposed project site.[24] Given the flat topography of the project site, it would not be subject to slope instability and the potential instability within the dune area to the west would not pose a risk to the project site.

In summary, the potential for seismic-related ground failure at the proposed project site due to liquefaction is considered low. All construction would be designed in accordance with the provisions of the UBC and the LABC. In addition, the proposed project is not anticipated to result in a change in the number of passengers accommodated at LAX than what could otherwise occur in the absence of the project and, therefore, would increase exposure of people or structures to substantial adverse risks or exacerbate risks associated with seismic-related ground failure. Potential impacts associated with seismic-related ground failure, including liquefaction, would be less than significant with the implementation of the proposed project and no further evaluation is required.

iv. Landslides?

No Impact. The project site and vicinity are relatively flat and are primarily surrounded by existing airport and urban development. Furthermore, the City of Los Angeles Landslide Inventory and Hillside Areas map does not identify any areas in the vicinity of the project site that contain unstable slopes which may be prone to seismically-produced landslides.[25] Implementation of the proposed project would not result in the exposure of people or structures to the risk of landslides or exacerbate landslide risks during a seismic event. Therefore, no impacts resulting

[21] Lateral Spreading: Deformation of very gently sloping ground (or virtually flat ground adjacent to an open body of water) that occurs when cyclic shear stresses caused by an earthquake induce liquefaction, reducing the shear strength of the soil and causing failure and "spreading" of the slope.

[22] Ground Lurching: Ground lurching (and related lateral extension) is the horizontal movement of soil, sediments, or fill located on relatively steep embankments or scarps as a result of earthquake-induced ground shaking. Damage includes lateral movement of the slope in the direction of the slope face, ground cracks, slope bulging, and other deformations.

[23] Public Resources Code 2690-2699.6.

[24] City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements, Section 4.22 – Earth/Geology, April 2004 ; City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements, Technical Report 12, Earth/Geology, April 2004.

[25] City of Los Angeles, Department of City Planning, Safety Element of the City of Los Angeles General Plan, Exhibit C, Landslide Inventory & Hillside Areas in the City of Los Angeles, June 1994.

from landslides would occur with the implementation of the proposed project and no further evaluation is required.

b. Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. The potential for soil erosion on the project site is low due to the level topography of the project site and the fact that the site consists entirely of impervious surfaces. The proposed project would result in the demolition of existing pavement, excavation, and use of fill during construction. LAWA would comply with LABC Sections 91.7000 through 91.7016, which include construction requirements for grading, excavation, and use of fill. Compliance with these requirements would reduce the potential for wind or waterborne erosion. In addition, the LABC requires an erosion control plan to be reviewed by the Department of Building and Safety prior to construction if grading exceeds 200 cubic yards and occurs during the rainy season (between November 1 and April 15). Therefore, potential impacts related to soil erosion would be less than significant and no further evaluation is required.

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less Than Significant Impact. Settlement of foundation soils beneath engineered structures or fills typically results from the consolidation and/or compaction of the foundation soils in response to the increased load induced by the structure or fill. The presence of undocumented and typically weak artificial fill at LAX creates the potential for settlement.[26] The Lakewood Formation also includes some silt and clay layers prone to settlement. However, foundation design features and construction methods can reduce the potential for excessive settlement at LAX, and the overall potential for damaging settlement is considered low.[27] Therefore, implementation of the proposed project would not adversely affect a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse. The potential impact would be less than significant with the implementation of the proposed project and no further evaluation is required. See also Sections VI.a.iii and VI.a.iv above.

d. Be located on expansive soil, as defined in Table 18-1-B of the Los Angeles Building Code (2002), creating substantial risks to life or property?

Less Than Significant Impact. Expansive soils are typically composed of certain types of silts and clays that have the capacity to shrink or swell in response to changes in soil moisture content. Shrinking or swelling of foundation soils can lead to damage to foundations and engineered structures including tilting and cracking. Fill materials located in some portions of the LAX area could be prone to expansion, and some portions of the Lakewood Formation found

[26] City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements, Section 4.22 – Earth/Geology, April 2004; City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements, Technical Report 12, Earth/Geology, April 2004.

[27] City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements, Section 4.22 – Earth/Geology, April 2004; City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements, Technical Report 12, Earth/Geology, April 2004.

beneath the eastern portion of LAX may also be susceptible, due to their higher content of clay and silt.[28] The new building area that would be constructed as part of the proposed project could be subject to the effects of expansive soils. As project construction would occur in accordance with LABC Sections 91.7000 through 91.7016, which include construction requirements for grading, excavation, and foundation work, the potential for hazards to occur as a result of expansive soils would be minimized. The design and construction of the proposed project would comply with current UBC requirements and would not result in any structural or engineering modifications that could increase exposure of people or structures to risk associated with expansive soils. The potential impact would be less than significant with the implementation of the proposed project and no further evaluation is required.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The project site is located in an urbanized area where wastewater infrastructure is currently in place. The proposed project would not use septic tanks or alternative wastewater disposal systems. Therefore, no impacts related to the ability of on-site soils to support septic tanks or alternative wastewater systems would occur with the implementation of the proposed project and no further evaluation is required.

VII. GREENHOUSE GAS EMISSIONS. *Would the project:*

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

a-b. Potentially Significant Impact. The proposed project would generate greenhouse gas (GHG) emissions from vehicle exhaust associated with construction-related activities, including off-road construction equipment, construction worker commuting, and haul/vendor truck trips. The proposed project EIR will evaluate whether construction of the proposed project would: (1) generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; and/or (2) conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHGs.

Operations

Existing Plans, Policies, and Regulations

State Plans and Policies

Executive Order S-3-05

California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following GHG emission reduction targets for California: by 2010,

[28] City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements, Section 4.22 – Earth/Geology, April 2004; City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements, Technical Report 12, Earth/Geology, April 2004.

reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels.

Executive Order B-30-15

Governor Brown issued Executive Order B-30-15 on April 29. 2015. Executive Order B-30-15, among other things, establishes a new interim statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 in order to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050. It further orders that all state agencies with jurisdiction over sources of GHG emissions to implement measures, pursuant to statutory authority, to achieve reductions of GHG emissions to meet the 2030 and 2050 GHG emissions reductions targets. It also directs the California Air Resources Board (CARB) to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent (MMTCO2e).

California Assembly Bill 32 (AB 32)

AB 32, titled The California Global Warming Solutions Act of 2006 and signed by Governor Schwarzenegger in September 2006, requires CARB to adopt regulations to require the reporting and verification of Statewide GHG emissions and to monitor and enforce compliance with the program. In general, the bill requires CARB to reduce Statewide GHG emissions to the equivalent of those in 1990 by 2020. CARB adopted regulations in December 2007 for mandatory GHG emissions reporting. On August 24, 2011, CARB adopted the scoping plan indicating how emission reductions will be achieved; the First Update to the Climate Change Scoping Plan was published on May 15, 2014. Part of the scoping plan includes an economy-wide cap-and-trade program. The final cap-and-trade plan was approved on October 21, 2011 and went into effect on January 1, 2013.

Regional Plans, Policies, and Regulations

SCAQMD Guidance

SCAQMD has convened a GHG CEQA Significance Threshold Working Group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. Members of the working group include government agencies implementing CEQA and representatives from various stakeholder groups that will provide input to the SCAQMD staff on developing GHG CEQA significance thresholds. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for industrial projects where the SCAQMD is lead agency. The SCAQMD has not adopted guidance for CEQA projects under other lead agencies or for other land uses or project types.

Regional Transportation Plan/Sustainable Communities Strategy

In accordance with Senate Bill 375, SCAG developed a Sustainable Communities Strategy to reduce per capita GHG emissions within its jurisdiction. SCAG adopted the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) on April 4, 2012, and subsequent amendments of project lists were approved on June 6, 2013 and September 11, 2014.[29] The 2012-2035 RTP/SCS aimed to reduce emissions from transportation sources to comply with

[29] Southern California Association of Governments, Regional Transportation Plan Homepage. Available: http://rtpscs.scag.ca.gov/Pages/default.aspx, accessed July 15, 2016.

SB 375 and meet SB 375 regional GHG emission reduction targets for light duty vehicles, improve public health, and reduce air emissions. On April 7, 2016, SCAG's Regional Council adopted the 2016-2040 RTP/SCS.[30]

The 2016 Plan is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The Plan charts a course for closely integrating land use and transportation. It outlines more than $556.5 billion in transportation system investments through 2040.

Green Building Standards

The 2013 California Green Building Standards Code (24 CCR Part 11, CALGreen) took effect January 1, 2014. The Green Building Standards will require that every new building constructed in California reduce water consumption by 20 percent, divert 50 percent of construction waste from landfills, and install low-pollutant-emitting materials. They also require separate water meters for nonresidential buildings' indoor and outdoor water use, with a requirement for moisture-sensing irrigation systems for larger landscape projects and mandatory inspections of energy systems (e.g., heat furnace, air conditioner, and mechanical equipment) for nonresidential buildings larger than 10,000 square feet to ensure that all are working at their maximum capacity and according to their design efficiencies.

Local Plans, Policies, and Regulations

Green LA

In May 2007, the City of Los Angeles introduced Green LA: An Action Plan to Lead the Nation in Fighting Global Warming (Green LA).[31] Green LA presents a framework targeted to reduce the City's GHG emissions by 35 percent below 1990 levels by 2030. The plan calls for an increase in the City's use of renewable energy to 35 percent by 2020 in combination with promoting water conservation, improving the transportation system, reducing waste generation, greening the ports and airports, creating more parks and open space, and greening the economic sector. Green LA identifies objectives and actions in various focus areas, including airports. The goal for LA's airports is to "green the airports," and the following actions are identified: 1) fully implement the Sustainability Performance Improvement Management System (discussed below); 2) develop and implement policies to meet the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) green building rating standards in future construction; 3) improve recycling, increase use of alternative fuel sources, increase use of recycled water, increase water conservation, reduce energy needs, and reduce GHG emissions; and 4) evaluate options to reduce aircraft-related GHG emissions.

Climate LA

In 2008, the City of Los Angeles followed up Green LA with an implementation plan called Climate LA – Municipal Program Implementing the Green LA Climate Action Plan (Climate

[30] Southern California Association of Governments, Final 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy: A Plan for Mobility, Accessibility, Sustainability and a High Quality of Life, Adopted April 7, 2016. Available: http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx.

[31] City of Los Angeles, Green LA: An Action Plan to Lead the Nation in Fighting Global Warming, May 2007.

LA).[32] A Departmental Action Plan for LAWA is included in Climate LA, which identifies goals to reduce CO_2 emissions 35 percent below 1990 levels by 2030 at LAX and the other LAWA airports, implement sustainability practices, and develop programs to reduce the generation of waste and pollutants. Actions are specified in the areas of aircraft operations, ground vehicles, electrical consumption, building, and other actions.

Executive Directive No. 10

In July 2007, Mayor Antonio Villaraigosa issued Executive Directive No. 10[33] regarding environmental stewardship practices. Executive Directive No. 10 requires that City departments, including LAWA, create and adopt a "Statement of Sustainable Building Policies," which should encompass sustainable design, energy and atmosphere, materials, and resources, water efficiency, landscaping, and transportation resources. In addition, City departments and offices must create and adopt sustainability plans that include all the policies, procedures, programs, and policies that are designed to improve internal environmental efficiency. Finally, City departments are required to submit annual sustainability reports to the Mayor for review.

City of Los Angeles Green Building Code (LAGBC)

In December 2013, the Los Angeles City Council approved Ordinance No. 182,849, which updated Chapter IX of the Los Angeles Municipal Code (LAMC) by amending certain provisions of Article 9 to incorporate by reference portions of the 2013 CALGreen Code and also added other miscellaneous conservation-related measures to the LAGBC for residential and non-residential development. The requirements of the adopted LAGBC apply to new building construction, building renovations, and building additions within the City of Los Angeles. Specific mandatory requirements and elective measures are provided for three categories: (1) low-rise residential buildings; (2) nonresidential and high-rise residential buildings; and (3) additions and alterations to nonresidential and high-rise residential buildings. Key measures in the LAGBC related to GHG emissions that apply to nonresidential buildings include, but are not limited to the following:

- Transportation Demand – Designated parking for any combination of low emitting, fuel-efficient, and carpool/vanpool vehicles shall be provided.
- Energy Conservation – Electric vehicle supply wiring for a minimum of 7 percent of the total number of parking spaces shall be provided.
- Energy Conservation – Energy conservation for new buildings must meet or exceed California Energy Commission (CEC) requirements set forth in the California Building Energy Efficiency Standards.
- Renewable Energy – Future access, off-grid prewiring, and space for electrical solar systems shall be provided.

[32] City of Los Angeles, Climate LA - Municipal Program Implementing the Green LA Climate Action Plan, 2008.

[33] Antonio R. Villaraigosa, Mayor, Executive Directive No. 10, Subject: Sustainable Practices in the City of Los Angeles, July 18, 2007. Available: http://lacity.cityofla.acsitefactory.com/sites/g/files/wph281/f/mayorvillaraigosa331283124_ 07182007.pdf, accessed July 15, 2016.

LAWA Sustainability Plan

LAWA's Sustainability Plan,[34] developed in April 2008, describes LAWA's current sustainability practices and sets goals and actions that LAWA will undertake to implement the initiatives described above (Green LA, Climate LA, and LAGBC). The Sustainability Plan presents initiatives for the fiscal year 2008-2009 and long-term objectives and targets to meet the fundamental objectives identified above.

LAWA has also developed Sustainable Airport Planning, Design and Construction Guidelines for Implementation on All Airport Projects (LAWA Guidelines).[35] The LAWA Guidelines were developed to provide a comprehensive set of performance standards focusing on sustainability specifically for Airport projects on a project-level basis. A portion of the LAWA Guidelines is based on the LEED® rating systems for buildings. The LAWA Guidelines incorporate a "LAWA-Sustainable Rating System" based on the number of planning and design points and construction points a project achieves, based on the criteria and performance standards defined in the LAWA Guidelines.

Through these initiatives, LAWA has taken steps to increase its sustainability practices related to daily airport operations, many of which directly or indirectly contribute to a reduction in GHG emissions. Actions that LAWA has been undertaking include promoting and expanding the FlyAway non-stop shuttle service to the airport in an effort to reduce the number of vehicle trips to the airport, establishing an employee Rideshare Program, use of alternative fuel vehicles, purchasing renewably- generated Green Power from LADWP, and reducing electricity consumption by installing energy-efficient lighting, variable demand motors on terminal escalators, and variable frequency drives on fan units at terminals and LAWA buildings.

All building projects in the City of Los Angeles are subject to the LAGBC, which is based on CALGreen with some modifications unique to the City of Los Angeles. The LAGBC is a code-requirement that is part of Title 24, and is enforced by the Los Angeles Department of Building and Safety (LADBS).

Given that the LAGBC has replaced LEED® in the Los Angeles Municipal Code, LAWA has based its new sustainable construction standards on the mandatory and voluntary tiers defined in the LAGBC. All building projects with an LADBS permit-valuation over $200,000 shall achieve LAGBC Tier 1 conformance, to be certified by LADBS inspector during final plan check (on the issued building permit) and validated by the LADBS inspector during final inspection (on the Certificate of Occupancy). Tier 1 refers to specific practices that are to be incorporated into projects to "achieving enhanced construction levels by incorporating additional green building measures." Should a project pose unique issues/circumstances based on the scope and/or location of work, LAWA may require more prescriptive approaches to resolving issues.

[34] City of Los Angeles, Los Angeles World Airports, Los Angeles World Airports Sustainability Plan, April 2008.

[35] City of Los Angeles, Los Angeles World Airports, Sustainable Airport Planning, Design and Construction Guidelines for Implementation on All Airport Projects, Version 3.1, January 2008.

Operational GHG Impacts

Potential changes to operational surface traffic and airfield operating conditions associated with the proposed project, and that could affect GHG emissions, are evaluated under Sections XVI.a-b and c. As discussed therein, the proposed project is a series of improvements to modernize the concourses at T2 and T3, as well as the demolition and reconstruction of their respective passenger processors (ticketing buildings—T2.5 and T3.5). The proposed project would not change existing T2 or T3 access and curbside conditions. Linear length and width of the curbside facilities would not change compared to existing conditions, and as result, curbside capacity at each of the CTA arrivals (lower level) and departures (upper level) curbsides in front of T2 and T3, and their respective ticketing buildings, would remain unchanged compared to existing conditions.

Improvements to the facilities at T2 and T3, and their respective ticketing buildings, are intended to provide improved passenger experience, convenience, and quality of service through renovations of aging terminal facilities. The proposed project would not increase the terminal linear frontage available to park passenger aircraft around T2 and T3. However, the proposed project improvements would allow the reconfiguring of the passenger gate positions and aircraft parking layouts around T2 and T3 to match aircraft fleet requirements within the constraints of the existing terminal linear frontage.

Implementation of the proposed project is not anticipated to result in a change in the number of passengers accommodated at LAX than what could otherwise occur in the absence of the project. Although the proposed project would result in up to five additional gates, the airport would continue to operate within the existing limitations, and passengers would not change their modes of transportation or their arrival and departure distribution patterns as a result of the proposed project. As such, potential impacts on the CTA roadways system and on the off-airport roadway network in the vicinity of LAX would be less than significant and operation of the proposed project would not: (1) generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; and/or (2) conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHGs.

As modernization and relocation of aircrafts within the existing terminals occurs under existing conditions, it is anticipated that the overall number of operations at LAX would not be significantly affected as a result of the proposed project. Implementation of the proposed project is not anticipated to result in a change to air traffic procedures for airspace route and runway assignment, including during noise-sensitive hours, or routing of aircraft between the runways and their parking position. FAA air traffic control would continue to allocate runway assignment in order to balance runway use and maximize the efficiency of the airport.

As discussed in Section 4.0, Project Description, the proposed project would meet the requirements of the California Green Building Standards Code (CALGreen) Tier 1, at a minimum, to reduce energy consumption. Heating and cooling of the new/modernized facilities would be provided by LAWA's state-of-the-art Central Utility Plant, which incorporates a number of efficiencies that conserve energy and reduce pollutant emissions. In order to comply with CALGreen Tier 1 standards, the terminal would include efficient lighting fixtures and controls with occupancy sensors to reduce energy consumption during off-peak hours, and the terminal's

heating, ventilation, and air conditioning controls would be designed to reset temperatures to maximum efficiency without sacrificing occupant comfort. Where possible, coated glass that minimizes heat gain would be used on exterior walls, and building materials and furnishings would be made of recycled content, and would consist of low-emitting paints, adhesives, carpets, and sealants, where feasible. Compliance with CALGreen Tier 1 standards would reduce energy consumption associated with the project, which would, in turn, reduce project-related GHG emissions. By complying with these standards, the proposed project would be consistent with City plans, policies, and regulations pertaining to GHG emissions, including Green LA, Climate LA, LAGBC, and LAWA's Sustainability Plan.

In general, GHG plans issued at the state and regional level are aimed at setting statewide and regional policy and are not directed at individual projects. GHG emissions from operation of the proposed project would not conflict with statewide and regional plans, such as Executive Order S-3-05 and Assembly Bill 32, whose purpose is to reduce statewide GHG emissions to 1990 levels by 2020; Executive Order B-30-15, which calls for a reduction in statewide GHG emissions to 40 percent below 1990 levels by 2030; or the SCAG 2016-2040 RTP/SCS, which outlines a vision for land use and transportation for the region that would achieve SB 375 GHG emission reduction goals for light duty vehicles.

In summary, operation of the proposed project would comply with City plans, policies, and regulations pertaining to GHG emissions. Therefore, operation of the proposed project would not conflict with applicable plans, policies or regulations adopted for the purpose of reducing the emissions of greenhouse gases. Therefore, the potential impact would be less than significant and no further evaluation is required.

VIII. HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

a-b. Less Than Significant Impact. The proposed project would not result in any significant changes in the use of hazardous materials at the project site. Construction and operation of the proposed project would involve some use of hazardous materials, including vehicle fuels, oils, transmission fluids, cleaning solvents, and architectural coatings. These types of materials are not acutely hazardous, and storage, handling, and disposal of these materials are strictly regulated. Compliance with existing federal, state and local regulations and routine precautions would reduce the potential for accidental releases of a hazardous material to occur and would minimize the impact of an accident should one occur. Therefore, impacts associated with the routine use of hazardous materials would be less than significant.

Some hazardous building materials, such as asbestos-containing floor tiles and/or mastic and lead-based paint, may be removed during demolition of portions of the buildings. In accordance with LAWA standard practices for development projects at LAX and with City requirements, prior to the issuance of any permit for the demolition of alteration of any existing structure(s), LAWA would provide a letter to the Los Angeles Department of Building and Safety

from a qualified asbestos abatement consultant indicating that no Asbestos-Containing Materials (ACMs) are present in the building. If ACMs are found to be present, they would be abated in compliance with SCAQMD Rule 1403 as well as all other applicable state and federal rules and regulations. SCAQMD Rule 1403 specifies work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of ACM. The rule's requirements for demolition and renovation activities include asbestos surveying, notification, ACM removal procedures and time schedules, ACM handling and clean-up procedures, and storage, disposal, and landfilling requirements for asbestos-containing waste materials (ACWM). In addition, prior to issuance of any permit for the demolition or alteration of any existing structure(s), a lead-based paint survey would be performed following protocols of the Los Angeles Department of Building and Safety designed to detect all lead-based paint. Should lead-based paint materials be identified, standard handling and disposal practices would be implemented pursuant to Occupational Safety and Health Act (OSHA) and California Occupational Safety and Health Act (CalOSHA) regulations to limit worker and environmental risks. Compliance with existing federal, state and local regulations and routine precautions would reduce the potential for hazards to the public or the environment through the routine disposal or accidental release of hazardous building materials. Therefore, potential impacts would be less than significant.

In summary, construction and operation of the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials nor create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. The potential impact would be less than significant with the implementation of the proposed project and no further evaluation is required.

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. As discussed in Sections VIII.a-b above, a minimal increase in the handling of hazardous materials would occur during construction and no increase is expected during operation of the proposed project. Moreover, there are no schools located or proposed within one-quarter mile of the project site. Therefore, no impacts related to the emitting of hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school would occur with the implementation of the proposed project and no further evaluation is required.

d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less Than Significant Impact. An Environmental Data Resources (EDR) regulatory database review, pursuant to Government Code Section 65962.5, was performed for the central area of LAX, which includes the northern terminals, in November 2015.[36] The database review

[36] Environmental Data Resources Inc. (EDR), EDR Data Map Area Study, Central LAX, Los Angeles, California, November 24, 2015.

was supplemented by information on sites with known contamination that have been identified by LAWA.

A review of government agency lists of hazardous materials sites provided in the EDR Report indicates that six incidents involving minor releases of hazardous materials have occurred in the area of Terminal 3. The spills/releases were cleaned-up by airport and/or Fire Department personnel and no further remediation actions are required.

Contamination (total petroleum hydrocarbon [TPH] in the jet fuel range and volatile organic compounds [VOCs]) has been detected in the soil beneath the hydrant fuel system to the north/northwest end of the Terminal 2 concourse. This site is identified in the EDR database review as the LAWA Terminal Two Fuel Hydrant Facility (hereafter referred to as the Terminal 2 Fuel Hydrant Facility). While the estimated center of the impacted soil and groundwater is located outside of the T2 apron, the southerly/southwesterly portion of the estimated area of contamination extends beneath the northwest portion of the T2 apron. Environmental investigations associated with the Terminal 2 Fuel Hydrant Facility have been ongoing since 2010. During preliminary subsurface investigations, four monitoring wells were installed and monitored to determine the extent of groundwater contamination. The depth to groundwater at monitoring wells located at the site near the northwest end of T2 is approximately 105 feet.[37] Portions of the groundwater plumes appear to be defined; however, additional assessment, including the installation and monitoring of three additional groundwater wells, is necessary. Further characterization of the site to identify the vertical and lateral extent of soil contamination and lateral extent of groundwater contamination is underway by LAWA under Los Angeles Regional Water Quality Control Board (LARWQCB) oversight. In addition, ongoing monitoring and possible remediation under LARWQCB's oversight would be coordinated with construction and operation of the proposed project; however, the development, implementation, monitoring, and enforcement of the remediation plan for the subject contamination is separate from the proposed project and would occur regardless of whether the project is approved.

In March 2015, an estimated 500 gallons of jet fuel was released from the Terminal 1 Valve Vault, located to the north of T2. This site is within the same area as the Terminal 2 Fuel Hydrant Facility site. Further characterization of the site to identify the extent of contamination is underway by LAWA.

The proposed project would involve excavation within the T2 apron area. Based on the known contamination in the T2 apron area at the north end of the T2 concourse (i.e., at the Terminal 2 Fuel Hydrant Facility site/Terminal 1 Valve Vault site), contaminated soils may be encountered during construction.

As discussed in Section 4.0, Project Description, construction activities for the proposed project would extend down to a maximum depth of approximately 16 feet. As indicated above, the depth to groundwater at monitoring wells located at the site near the northwest end of T2 is approximately 105 feet. As such, construction of the proposed project is not expected to involve dewatering and, thus, contaminated groundwater would not be encountered.

[37] Alta Environmental, Workplan for Additional Groundwater Investigation, Terminal 2 Fuel Hydrant Facility, 250 North World Way, Los Angeles International Airport, July 7, 2015. Available: http://geotracker.waterboards.ca.gov/view_documents.asp?global_id=T10000004322&document_id=5859621.

Releases of any hazardous materials are subject to a complex set of regulatory and reporting requirements, including notification to the City of Los Angeles Fire Department (LAFD) and the state Office of Emergency Services (OES). Remediation of contamination is subject to stringent oversight by federal, state, county, and city agencies, depending on the nature of contamination. The LAFD oversees contamination resulting from leaking underground storage tanks (USTs) and other fueling infrastructure. The LARWQCB has the authority to require the remediation of sites where groundwater quality may be degraded by hazardous materials or substances releases from USTs or other sources. These agencies require that remediation continue until regulatory requirements are met and closure is granted. Remediation of contamination has the potential to expose workers to hazardous materials or substances. The South Coast Air Quality Management District regulates emissions from soil remediation activities through Rule 1166, Volatile Organic Compound Emissions from Decontamination of Soil. This rule requires development and approval of a mitigation plan, monitoring of VOC concentrations, and implementation of the mitigation plan if VOC-contaminated soil is detected. Worker safety and health are also regulated by the federal Occupational Safety and Health Act (OSHA) of 1970 and the California Occupational Safety and Health Act (CalOSHA). OSHA and CalOSHA standards establish exposure limits for certain air contaminants. Exposure limits define the maximum amount of hazardous airborne chemicals to which an employee may be exposed over specific periods. When administrative or engineering controls cannot achieve compliance with exposure limits, protective equipment or other protective measures must be used. Employers are also required to provide a written health and safety program, worker training, emergency response training, and medical surveillance.

In addition to these laws and regulations, the technical specifications for construction projects at LAX include provisions specific to "Removal and Disposal of Petroleum Hydrocarbon-Impacted Soils" that delineate procedures and requirements relative to the identification, evaluation, management, and treatment/disposal of soils impacted by jet fuels and other hydrocarbons.

Compliance with regulations governing remediation of contaminated materials, including ongoing LARWQCB oversight, as appropriate, would ensure that implementation of the proposed project on a site with known contamination would not create a significant hazard to the public or the environment. This potential impact would be less than significant and no further evaluation is required.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

Less Than Significant Impact. The project site is located within a public airport. Numerous safeguards are required by law to minimize the potential for, and the effects from, an accident if one were to occur. FAA's Airport Design Standards[38] establish, among other things, land use related guidelines to protect people and property on the ground, including establishment of safety zones that keep areas near runways free of objects that could interfere with aviation activities.

[38] Federal Aviation Administration, FAA Advisory Circular (AC) 150/5300-13A, Airport Design, February 26, 2014. Available: http://www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5300-13/.

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Section 12.50 of the Comprehensive Zoning Plan of the City of Los Angeles regulates building height limits and land uses within the Hazard Area established by the Planning and Zoning Code to protect aircraft approaching and departing from LAX from obstacles. In addition to the many safeguards required by law, LAWA and tenants of LAX maintain emergency response and evacuation plans that also serve to minimize the potential for and the effects of an accident.

The proposed project includes an operation control center at T3 to coordinate aircraft activity (arrival and departure of aircraft) at the T2 and T3 gate areas as aircraft taxi to and from gates. All proposed project buildings/structures, including the operation control center, would be designed in accordance with FAA's Airport Design Standards to ensure that the buildings/structures do not interfere with ATCT activities or affect airfield safety.

LAWA has reviewed and analyzed recommendations from infrastructure experts regarding methods to mitigate the potential impact from improvised explosive devices associated with terrorist activities and has incorporated various security measures into the design of the proposed terminal facilities. Details regarding the security measures considered and incorporated is considered Sensitive Security Information under federal law and is therefore not subject to disclosure.

Construction activities would be coordinated with FAA through the use of Form FAA 7460-1 (Notice of Proposed Construction or Alteration), which requires that any potential hazards to air navigation be addressed. All construction activities would comply with applicable aviation-related safeguards, and thus would not create a safety hazard. Therefore, potential impacts to safety for people working or residing in the project area would be less than significant with the implementation of the proposed project and no further evaluation is required.

f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for the people residing or working in the project area?

No Impact. The project site is not located within the vicinity of a private airstrip but rather within a public airport. See Section VIII.e above. Therefore, implementation of the proposed project would not result in a safety hazard for people residing or working within the vicinity of a private airstrip. No impact would occur with the implementation of the proposed project and no further evaluation is required.

g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. LAWA and tenants of LAX maintain emergency response and evacuation plans to minimize the potential for and the effects of an accident, should one occur. Construction activities at the proposed staging area and at the proposed project site would comply with LAWA and FAA guidelines and procedures that are in place to limit the impacts of construction at the airport, including the potential to affect emergency response. As discussed in Sections XVI.d-e, no permanent lane or road closures either on-airport or off-airport would be required for construction. Temporary lane closures in the CTA may be required to facilitate some construction activities. In accordance with LAWA practice, access routes in the vicinity of the project site would be kept clear and unobstructed at all times in accordance with FAA, State Fire

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Marshal, and Los Angeles Fire Code regulations;[39] therefore, any temporary lane closures are not anticipated to impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plans. In addition, LAWA would submit a Notice of Proposed Construction or Alteration to FAA in advance of construction as required by 14 CFR §77.9. Therefore, potential construction-related impacts related to emergency response plans or emergency evacuation plans would be less than significant with the implementation of the proposed project and no further evaluation is required.

h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. The project site is located within a developed airport and surrounded by airport uses, urbanized areas, and the Los Angeles/El Segundo Dunes. There are no fire hazard areas containing flammable brush, grass, or trees on the project site. Furthermore, the project site is not within a City of Los Angeles Wildfire Hazard Area, as delineated in the Safety Element of the General Plan.[40] Therefore, implementation of the proposed project would not result in the exposure of people or structures to hazards associated with wildland fires and no further evaluation is required.

IX. HYDROLOGY AND WATER QUALITY. *Would the project:*

a. Violate any water quality standards or waste discharge requirements?

Less Than Significant Impact. The agency with jurisdiction over water quality within the project area is the LARWQCB. The Clean Water Act (CWA) prohibits the discharge of pollutants to waters of the United States from any point source unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. In accordance with the CWA, the project site is within the region covered by NPDES Permit No. CAS004001 issued by the LARWQCB. As part of the storm water program associated with the NPDES Phase 1 Permit, LARWQCB adopted the Standard Urban Storm Water Mitigation Plan (SUSMP) to address storm water pollution from new development and redevelopment projects. A recent change to the permit puts primary emphasis on Low Impact Development (LID) practices over treatment control BMPs. The Stormwater LID Ordinance approved by the City of Los Angeles outlines requirements for providing LID strategies for new development and redevelopment projects.[41]

Implementation of the proposed project would not result in an increase in impervious surfaces at the project site, as the site is currently developed and fully paved. However, construction would result in site disturbance associated with site excavation and modification/replacement of some apron/aircraft paving. These construction activities would require preparation of a Storm Water Pollution Prevention Plan (SWPPP) to address construction-

[39] FAA FAR Sections 139.315–139.319—Air Rescue and Firefighting (ARFF); State of California Uniform Fire Code Article 10 (Fire Protection Systems and Equipment) and Article 12 (Maintenance of Means and Egress and Emergency Escapes); and Article 7 of Chapter V of the Los Angeles Municipal Code (see in particular Chapter 4, Emergency Planning and Preparedness).

[40] City of Los Angeles, Department of City Planning, Safety Element of the City of Los Angeles General Plan, Exhibit D, Selected Wildfire Hazard Areas In the City of Los Angeles, April 1996.

[41] City of Los Angeles, Ordinance No. 181899, Low Impact Development (LID) Strategies, October 7, 2011. Available: http://www.lastormwater.org/wp-content/files_mf/finallidordinance181899.pdf.

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related surface water quality impacts and delineate water quality control measures (i.e., Best Management Practices or BMPs) to address those impacts. Temporary construction BMPs could include, but are not limited to, the following: soil stabilization (erosion control) techniques; sediment control methods; contractor training programs; material transfer practices; waste management practices; roadway cleaning/tracking control practices; vehicle and equipment practices; and fueling practices.

As noted above, construction of the proposed project would occur on a site that is currently developed and fully paved. The proposed project and associated facilities would not significantly alter existing drainage patterns or surface water runoff quantities on the project site and would not violate any water quality standards or waste discharge requirements. Moreover, implementation of the proposed project would require compliance with the City's LID Ordinance, based on the extent of redevelopment and new development proposed, which would serve to improve existing hydrology and water quality at the project site. The LID Ordinance emphasis on infiltration, stormwater capture and reuse, biofiltration, and other such BMPs, the applicability and design of which would be determined during more detailed levels of planning and engineering for the project, provides a basis to reduce the amount of surface runoff compared to existing conditions and to provide treatment of surface runoff. Based on the above, potential impacts related to water quality would be less than significant with the implementation of the proposed project and no further evaluation is required.

b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned land uses for which permits have been granted)?

No Impact. The project site is located within the West Coast Groundwater Basin. Groundwater beneath the project site is not used for municipal or agricultural purposes. Construction and operation of the proposed project is not expected to involve dewatering and, thus, would not deplete groundwater supplies. The proposed project would not increase the amount of impervious surface on the project site and, as noted above, compliance with the City's LID Ordinance requirements would serve to increase surface water infiltration at the project site. Therefore, no impacts to groundwater supplies or groundwater recharge would occur with the implementation of the proposed project and no further evaluation is required.

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

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f. Otherwise substantially degrade water quality?

c-f. Less Than Significant Impact. As noted in Section IX.a above, the proposed project would be constructed on a site that is currently impervious. Implementation of the proposed project would not alter drainage patterns in a manner that would result in erosion or siltation offsite or increase the rate or amount of surface runoff in a manner that would result in flooding on- or offsite. Moreover, with implementation of a SWPPP and compliance with regulatory requirements, the project would not substantially degrade water quality. Therefore, potential impacts to water quality would be less than significant with the implementation of the proposed project and no further evaluation is required.

g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

g-h. No Impact. No 100-year flood hazard areas are located within LAX.[42,43] Further, the proposed project does not involve the construction of housing. Therefore, no impacts resulting from the placement of housing or other structures within a 100-year flood hazard area would occur with the implementation of the proposed project and no further evaluation is required.

i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact. Please see Sections IX.g-h above. In addition, as delineated on the City of Los Angeles Inundation and Tsunami Hazard Areas map,[44] the project site is not within a boundary of an inundation area from a flood control basin, nor is it located within the downstream influence of any levee or dam. Therefore, no impacts due to the exposure of people or structures to a risk of loss, injury, or death involving flooding as a result of the failure of a levee or dam would occur with the implementation of the proposed project and no further evaluation is required.

j. Inundation by seiche, tsunami, or mudflow?

No Impact. The project site is approximately 2 miles east of the Pacific Ocean and is not delineated as a potential inundation or tsunami impacted area in the City of Los Angeles Inundation and Tsunami Hazard Areas map.[45] Mudflows are not a risk as the project site is located on, and is surrounded by, relatively level terrain and urban development. Therefore, no impacts resulting from inundation by seiche, tsunami, or mudflow would occur with the implementation of the proposed project and no further evaluation is required.

[42] City of Los Angeles, Department of City Planning, Safety Element of the City of Los Angeles General Plan, Exhibit F, 100-Year & 500-Year Flood Plains in the City of Los Angeles, March 1994.
[43] Federal Emergency Management Agency, Letter of Map Revision Based on Fill 218-65-R, Map Panel Affected: 0601370089 D, September 6, 2002.
[44] City of Los Angeles, Department of City Planning, Safety Element of the City of Los Angeles General Plan, Exhibit G, Inundation & Tsunami Hazard Areas in the City of Los Angeles, March 1994.
[45] City of Los Angeles, Department of City Planning, Safety Element of the City of Los Angeles General Plan, Exhibit G, Inundation & Tsunami Hazard Areas in the City of Los Angeles, March 1994.

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X. LAND USE AND PLANNING. *Would the project:*

a. Physically divide an established community?

No Impact. The project site is located entirely within the boundaries of a developed airport in an urbanized area and development of the project site within the airport would not disrupt or divide the physical arrangement of an established community. Therefore, no impacts resulting from physically dividing an established community would occur with the implementation of the proposed project and no further evaluation is required.

b. Conflict with applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. Land use designations and development regulations applicable to LAX are set forth in the LAX Plan[46] and LAX Specific Plan,[47] both approved by the Los Angeles City Council in December 2004 and subsequently amended. The project site is in an area designated in the LAX Plan as "Airport Airside." Within the LAX Specific Plan, the site is in an area designated as within the Airport Airside Sub-Area and zoned LAX – A Zone: Airport Airside Sub-Area. Section 9.B of the LAX Specific Plan delineates the permitted uses within the Airport Airside Sub-Area. Of the numerous uses listed, the following permitted uses are located in the proposed project area:

- Airline clubs, retail uses, and restaurants
- Establishments for the sale and service of alcoholic beverages for on-site and off-site consumption
- Incidental retail uses - permanent or temporary retail uses, which may include kiosks and carts
- Passenger handling facilities, including but not limited to baggage handling and processing, passenger holdrooms, boarding gates, ticketing and passenger check-in functions
- Security-related equipment and facilities
- Uses customarily incident to any of the above uses, and accessory buildings or uses

The proposed project represents near-term improvements that would improve the efficient operation and quality of passenger service in T2 and T3 at LAX. The proposed project is the modernization of existing T2 and T3 at LAX, including the addition of new facilities for passenger and baggage screening, ticketing, baggage claim, concessions, and airline lounges. The proposed project improvements are consistent with the LAX Plan land use designation and with the allowable uses under the LAX Specific Plan. Therefore, the proposed project would not conflict with the applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. Moreover,

[46] City of Los Angeles, LAX Plan, September 29, 2004, as amended July 3, 2013.
[47] City of Los Angeles, Los Angeles International Airport Specific Plan, September 29, 2004, as amended July 3, 2013.

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implementation of the proposed project would be consistent with the existing permitted uses. No impact or conflict with an applicable land use plan, policy or regulation would occur with the implementation of the proposed project and no further evaluation is required.

c. Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The Dunes Specific Plan Area, a designated Los Angeles County Significant Ecological Area, is located approximately 1.5 miles to the west of the project site, opposite Pershing Drive. The proposed project would be located within an urbanized airport area within and adjacent to existing airport uses and would not affect the Dunes Specific Plan Area. There is no adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan or other natural community conservation plan that includes the project site, the proposed construction staging area, or the proposed construction contractor parking area. Therefore, no impacts to, or conflict with, any habitat or natural community conservation plans would occur with the implementation of the proposed project and no further evaluation is required.

XI. MINERAL RESOURCES. *Would the project:*

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. The project site is within the boundaries of the airport and surrounded by airport-related uses. There are no mineral resources on the project site,[48] nor is the site available for mineral resource extraction given the existing airport use. Therefore, no impacts related to the loss of availability of a known valued mineral resources would occur with the implementation of the proposed project and no further evaluation is required.

b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. The project site is not within an area delineated on the City of Los Angeles Mineral Resources map in the City of Los Angeles General Plan Conservation Element[49] or the City of Los Angeles Oil Field & Oil Drilling Areas map in the City of Los Angeles General Plan Safety Element.[50] Furthermore, the project site is disturbed and in an area that is not available for mineral resource extraction due to the existing airport use. Therefore, no impacts related to the availability of a locally important mineral resource recovery site would occur with the implementation of the proposed project and no further evaluation is required.

[48] City of Los Angeles, Department of City Planning, Conservation Element of the City of Los Angeles General Plan, Exhibit A, Mineral Resources, January 2001.
[49] City of Los Angeles, Department of City Planning, Conservation Element of the City of Los Angeles General Plan, Exhibit A, Mineral Resources, January 2001.
[50] City of Los Angeles, Department of City Planning, Safety Element of the City of Los Angeles General Plan, Exhibit E, Oil Field & Oil Drilling Areas in the City of Los Angeles, May 1994.

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XII. NOISE. *Would the project result in:*

a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

a-d. Less Than Significant Impact.

The proposed project involves the modernization of existing T2 and T3 and the demolition and reconstruction of the T2.5 and T3.5 ticketing buildings. The project site is within a public airport in an urban environment that operates 24 hours a day, seven days a week, and 365 days a year, with many existing sources of noise, including aviation noise and traffic noise.

In general, humans find a change in sound level of 3 dB is just noticeable. Because of the logarithmic scale of the decibel unit, sound levels cannot be added or subtracted arithmetically. If a sound's physical intensity is doubled, the sound level increases by 3 dB, regardless of the initial sound level. For example, 60 dB plus 60 dB equals 63 dB, 80 dB plus 80 dB equals 83 dB. However, where ambient noise levels are high in comparison to a new noise source, there will be a small change in noise levels. For example, 70 dB ambient noise levels are combined with a 60 dB noise source the resulting noise level equals 70.4 dB.

Construction Noise

Construction Equipment Noise

In accordance with the L.A. CEQA Thresholds Guide, construction activities are considered to have a significant impact relative to construction noise if construction activities lasting more than ten days in a three-month period would exceed baseline ambient exterior noise levels by 5 dBA or more at a noise-sensitive use.[51]

Construction of the proposed project, which would involve the use of various pieces of equipment, would result in a temporary increase in ambient noise levels immediately adjacent to the project site. Noise levels from outdoor construction activities, independent of background ambient noise levels, indicate that the noisiest phases of construction are typically during excavation and grading, and that noise levels from equipment with mufflers are typically 86 A-weighted decibels (dBA) in equivalent A-weighted sound level (L_{eq}) at 50 feet from the noise source. This type of sound typically dissipates at a rate of 4.5 dBA to 6.0 dBA for each doubling of distance. For the noise analysis of the proposed project, the more conservative attenuation rate of 4.5 dBA was used. As such, a sound level of 86 dBA at 50 feet from the noise source would be approximately 81.5 dBA at a distance of 100 feet, 77 dBA at a distance of 200 feet, and so on.

[51] City of Los Angeles, L.A. CEQA Thresholds Guide, Your Resource for Preparing CEQA Analyses in Los Angeles, 2006.

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That sound drop-off rate does not take into account any intervening shielding or barriers such as structures or hills between the noise source and noise receptor.

Construction of the proposed project would occur in an area generally removed from the communities near LAX. The nearest noise-sensitive land uses are the Concourse Hotel on Century Boulevard approximately 2,000 feet to the east, and residential development approximately 3,200 feet to the north in Westchester. Based on a noise attenuation rate of 4.5 dBA per doubling of distance (not including noise attenuation associated with intervening walls, structures, and topography which can result in up to approximately 10 to 20 dBA reduction, depending on the nature and height of the intervening barrier between noise source and receptor), the noise levels from construction activities within the project site would be approximately 62.0 dBA L_{eq} at the Concourse Hotel on Century Boulevard and 59 dBA L_{eq} at the closest residences in Westchester. The existing daytime ambient noise levels at the nearby sensitive uses are approximately 73.5 dBA L_{eq} at the Concourse Hotel and approximately 68 dBA L_{eq} at residential areas in Westchester,[52] with the nighttime ambient noise level being approximately 5 dBA lower.

As noted above, construction activities are considered to have a significant impact relative to construction noise if construction activities lasting more than ten days in a three-month period would exceed baseline ambient exterior noise levels by 5 dBA or more at a noise-sensitive use.[53] The noise level from construction activity within the project site (62.0 at the Concourse Hotel and 57.3 dBA L_{eq} at residential development in Westchester north of Lincoln Boulevard) would not exceed the existing daytime or nighttime ambient noise level at either noise-sensitive use and, in fact, would be lower than existing ambient noise levels. Therefore, noise from construction equipment would not expose persons to, or generate, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Moreover, construction equipment associated with the proposed project would not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. Potential impacts associated with construction equipment noise would be less than significant.

Construction Roadway Noise

With regard to roadway noise associated with construction traffic on area roads, traffic volumes on roads with good operating conditions (i.e., Level of Service B or better) would have to increase at more than a three-fold rate to reach the City's threshold of significance of a 5 dBA increase, and would need to increase even more on roads with poor operating conditions (i.e., Level of Service C or worse). Roadways in the project area are heavily traveled. Construction-related vehicle trip associated with the proposed LAX T2 and T3 Modernization Project are not anticipated to approach the number of trips required to result in a three-fold increase on any area roads, based on the fact that construction-related trip generation associated with much larger development programs at LAX, such as the improvements proposed under the LAX Specific Plan Amendment Study (SPAS), the improvements proposed under the Bradley West Project, and the

[52] City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Specific Plan Amendment Study, Appendix J2, Road Traffic Noise, Attachment 1, page 5 for L_{eq} measurement representative of residential areas in Westchester near LAX and page 16 for L_{eq} measurement representative of the Concourse Hotel area.

[53] City of Los Angeles, L.A. CEQA Thresholds Guide, Your Resource for Preparing CEQA Analyses in Los Angeles, 2006.

improvements associated with the Central Utility Plant Replacement Project, were determined to be well below the existing traffic volumes on the freeways and major arterial streets around LAX and would not result in a tripling of traffic volumes. Therefore, construction-related roadway would not expose persons to, or generate, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Moreover, construction-related roadway noise associated with the proposed project would not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. Potential impacts associated with construction roadway noise would be less than significant.

Construction Equipment Vibration

Major construction within 200 feet and pile driving within 600 feet may result in potentially disruptive vibration to sensitive receptors.[54] Vibration-sensitive receptors are similar to noise-sensitive receptors and include residences, schools, hospitals, libraries, recreational areas, fragile or historic buildings, and buildings such as computer chip manufacturers, radio and TV stations, and recording studios. As noted above, the project site is located in the middle of a busy international airport. Facilities adjacent to the project site include existing terminals, sidewalks, roadways, and aircraft apron areas. The proposed project is not located within 200 feet of any vibration-sensitive receptors. The project site is located approximately 325 feet from the Theme Building, which is a historic resource. However, the Theme Building is not considered a fragile building at risk from vibration. The proposed project would be constructed using typical construction techniques. Due to the absence of vibration-sensitive structures or populations in the project vicinity, the proposed project would not expose persons to, or generate, excessive groundborne vibration. Potential impacts associated with groundborne vibration or groundborne noise would be less than significant.

Operational Noise

Potential changes to operational surface traffic and airfield operating conditions associated with the proposed project are evaluated under Sections XVI.a-b and c. As discussed therein, the proposed project is a series of improvements to modernize the concourses at T2 and T3, as well as the demolition and reconstruction of their respective passenger processors (ticketing buildings—T2.5 and T3.5). The proposed project does not entail changes to the existing T2 or T3 access and curbside conditions. Linear length and width of the curbside facilities would not change compared to existing conditions, and as result, curbside capacity at each of the CTA arrivals (lower level) and departures (upper level) curbsides in front of T2 and T3, and their respective ticketing buildings, would remain unchanged compared to existing conditions. As such, no notable changes in overall curbside vehicular activity and associated vehicle noise levels are anticipated to occur as a result of the proposed project.

Improvements to the facilities at T2 and T3, and their respective ticketing buildings, are intended to provide improved passenger experience, convenience, and quality of service through renovations of aging terminal facilities. The proposed project would not increase the terminal linear frontage available to park passenger aircraft around T2 and T3. The proposed project

[54] California Department of Transportation, Transportation and Construction Vibration Guidance Manual, September 2013.

improvements would potentially provide the opportunity for the airlines operating at these terminals to rearrange the aircraft-parking layout around each terminal to match their aircraft fleet requirements and provide additional flexibility in gate usage within the constraints of the existing terminal linear frontage. As such, no changes in overall aircraft activity and associated aircraft noise levels are anticipated to occur as a result of the proposed project.

Implementation of the proposed project is not anticipated to result in a change in the number of passengers accommodated at LAX than what could otherwise occur in the absence of the project. The airport would continue to operate as it is currently, and passengers would not change their modes of transportation or their arrival and departure distribution patterns as a result of the proposed project. As such, implementation of the proposed project is not anticipated to result in impacts on the CTA roadways system and on the off-airport roadway network in the vicinity of LAX; hence, the associated roadway noise levels along that system/network would not be significantly impacted by the project.

Implementation of the proposed project is not anticipated to result in changes to air traffic procedures for airspace route and runway assignment, including during noise-sensitive hours, or routing of aircraft between the runways and their parking position. FAA air traffic control would continue to allocate runway assignment in order to balance runway use and maximize the efficiency of the airport. Operation of the proposed project would not generate any additional noise, nor would it increase the number of daily flights arriving and departing from LAX or the ambient growth in aviation activity at LAX that is projected to occur in the future. As discussed in more detail under Sections XVI.a-b below, implementation of the project is not anticipated to result in a permanent nor a significant change in peak vehicle traffic hour characteristics at LAX that could otherwise occur if the project is not implemented. As such, noise associated with automobile traffic during airport operations would not significantly change with implementation of the proposed project. Furthermore, the project site is well removed from noise-sensitive uses and the nature of the proposed activities, being similar to other such activities occurring throughout the airport, would not change. Potential impacts associated with operational noise would be less than significant.

Summary of Impacts

Construction and operation of the proposed project would not expose persons to, or result in the generation of, noise in levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies; expose people to, or result in the generation of, excessive groundborne vibration or groundborne noise levels; create a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or create a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. Therefore, potential impacts related to construction and operational noise would be less than significant and no further evaluation is required.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less Than Significant Impact. Implementation of the proposed project involves the modernization of existing T2 and T3 and the demolition and reconstruction of the T2.5 and T3.5 ticketing buildings. As described above, there would be a temporary increase in ambient noise levels during construction of the proposed project; however, the potential impacts associated with that increase would be less than significant. As also discussed above, implementation of the proposed project is not anticipated to result in a change in air traffic patterns at LAX; hence, it would not result in significant noise impacts related to operational noise in areas near the airport. Based on the above, implementation of the proposed project would not expose people residing or working in the project area to excessive noise from a project located within an airport land use plan and no further evaluation is required.

f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project site is within a public airport and not located within the vicinity of a private airstrip. Therefore, no impact would occur relative to the exposure of people residing or working in the project area to excessive noise levels from a private airstrip with the implementation of the proposed project and no further evaluation is required.

XIII. POPULATION AND HOUSING. *Would the project:*

a. Induce substantial population growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact. The proposed project does not include residential development. Moreover, the proposed project is not anticipated to result in a change in the number of passengers accommodated at LAX than what could otherwise occur in the absence of the project. The proposed project would marginally increase long-term employment opportunities at LAX through new concessions and passenger-serving jobs within T2 and T3. These jobs are expected to be filled from the large southern California regional population and would not induce population growth in the area. The project site is located within a developed airport; no new roads or extensions of existing roads or other growth-accommodating infrastructure are proposed. Therefore, the implementation of the proposed project would not directly or indirectly induce substantial population growth directly or indirectly through extension of roads or other infrastructure and no further evaluation is required.

b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

b-c. No Impact. There are no existing residential properties on the project site. Implementation of the proposed project would not displace housing. Therefore, no impacts on

housing would occur with the implementation of the proposed project and no further evaluation is required.

XIV. PUBLIC SERVICES. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services?*

a. Fire protection?

Less Than Significant Impact. The LAFD provides fire protection services to the project site. Four LAFD fire stations are located on airport property (Fire Station Nos. 80, 51, 5, and 95). Fire Station No. 80, located at 7250 World Way West, is approximately 0.75 mile west of the project site; Fire Station No. 51, located at 10435 South Sepulveda Boulevard, is approximately 0.5 mile southeast of the project site; Fire Station No. 5, located at 8900 Emerson Avenue, is approximately 0.5 mile north of the project site; and Fire Station No. 95, located at 10010 International Road, is approximately 1.25 miles east of the project site. The proposed project would require construction access from both the landside and airside.

Fire service requirements are generally based on the size of the building and relationships to other structures and property lines. The proposed project includes the modernization of existing T2 and T3 and the demolition and reconstruction of the T2.5 and T3.5 ticketing buildings. The project site is currently developed and used for airport uses, and the boundary of the proposed project would not extend beyond the current airport boundary. The proposed project would comply with all applicable city, state, and federal codes and ordinances, including LAFD and Los Angeles Building and Safety requirements.[55] Implementation of the proposed project would not result in an increase in demand for fire protection services leading to the need for new or altered fire protection facilities, the construction of which could lead to a substantial adverse physical impact. Therefore, potential impacts to fire protection services with the implementation of the proposed project would be less than significant and no further evaluation is required.

b. Police protection?

Less Than Significant Impact. Both the Los Angeles World Airports Police Division (LAWA PD) and the City of Los Angeles Police Department LAX Detail (LAPD LAX Detail) provide police protection services to the project site. The LAWA PD station is located north of Park One, east of the project site, and the LAPD LAX Detail station is located within the CTA. Demand for on-airport police protection services is typically determined by increases in passenger activity and employees. Implementation of the proposed project involves the modernization of existing T2 and T3 and the demolition and reconstruction of the T2.5 and T3.5 ticketing buildings, which would provide additional passenger and baggage processing space, including additional space to help meet evolving federal security requirements. The proposed project is not anticipated to result in a change in the number of passengers accommodated at LAX than what could otherwise

[55] Including, but not limited to: FAA AC 150/5300-13A, Airport Design, February 26, 2014; FAA FAR Sections 139.315–139.319—Air Rescue and Firefighting (ARFF); State of California Uniform Fire Code Article 10 (Fire Protection Systems and Equipment) and Article 12 (Maintenance of Means and Egress and Emergency Escapes); and the City of Los Angeles Fire Code -- Article 7 of Chapter V of the Los Angeles Municipal Code.

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occur in the absence of the project nor would it substantially increase long-term employment that would result in need for additional police protection.

Therefore, the proposed project would not result in impacts to police protection that would require the construction of new facilities or the expansion of existing facilities. Potential impacts would be less than significant and no further evaluation is required.

c. Schools?

No Impact. Implementation of the proposed project involves the modernization of existing T2 and T3 and the demolition and reconstruction of the T2.5 and T3.5 ticketing buildings. The proposed project would not include residential development, is not anticipated to result in a change in the number of passengers accommodated at LAX than what could otherwise occur in the absence of the project, and would not substantially increase long-term employment such that indirect growth would result in enrollment increases that would adversely impact schools. Therefore, no impacts to existing school facilities or need for new school facilities would result from the implementation of the proposed project and no further evaluation is required.

d. Parks?

No Impact. Implementation of the proposed project involves the modernization of existing T2 and T3 and the demolition and reconstruction of the T2.5 and T3.5 ticketing buildings. The proposed project would not include residential development, is not anticipated to result in a change in the number of passengers accommodated at LAX than what could otherwise occur in the absence of the project, and would not substantially increase long-term employment such that indirect growth would result in increased demand for neighborhood or regional parks. Therefore, no impacts to existing parks or need for new parks would result from implementation of the proposed project and no further evaluation is required.

e. Other public facilities?

No Impact. Implementation of the proposed project would have no adverse impacts on public facilities. Implementation of the proposed project involves the modernization of existing T2 and T3 and the demolition and reconstruction of the T2.5 and T3.5 ticketing buildings. The proposed project also includes the addition of new facilities for passenger and baggage screening, ticketing, baggage claim, and concessions that would improve passenger service and experience in T2 and T3. These structural improvements and improvements in passenger processing with implementation of the proposed project would be a beneficial impact on LAX, a public facility and no further evaluation is required.

XV. RECREATION.

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

a-b. No Impact. The proposed project does not include development of recreational

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facilities nor does it include residential development. The proposed project is not anticipated to result in a change in the number of passengers accommodated at LAX than what could otherwise occur in the absence of the project nor would it substantially increase long-term employment such that increased demand for neighborhood and regional parks or other recreational facilities would occur. Therefore, the proposed project would not result in substantial physical deterioration of existing area recreational facilities or require the construction or expansion of recreational facilities. As such, no impacts related to recreational facilities would occur with the implementation of the proposed project and no further evaluation is required.

XVI. TRANSPORTATION/TRAFFIC. *Would the project:*

a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

a-b. Potentially Significant Impact.

Construction Traffic Impacts

Construction staging area and construction worker parking areas and haul routes for the proposed project are shown on **Figure 4** of the NOP. The on-airport airside entry point for construction materials being transported to and from the project site would be at SAAP No. 23, located southeast of the intersection of Westchester Parkway and Pershing Drive. The primary airside haul route within the AOA between the project site and SAAP No. 23 would be along the VSR that is south of and parallel to Taxiway D, connecting to the VSR that is east of and parallel to Pershing Drive. The haul route on public roads to and from airside access to the project site, via SAAP No. 23, would extend from the driveway at SAAP No. 23, to west on Westchester Parkway, to south on Pershing Drive, to east on Imperial Highway, then either to: (1) north on La Cienega Boulevard and into the primary construction staging area for deliveries going directly between the project site and the primary construction staging area; or, (2) continued east onto I-105 with connections to I-405 for deliveries directly to and from the project site that do not involve the construction staging area. In situations where secondary construction staging occurs directly on the project site and is accessed from the landside, such access would be through the CTA. Trucks leaving the landside portion of the project construction site would travel through the CTA to head east on Century Boulevard, then south on Aviation Boulevard, and then either: (1) east on Imperial Highway and north on La Cienega Boulevard leading into the primary construction staging area for deliveries going between the primary construction staging area and the secondary construction staging area; or (2) continued south onto I-105 with connections to I-405 for deliveries directly to and from the secondary construction staging. Construction contractor parking is currently anticipated to occur at LAX Lot F located southeast of the intersection of Century Boulevard and Avion Drive, with

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workers being shuttled to and from the CTA/project site via Century Boulevard and World Way. Construction contractor parking may also be provided at a parking lot located on the east side of Pershing Drive at Bradley West Drive. Construction employees would be shuttled to and from the project site for their shifts.

No permanent lane or road closures either on-airport or off-airport would be required for construction. However, temporary lane closures in the CTA may be required periodically to facilitate some construction activities.

As described above, the proposed project would generate temporary construction-related traffic that would utilize both on-airport and off-airport roadways. The EIR will evaluate whether construction of the proposed project would: (1) conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit; and/or (2) conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

Operational Traffic Impacts

The proposed project includes a series of improvements to modernize the concourses at T2 and T3, as well as the demolition and reconstruction of their respective passenger processors (ticketing buildings—T2.5 and T3.5). The proposed project would not change to the existing T2 or T3 access and curbside conditions. Linear length and width of the curbside facilities would not change compared to existing conditions, and as result, curbside capacity at each of the CTA arrivals (lower level) and departures (upper level) curbsides in front of T2 and T3, and their respective ticketing buildings, would remain unchanged compared to existing conditions.

Improvements to the facilities at T2 and T3, and their respective ticketing buildings, are intended to provide improved passenger experience, convenience, and quality of service through renovations of aging terminal facilities. The proposed project would not increase the terminal linear frontage available to park passenger aircraft around T2 and T3. However, the proposed project improvements would potentially provide the opportunity for the airlines operating at these terminals to rearrange the aircraft-parking layout around each terminal to match their aircraft fleet requirements and provide additional flexibility in gate usage within the constraints of the existing terminal linear frontage.

At T2, there may be a reconfiguration of the existing aircraft-parking layout, with any modifications to the existing passenger gate positions occurring within the limits of the existing terminal linear frontage.

Relative to operational traffic, the overall CTA peak vehicle traffic hour driven by the peak passenger activity at each terminal in the CTA. Peak passenger activity is based on passenger demand and airline scheduling practices. Peaking characteristics are therefore unique to each terminal and also to each level of the CTA (either departures or arrivals levels) and are subject to change for a variety of reasons irrespective of the project. Airlines operating anywhere at the airport may alter their flight schedules as each sees fit to accommodate their passengers at different

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times throughout the day, scheduling different sizes of aircraft, to maximize gate usage. As such, implementation of the proposed project is not anticipated to result in a permanent and significant change in peak vehicle traffic hour characteristics at LAX that could otherwise occur if the project is not implemented. Potential operational impacts would be less than significant and no further evaluation is required.

Implementation of the proposed project is not anticipated to result in a change in the number of passengers accommodated at LAX than what could otherwise occur in the absence of the project. Although the proposed project would result in up to five additional gates, the airport would continue to operate within the existing limitations, and passengers would not change their modes of transportation or their arrival and departure distribution patterns as a result of the proposed project. As such, potential impacts on the CTA roadways system and on the off-airport roadway network in the vicinity of LAX would be less than significant and no further evaluation is required.

c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks?

Less than Significant Impact. As discussed under Sections XVI.a-b, the proposed project includes a series of improvements to modernize the concourses at T2 and T3, as well as the demolition and reconstruction of their respective passenger processors (ticketing buildings - T2.5 and T3.5). The proposed project would not change the existing T2 or T3 access and curbside conditions. Linear length and width of the curbside facilities would not change compared to existing conditions, and as result, curbside capacity at each of the CTA arrivals (lower level) and departures (upper level) curbsides in front of T2 and T3, and their respective ticketing buildings, would remain unchanged compared to existing conditions.

Improvements to the facilities at T2 and T3, and their respective ticketing buildings, are intended to provide improved passenger experience, convenience, and quality of service through renovations of aging terminal facilities. Although the proposed project would result in up to five additional gates, the proposed project would not increase the terminal linear frontage available to park passenger aircraft around T2 and T3. The proposed project improvements would provide the opportunity for the airlines operating at these terminals to rearrange the aircraft-parking layout around each terminal to match their aircraft fleet requirements and provide additional flexibility in gate usage within the constraints of the existing terminal linear frontage.

Runway Utilization and Efficiency

LAX includes two sets of parallel runways, the north complex and south complex, which are separated by the CTA. The north runway complex consists of Runways 6L-24R and 6R-24L and the south runway complex consists of Runways 7L-25R and 7R-25L.

Standard operating procedures are in place at the LAX ATCT and Southern California Terminal Radar Approach Control that define airspace routes (Standard Terminal Arrival Route or Standard Instrument Departure) and runway assignment criteria (north or south runway complex) for arriving and departing aircraft. The route and corresponding runway assignment are initially determined by the origin or destination airport of the aircraft. However, traffic

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management specialists can reallocate runway assignments in order to balance runway usage and maximize the efficiency of the airport.

Implementation of the proposed project is not anticipated to result in a change in the overall air traffic operations at LAX. Air traffic operations at LAX largely reflect the agglomeration of over 70 carriers currently operating at LAX, each of which has its own business model and schedules its flights and operations at LAX in light of overall international and/or domestic operations, market competition, and business objectives. The modifications proposed in conjunction with modernization of T2 and T3 are not anticipated to result in a change to overall air traffic operations at LAX. In addition, implementation of the proposed project is not expected to result in a t change to air traffic procedures as the initial route and runway assignments would continue to be dictated by the origin or destination airport of the aircraft. Furthermore, FAA air traffic control would continue to reallocate runway assignment in order to balance the airfield and maximize the efficiency of the airport.

Aircraft noise abatement operating procedures and restrictions are employed during noise-sensitive hours between 10:00 p.m. and 7:00 a.m. The procedures and restrictions give preferential use of the inboard runways in order to minimize aircraft noise in the surrounding communities. Furthermore, when possible, aircraft operate using over-ocean runway procedures, approaching the airport over the ocean to the east and depart to the west over the ocean; between midnight and 6:00 a.m.[56] Implementation of the proposed project is not anticipated to result in a change to air traffic procedures or the resulting runway utilization during noise-sensitive hours.

Taxiway Utilization and Efficiency

The movement of aircraft on the airport is generally governed by the aircraft's parking position and the runway used for arrival or departure operations. Routing can be altered depending on traffic and airfield conditions, but such alterations are generally not considered significant. The implementation of the proposed project is not anticipated to change the typical routing associated with any aircraft parking position and runway combination. In the event that the runway utilization changes in association with gate utilization, the volume of aircraft using certain taxiways could potentially vary. However, similar to runway utilization, FAA air traffic control would minimize any impact to airport efficiency and operations.

Based on the above, the proposed project would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact. Construction equipment would be required to use local roadways; however, this would not create a safety hazard. No permanent lane or road closures either on-airport or off-airport would be required for construction. Temporary lane closures in the CTA may be required to facilitate some construction activities. However, in accordance with standard LAWA practice, access routes in the vicinity of the project site would be kept clear and

[56] City of Los Angeles, Los Angeles World Airports, Report on LAWA's Implementation of the Preferential Runway Use Policy, April 11, 2014.

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unobstructed at all times in accordance with FAA, State Fire Marshal, and Los Angeles Fire Code regulations;[57] therefore, any temporary lane closures would not substantially increase hazards on area roadways. Design of the project is such that it would not substantially increase hazards and the project would occur at an existing airport, which is a compatible use. Moreover, the project would occur at an existing airport, which is a compatible use. Therefore, the implementation of the proposed project would not increase hazards due to a design feature or incompatible use. As such, potential impacts would be less than significant and no further evaluation is required.

e. Result in inadequate emergency access?

Less Than Significant Impact. No permanent lane or road closures either on-airport or off-airport would be required for construction. However, temporary lane closures in the CTA may be required to facilitate some construction activities. As noted in Section XVI.d above, in accordance with standard LAWA practice, emergency access routes in the vicinity of the project site would be kept clear and unobstructed at all times in accordance with FAA, State Fire Marshal, and Los Angeles Fire Code regulations. Therefore, the proposed project would not result inadequate emergency access. Potential impacts would be less than significant with the implementation of the proposed project and no further evaluation is required.

f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No Impact. The proposed project would not alter access to or within the CTA by public transportation vehicles (e.g., buses or shuttles) and would not remove sidewalks or other pedestrian facilities within the CTA. There are no bicycle facilities (such as bicycle lanes) currently located within the CTA, therefore, implementation of the proposed project would not affect bicycle facilities. The City of Los Angeles Mobility Plan 2035 does not identify any new transit, bicycle, or pedestrian facilities within the CTA.[58] Implementation of the proposed project is within the LAX boundary and would not conflict with any adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Therefore, no impact would occur with the implementation of the proposed project and no further evaluation is required.

[57] FAA FAR Sections 139.315–139.319—Air Rescue and Firefighting (ARFF); State of California Uniform Fire Code Article 10 (Fire Protection Systems and Equipment) and Article 12 (Maintenance of Means and Egress and Emergency Escapes); and Article 7 of Chapter V of the Los Angeles Municipal Code (see in particular Chapter 4, Emergency Planning and Preparedness).

[58] City of Los Angeles, Department of City Planning, Mobility Plan 2035: An Element of the General Plan, Maps B,D1, D2, and F, December 17, 2015, as adopted January 20, 2016. Available: http://planning.lacity.org/documents/policy/mobilityplnmemo.pdf.

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XVII. UTILITIES AND SERVICE SYSTEMS. *Would the project:*

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

a-b. No Impact. Sanitary wastewater generated by activities at LAX is treated at the Hyperion Treatment Plant. The City of Los Angeles' Integrated Resources Plan (IRP)[59] identifies the City's plans to accommodate future and cumulative wastewater treatment demand. The City is implementing the components that comprise its plan through the monitoring of triggers (i.e., population growth, regulatory changes, and other policy decisions) as part of their implementation strategy. Similarly, the City of Los Angeles Department of Water and Power (LADPW) has an adopted Urban Water Management Plan that indicates that water supplies in the city will be sufficient to meet projected demands through 2035.[60] The proposed project improvements are not anticipated to result in a change in the number of passengers accommodated at LAX than what could otherwise occur in the absence of the project. Operation of the proposed project would marginally increase long-term employment opportunities at LAX. The potential increase in employment is not sufficient to result in any adverse impacts related to water demand or wastewater generation and would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. While new connections would be made to tie the new/renovated building area to the existing fire, water, sanitary sewer, and domestic water systems, the new/renovated building area is located near the center of the CTA where there is already a full complement of existing utility infrastructure at the site. The project would not result in an exceedance of wastewater treatment requirements of the LARWQCB.

The Central Outfall Sewer (COS), one of the five major sewer lines that delivers wastewater to the Hyperion Treatment Plant, runs adjacent to the east of the proposed project site. The proposed project has been designed to avoid any impacts to the COS. No other potential impacts to water or wastewater facilities would occur with the implementation of the proposed project and no further evaluation is required.

c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant Impact. While implementation of the proposed project would not increase the amount of impermeable surface areas on the project site, or affect drainage patterns or stormwater drainage systems in the proposed project vicinity, it would require compliance with the City's LID Ordinance,[61] which, in turn, would require modifications to the existing storm drain system on-site in order to accommodate the necessary BMPs. Therefore, implementation of the

[59] CH:CDM, A Joint Venture, City of Los Angeles Integrated Resources Plan, Implementation Strategy, September 2006. Available: https://www.lacitysan.org/cs/groups/public/documents/document/y250/mdew/~edisp/cnt010386.pdf.

[60] City of Los Angeles, Department of Water and Power, Urban Water Management Plan, July 2010.

[61] City of Los Angeles, Ordinance No. 181899, Low Impact Development (LID) Strategies, October 7, 2011. Available: http://www.lastormwater.org/wp-content/files_mf/finallidordinance181899.pdf.

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proposed project would result in the construction of new stormwater drainage facilities at the project site. Construction-related impacts from modifications to the existing storm drain system on-site, such as short-term noise and erosion/sedimentation, would be less than significant, as described in the relevant sections above. Potential impacts on stormwater drainage facilities would be less than significant with the implementation of the proposed project and no further evaluation is required.

d. Have sufficient water supplies available to serve the project from existing entitlements and resource, or are new or expanded entitlements needed?

Less Than Significant Impact. As noted in Sections XV11.a-b above, LADWP is the water purveyor for the project site. LADWP is responsible for supplying, treating, and distributing water within the City. According to LADWP, it has met the immediate needs of its customers and is well positioned to continue to do so in the future.[62] As discussed in Sections XVII.a-b above, during operation, the proposed project would marginally increase employment but is not anticipated to result in a change in the number of passengers accommodated at LAX than what could otherwise occur in the absence of the project or otherwise affect water demand. Construction and operation of the proposed project would not require new or expanded water supply entitlements. Therefore, potential impacts on the City's water supply would be less than significant with the implementation of the proposed project and no further evaluation is required.

Although not required to reduce significant impacts, as discussed in Section 4.0, Project Description, the proposed project would meet the requirements of CALGreen Tier 1, at a minimum. To conserve potable water, bathrooms in the new/modernized facilities would be designed with low- and ultra-low-flow systems and recycled water would be used for construction-related dust control and construction equipment washing when feasible.

e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. As discussed in Sections XVII.a-b above, the proposed project would marginally increase employment but is not anticipated to result in a change in the number of passengers accommodated at LAX than what could otherwise occur in the absence of the project or otherwise affect wastewater generation. Implementation of the proposed project would not result in a determination by the wastewater treatment provider, which serves or may serve the project that it has inadequate capacity to serve the proposed project's projected demand in addition to the provider's existing commitments and no further evaluation is required.

f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

g. Comply with federal, state, and local statutes and regulations related to solid waste?

f-g. Less Than Significant Impact. Construction of the proposed project would result in demolition and excavation of existing concrete pavement, portions of T3, and the T2.5 and T3.5 ticketing buildings, which would generate approximately 511,000 cubic yards of materials that

[62] City of Los Angeles, Department of Water and Power, Urban Water Management Plan, July 2010.

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would need to be exported from the site. During construction, it is expected that 10 to 20 percent of all construction debris would be reused on the project site. Construction debris that cannot be reused on-site would be recycled off-site or disposed of at a facility permitted to accept inert solid waste (e.g., concrete and asphalt from construction and demolition activities). The total remaining permitted inert[63] (or unclassified landfill) waste capacity in Los Angeles County was estimated to be approximately 59.83 million tons in 2014 (excluding inert debris disposal sites). Based on the average countywide 2014 disposal rate of 1,012 tons per day (tpd), this capacity would be exhausted in 189 years.[64] Therefore, there is no anticipated shortfall in disposal capacity for inert waste within Los Angeles County and potential impacts to landfills would be less than significant and no further evaluation is required.

The proposed project would be designed to provide space to support recycling efforts, including area for depositing, storing, and collecting materials for recycling. It is anticipated that solid waste generated within T2 and T3 that cannot be recycled would be taken to the Sunshine Canyon Landfill. The Sunshine Canyon Landfill is a Class III landfill located at 14747 San Fernando Road in Sylmar, California, approximately 35 miles from the project site. Sunshine Canyon Landfill is owned and operated by Republic Services, Inc., and has a maximum permitted throughput of 12,100 tons per day.[65] As of December 31, 2014, this facility had a remaining capacity of 87,416,245 cubic yards, and currently has an estimated closure date of 2037.[66] The waste types accepted at this facility include construction and demolition debris, green materials, industrial, inert, and mixed municipal waste.

The solid waste generated from construction of the proposed project would be negligible (approximately .005 percent) when compared to the current capacity available at the Sunshine Canyon Landfill. Operation of the proposed project would marginally increase employment but is not anticipated to result in a change in the number of passengers accommodated at LAX than what could otherwise occur in the absence of the project or otherwise affect solid waste generation. As noted above, the proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs and would comply with federal, state, and local statutes and regulations related to solid waste. As such, potential impacts related to solid waste disposal would be less than significant with the implementation of the proposed project and no further evaluation is required.

Although not required to reduce significant impacts, as discussed in Section 4.0, Project Description, the proposed project would meet the requirements of CALGreen Tier 1, at a minimum. The proposed project would be designed to incorporate recycled building materials to

[63] Inert waste is waste that does not undergo any significant physical, chemical, or biological transformations. Examples of inert waste include construction and demolition debris.

[64] County of Los Angeles, Department of Public Works, 2014 Annual Report on the County of Los Angeles Countywide Integrated Waste Management Plan, December 2015. Available: https://dpw.lacounty.gov/epd/swims/ShowDoc.aspx?id=3473&hp=yes&type=PDF.

[65] County of Los Angeles, Department of Public Works, 2014 Annual Report on the County of Los Angeles Countywide Integrated Waste Management Plan, December 2015. Available: https://dpw.lacounty.gov/epd/swims/ShowDoc.aspx?id=3473&hp=yes&type=PDF.

[66] County of Los Angeles, Department of Public Works, 2014 Annual Report on the County of Los Angeles Countywide Integrated Waste Management Plan, December 2015. Available: https://dpw.lacounty.gov/epd/swims/ShowDoc.aspx?id=3473&hp=yes&type=PDF.

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the maximum extent possible and the construction contractor would be required to recycle construction and demolition debris. Recycling programs would also be employed during operations. Recyclable materials would be collected in the terminal, and tenants operating in the terminal, including concessionaires and restaurant management companies, would be required to have their own recycling and waste reduction programs.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Potentially Significant Impact. As discussed under Sections IV.a-f above, the proposed project is located in a highly developed area within the CTA. There are no plant or animal species listed on any state or federal lists of endangered, threatened or special status species or riparian/wetland areas, trees, or wildlife movement corridors at the project site or within the proposed construction staging area or construction contractor parking area. Therefore, the proposed project would not substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal and no further evaluation is required.

There are no known archaeological, paleontological, or Tribal cultural resources located on the project site, and the disturbed nature of the site makes the site's sensitivity to such resources low. Nonetheless, as discussed under Sections V.b-e above, archaeological and paleontological resources have been found at other locations within the airport property, and the potential exists for the destruction of previously unidentified buried archaeological or paleontological resources at the project site during construction, if such resources are present, which would result in a potentially significant impact. In addition, the potential exists for encountering human remains or Tribal cultural resources. Therefore, the EIR for the proposed project will evaluate whether construction of the proposed project would: cause a substantial adverse change in the significance of an archaeological resource pursuant to State CEQA Guidelines §15064.5; directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; cause a substantial adverse change in the significance of a Tribal cultural resource as defined in Public Resources Code §21074; or disturb any human remains, including those interred outside of formal or dedicated cemeteries.

As described under Section V.a. above, neither T2 nor T3 were found eligible for historic listing and these terminals are not considered to be historical resources for the purposes of CEQA. No historical resources were identified immediately adjacent to T2 or T3. Further, the proposed project would not demolish, relocate, convert, rehabilitate, or reduce the integrity or significance of the three historical resources located within the proposed project vicinity: the Theme Building, the 1961 ATCT, or the T6 Sign Tower. The proposed project would not cause a substantial adverse change in the significance of a historical resource as defined in the State CEQA Guidelines §15064.5 and no further evaluation is required.

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b. Does the project have impacts which are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects).

Potentially Significant Impact. Cumulative impacts are defined as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts."[67] Section 15130(b) of the State CEQA Guidelines sets forth two approaches for analyzing cumulative impacts:

- A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or
- A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include a general plan, regional transportation plan, or plans for the reduction of GHG emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program.

To evaluate the proposed project's contribution to cumulative impacts, the first of the two options, commonly referred to as "the list approach," was used to delineate cumulative development. These projects are listed in **Table 2**, and include projects on the airport and areas immediately adjacent to the airport, whose development may result in cumulative impacts. Projects with construction schedules anticipated to overlap with the construction schedule for the proposed project are indicated in **bold** type.

Table 2
Development Projects At/Adjacent to LAX

	Project	Dates	Description
Past Projects			
1	Central Utility Plant Replacement Project (CUP – RP)	May 2011 – March 2015	Replacement CUP and related underground piping network within CTA.
2	Runway 6L-24R Runway Safety Area Improvements Project – North Airfield	June 2015 – Oct 2015	Improvements to Runway 6L-24R included implementation of declared distances to meet FAA Runway Safety Area (RSA) requirements. The Runway 6L-24R RSA Project also required the demolition and reconstruction of service roads and the relocation of the AOA fence and security gates.

[67] State CEQA Guidelines, Title 14, California Code of Regulations, Section 15355, "Cumulative Impacts."

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Table 2
Development Projects At/Adjacent to LAX

	Project	Dates	Description
	Present Projects		
3	**South Terminal Improvements**	Nov 2011 – Dec 2018	Major interior improvements and building system upgrades within the South Terminal complex, particularly Terminal 5 (Delta Air Lines) and Terminals 6-8 (United Airlines).
4	**LAX Bradley West Project**	Nov 2013 – Nov 2017	Replacement of existing concourses and aprons at the TBIT with new concourses and gates at Bradley West. Work includes demolition of existing TBIT concourses and installation of east gates/aprons along Bradley West concourses. Also includes Taxilane T project and construction of secure/sterile passenger and baggage connection between the TBIT core and Terminal 4. Although construction of a similar connection between TBIT core and Terminal 3 is also part of the overall Bradley West Project, it is broken out separately below (project 18), as its construction would not begin until after the majority of the Bradley West improvements are completed.
5	**Terminal 1 Improvements**	Aug 2014 – Dec 2018	Major interior improvements and building system upgrades to Terminal 1, including addition of floor space and reconfiguration of gates (Southwest Airlines).
6	**West Aircraft Maintenance Area Project**	Aug 2014 – Jan 2018	The West Aircraft Maintenance Area (WAMA) project will allow for more efficient and effective maintenance of existing aircraft at LAX, including Aircraft Design Group (ADG) VI aircraft (Airbus A380s and Boeing 747-8s). The project includes aircraft parking and maintenance facilities, employee parking areas, and related storage, equipment, and facilities. The project will be able to accommodate up to 8 ADG VI aircraft simultaneously or 18 ADG III aircraft (aircraft similar in size to, and including, Boeing 737s). The first phase of the WAMA Project will be completed in July 2016. The second phase of the WAMA Project (construction of an additional maintenance hangar) will be dictated by market conditions and is anticipated to be completed by 2018.

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Table 2
Development Projects At/Adjacent to LAX

	Project	Dates	Description
7	Runway 6R-24L Runway Safety Area Improvements Project – North Airfield	Aug 2015 – Nov 2016	Improvements to both ends of Runway 6R-24L, including an easterly shift of the runway and reconfigured taxiways to meet FAA RSA requirements. The Runway 6R-24L RSA Project also required the relocation of a security post and the taxicab holding/staging area.
8	**Runway 7L-25R Safety Area Improvements – South Airfield**	May 2016 – Nov 2017	Improvements at west end of Runway 7L-25R, including runway and connecting taxiway extensions to meet FAA RSA requirements. Rehabilitation of deteriorating concrete at east end of runway and Taxiway B.
9	**Metro Crenshaw/LAX Transit Corridor and Stations**	Jan 2015 – 2024	The Los Angeles County Metropolitan Transportation Authority (Metro) is constructing the Crenshaw/LAX Transit Corridor Project, which includes an 8.5-mile light-rail transit line that will connect the existing Metro Green Line and the Metro Expo Line at Crenshaw and Exposition Boulevards. Two stations are being constructed in proximity to LAX, one near the intersection of Century Boulevard and Aviation Boulevard, and another at 96th Street and Aviation Boulevard, referred to as the Airport Metro Connector.
10	**LAX Midfield Satellite Concourse (MSC) North Project**	April 2015 – Nov 2019	The MSC North Project consists of a satellite concourse west of TBIT that would include up to 12 aircraft gates that could accommodate ADG V and ADG VI aircraft. The MSC North Project includes associated apron areas, a new crossfield taxiway, a taxilane, and provisions for an underground automated people mover (APM) tunnel.
11	**Hyperion Treatment Plant Connector**	Aug 2016 – Aug 2017	This project will provide a connection from LAWA's existing retention basin within the southwest portion of LAX to the existing North Central Outfall Sewer (NCOS) interceptor that runs within LAWA property and is connected to the Hyperion Treatment Plant (HTP). The purpose of this connection is to convey the stormwater flow from LAWA's Imperial and Pershing subdrains (approximately 1,200 acres) to the HTP, to help LAWA comply with the City's Low Impact Development and Industrial General Permit requirements. Improvements include construction of

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Table 2
Development Projects At/Adjacent to LAX

	Project	Dates	Description
			an approximately 4'-diameter connection to the NCOS, and installation of pumps and related electrical and mechanical equipment.
N/A	**Miscellaneous Projects and Improvements**	Jan 2014 – July 2020	LAWA will undertake a wide variety of smaller miscellaneous projects and improvements mostly related to repair/replacement of, and upgrades to, existing facilities at LAX, including, but not limited to, runway repair/rehabilitation; elevators/escalators replacement; CTA second level roadway repairs; terminal taxilanes and aprons rehabilitation; passenger boarding bridge replacements; terminal electrical, plumbing, and facilities upgrades; miscellaneous demolition; and other improvements.
	Probable Future Projects		
12	**Terminal 2 Improvements**	Jan 2014 – Jan 2018	Major interior improvements and building system upgrades to Terminal 2.
13	**Runway 7R-25L Rehabilitation**	Sep 2017 – Dec 2018	Reconstruction of runway pavement.
14	**LAX Northside Development**	April 2016 – June 2025	The Northside Development will transform approximately 340 acres of under-utilized land on the north side of the airport to better serve LAWA and the local communities of Westchester and Playa del Rey.
15	Terminal 3 Improvements	Nov 2015 – Nov 2016	Minor interior improvements to implement regulatory upgrades in Terminal 3.
16	**Argo Drain Sub-Basin Stormwater Infiltration and Treatment Facility**	March 2017 – April 2019	Also referred to as the Westchester Stormwater Best Management Practices Project, this project would develop a 22-acre stormwater infiltration facility north of Westchester Parkway and east of Pershing Drive that would treat both City of Los Angeles and LAWA stormwater flows from the Argo watershed.
17	**Terminal 1.5**	June 2017 – July 2019	Terminal 1.5 would be constructed between existing Terminal 1 and Terminal 2 to provide additional passenger processing facilities for the north passenger terminals.

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Table 2
Development Projects At/Adjacent to LAX

	Project	Dates	Description
18	**Terminal 3 Connector**	Oct 2017 – Sep 2019	The Terminal 3 connector would provide a passenger connection between TBIT and Terminal 3 on the north side, similar to the Terminal 4 connector.
19	**Canine Facility**	Jan 2018 – Jan 2019	New canine facility for the Airport Police Department as part of the LAX Northside Development.
20	**Secured Area Access Post (SAAP) Project**	March 2018 – March 2019	Construction of a fully functional and all-encompassing access point onto the AOA on the west side of LAX. This will be the sole SAAP on World Way West to replace Post 5, which was taken out of service by the Midfield Satellite Concourse (MSC) project, and Post 21, which will be taken out of service by Phase 2 of the WAMA project. The proposed location of the new SAAP is parallel to, and south of, World Way West, near where the road will terminate at Coast Guard Road once the MSC is completed.
21	**Terminals 2 and 3 Modernization Project [*Proposed Project*]**	April 2017 – Sep 2023	Proposed Project - Section 4.0, Project Description, provides a detailed description of the Terminals 2 and 3 Modernization Project.
22	**Airport Security Buildings**	Jan 2019 – Jan 2021	Relocation of LAWA Police Department building to LAX Northside, which will include a shooting range.
23	**Concourse 0**	April 2019 – March 2023	Concourse 0 would be constructed to the east of Terminal 1, in the current location of the Park One surface parking lot. Concourse 0 would provide up to 660,000 square feet of floor space, including 11 aircraft gates.
24	**MSC South Project**	2020 - 2025	The MSC South concourse would be constructed on the south end of the MSC North concourse in order to provide up to 18 additional aircraft gates. The facility would provide approximately 560,000 square feet of floor space.
N/A	Southern California Metroplex Aircraft Route and Airspace Management Structure	Proposed implementation in Fall of 2016	The FAA SoCal Project seeks to improve the efficiency of airspace in the Southern California Metroplex by optimizing aircraft arrival and departure procedures at Southern California airports. The FAA project may involve changes in aircraft

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Table 2
Development Projects At/Adjacent to LAX

	Project	Dates	Description
	Optimization (SoCal Project)		flight paths and altitudes in certain areas, but would not result in any ground disturbance or increase the number of aircraft operations within the Southern California airspace. FAA published a draft EA for the proposed SoCal Metroplex project in 2015.
25	**North Airfield Improvements**	July 2019 - 2025	Improvements to the north airfield could include installation of high-speed taxiways, improvements to existing taxiways, installation of runway status lights, and other safety improvements, including land use compatibility projects with existing Runway Protection Zones.
26	**LAX Landside Access Modernization Program**	Jan 2018 – Dec 2035	Improvements within and east of the CTA to: improve access options and the travel experience for passengers; provide a direct connection to the Metro transit system; provide easier and more efficient access to rental cars; relieve congestion in the CTA and on the surrounding street system; and improve the efficiency and operation of the transportation system serving LAX. The program components include an automated people mover (APM) system, Intermodal Transportation Facilities (ITFs), a Consolidated Rental Car Facility (CONRAC), pedestrian walkway connections to the passenger terminals within the CTA, and roadway improvements.

Notes:
Projects shown in **bold** are anticipated to be under construction concurrent with the LAX Terminals 2 and 3 Modernization Project.
Sources: LAWA, Ricondo & Associates, Inc., 2016.

Figure 5 illustrates the location of the projects in **Table 2** in relationship to the project site. Miscellaneous Projects and Improvements are not on the figure because they occur at multiple locations throughout the airport, nor is the Southern California Metroplex Aircraft Route and Airspace Management Structure Optimization (SoCal Project) shown, for the reasons indicated in **Table 2**.

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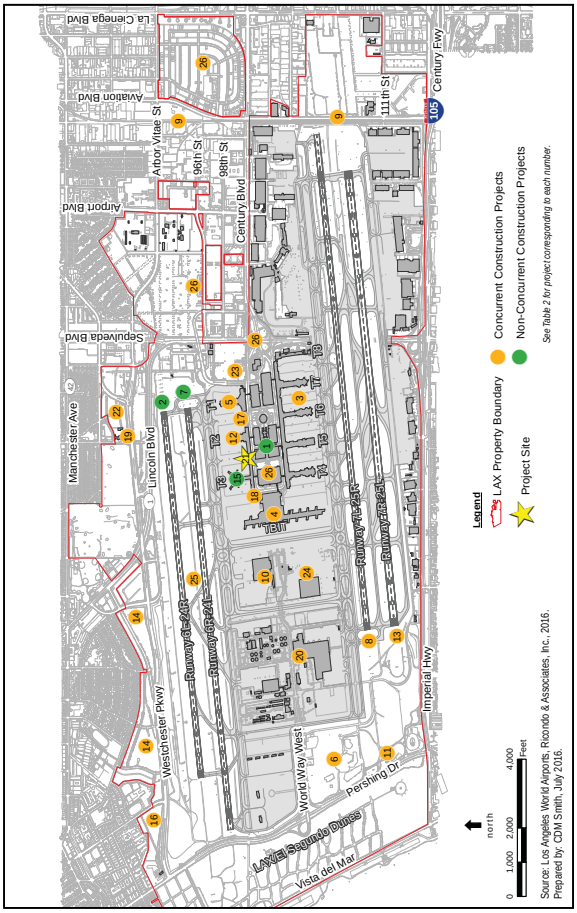

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Cumulative Construction Impacts

It is anticipated (based on current project schedules) that construction of many of the projects identified in **Table 2** located at/adjacent to LAX would overlap with construction of the proposed project, which is estimated to begin in second quarter 2017 and take approximately 76 months (six years, four months) to construct. Projects anticipated to be under construction concurrent with the proposed project are identified in **Table 2** and **Figure 5**. Potential cumulative impacts would occur during construction of the proposed project due to the proximity of the other projects at/adjacent to LAX and overlap in the construction periods; therefore, the proposed project could contribute to cumulative impacts during construction. The potential for the proposed project to contribute to cumulative impacts is addressed for each resource area below. As required by CEQA Guidelines Section 15130(b)(3), the analysis below identifies the geographic scope of cumulative development projects that was considered for each resource area.

Aesthetics

The geographic scope of cumulative impacts related to aesthetics consists of the project site, inclusive of the on-site construction area and the construction staging area, and parcels in close proximity to the project site. The subject area is highly developed, is not visible from any scenic highways and does not have any trees or rock outcroppings of scenic significance. The proposed project would be visually consistent with existing adjacent airport-related uses and would not create a new source of substantial light and glare, nor would the proposed facility detract from views of scenic vistas of the Santa Monica Mountains. Additionally, other development projects proposed at or near LAX would be generally consistent with the existing urbanized character of the area. Therefore, the contribution of the proposed project to cumulative impacts related to aesthetics would not be cumulatively considerable and no further evaluation is required.

Agricultural and Forestry Resources

The geographic scope of cumulative impacts related to agricultural and forestry resources consists of the project site, inclusive of the on-site construction area and the construction staging area, and parcels in close proximity to the project site. The subject area is in an urbanized area with no agricultural or forest land or uses in the vicinity. Similarly, the sites of past, present, and probable future projects at and adjacent to LAX do not include agricultural or forest land. Therefore, no cumulative impacts related to agricultural or forestry resources would occur and no further evaluation is required.

Air Quality

As discussed under Section III, construction activities associated with proposed project have the potential to result in significant air quality impacts; therefore, those potential impacts will be further evaluated in the EIR, including evaluation of potential cumulative air quality impacts and the potential of the proposed project to make a cumulatively considerable contribution. As also explained under Section III, implementation of the proposed project is not anticipated to result in a change in overall air operations or passenger levels at LAX, consequently, no significant air quality impacts related to operations are expected to occur. The proposed project would not result in a cumulatively considerable operations-related air quality impact

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Biological Resources

The geographic scope of cumulative impacts related to biological resources consists of the project site, inclusive of the on-site construction area and the construction staging area, and parcels in close proximity to the project site. The subject areas are highly developed and/or disturbed and do not contain any sensitive biological resources (i.e., sensitive or special status species or habitats; riparian/wetland areas), wildlife movement corridors, or native trees. Further, there is no adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan applicable to the project area. Therefore, the contribution of the proposed project to significant cumulative impacts to biological resources would not be cumulatively considerable and no further evaluation is required.

Cultural Resources

As discussed under Section V and Section XVIII.a, no historic resources were identified immediately adjacent to Terminals 2 and 3, and known historic resources in the general vicinity of the project, such as the Theme Building, the 1961 ATCT, and the Terminal 6 Sign Tower, would not be affected by the project. As such the project would not have a cumulatively considerable impact to historic resources and no further evaluation is required.

As also discussed under Section V, construction activities associated with proposed project have the potential to result in significant impacts to archaeological or paleontological resources should they be unexpectedly encountered during project-related grading and excavation. As such, the EIR will address potential impacts to archaeological resources, tribal cultural resources, and paleontological resources, including evaluation of potential cumulative effects and the potential of the proposed project to make a cumulatively considerable contribution.

Geology and Soils

The geographic scope of cumulative impacts related to geology and soils consists of the project site, inclusive of the on-site construction area and the construction staging area, and parcels in close proximity to the project site. There is no evidence of faulting within the subject area, and it is not located within an Alquist-Priolo Special Study Zone. The proposed project would not increase exposure of people or structures to risks or exacerbate risks associated with rupture of a known earthquake fault, strong seismic ground shaking, or seismic-related ground failure. The subject area is relatively flat and is not located within a landslide hazard area. The potential for soil erosion on the project site is low due to the level topography of the area and the fact that the area consists almost entirely of impervious surfaces. Foundation design features and construction methods would reduce the potential for settlement and hazards associated with expansive soils at the subject area due to the presence of artificial fill. As with the proposed project, past, present, and probable future projects at and adjacent to LAX would be designed and constructed in accordance with LABC and UBC requirements to minimize potential risks and hazards associated with geology and soils. The proposed project and past, present, and probable future projects at and adjacent to LAX are located in an urbanized area where wastewater infrastructure is in place and would not involve the use of septic tanks or alternative wastewater disposal systems. The potential impacts of the proposed project would be less than significant, and the contribution of the proposed project to cumulative impacts related to geology and soils would not be cumulatively considerable and no further evaluation is required.

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Greenhouse Gas Emissions

As discussed under Section VII, construction activities associated with proposed project have the potential to result in significant impacts related to GHG emissions, which are cumulative by nature; therefore, those potential impacts will be further evaluated in the EIR. The potential impacts of the operation of the proposed project would be less than significant, and the contribution of the proposed project to cumulative impacts related to operational GHG emissions would not be cumulatively considerable and no further evaluation is required.

Hazards and Hazardous Materials

The geographic scope of cumulative impacts related to hazards and hazardous materials consists of the project site, inclusive of the on-site construction area and the construction staging area, and parcels in close proximity to the project site. All past, present, and probable future projects that involve the handling of hazardous materials and/or remediation of hazardous wastes would be subject to the same regulations regarding waste handing, removal, transport, and storage as the proposed project. Implementation of these preventative measures would minimize the potential for risks associated with hazardous materials, including routine transport, use or disposal, as well as risk of upset or accidental release. The proposed project and the other nearby projects would not result in a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials nor create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, the contribution of the proposed project to cumulative impacts related to the handling of hazardous materials would not be cumulatively considerable and no further evaluation is required.

The proposed project is not within 0.25 mile of an existing or proposed school. Therefore, the contribution of the proposed project to cumulative impacts related to handing hazards or hazardous materials in the vicinity of a school would not be cumulatively considerable and no further evaluation is required.

The project site and nearby development are located within a public airport (i.e., LAX). Numerous safeguards are required by law to minimize the potential for, and the effects from, an aviation-related accident if one were to occur. The proposed project and the other nearby past, present, and probable future projects would be designed in accordance with FAA standards and/or City regulations to protect people and property on the ground. LAWA and tenants of LAX maintain emergency response and evacuation plans that also serve to minimize the potential for and the effects of an accident. All construction activities would comply with applicable aviation-related safeguards, and thus would not create a safety hazard. Therefore, the contribution of the proposed project to cumulative impacts related to safety hazards for people residing or working in the project area would not be cumulatively considerable and no further evaluation is required.

The proposed project and nearby development are not in the vicinity of a private airstrip. Therefore, no significant cumulative safety hazard impacts in association with being in proximity to a private airstrip would occur.

LAWA and tenants of LAX maintain emergency response and evacuation plans to minimize the potential for and the effects of an accident, should one occur. Construction activities at the planned construction staging area and at the proposed project site would comply with LAWA and FAA

guidelines and procedures that are in place to limit the impacts of construction at the airport, including the potential to affect emergency response. No permanent lane or road closures either on-airport or off-airport would be required for construction of the proposed project, although temporary lane closures in the CTA may be required to facilitate some construction activities. Lane closures for the proposed project would be coordinated through, and subject to approved by, the LAX CALM Team. Roadway lane closures required for the proposed project would be planned so as to maintain emergency access routes throughout the airport area and to ensure that access routes are kept clear and unobstructed at all times in accordance with FAA, State Fire Marshal, and Los Angeles Fire Code regulations. Based on the above, temporary lane closures associated with the proposed project are not anticipated to impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plans. Therefore, the contribution of the proposed project to cumulative impacts related to emergency access would not be cumulatively considerable and no further evaluation is required.

The project site and nearby areas are located within a developed airport and surrounded by airport uses, urbanized areas, and the Los Angeles/El Segundo Dunes. There are no fire hazard areas containing flammable brush, grass, or trees on the project site. Therefore, no cumulative impacts would occur relative to the exposure of people or structures to hazards associated with wildland fires.

Hydrology and Water Quality

The geographic scope of cumulative impacts related to hydrology and water quality consists of the project site, inclusive of the on-site construction area and the construction staging area, and parcels in close proximity to the project site. Construction of the proposed project would occur within an area that is currently developed and predominantly paved, with the only exception being pockets of ornamental landscaping. The proposed project would not materially alter existing drainage patterns or surface water runoff quantities on the project site and would not violate any water quality standards or waste discharge requirements. Moreover, implementation of the proposed project would require compliance with the City's LID Ordinance, which would serve to improve existing hydrology and water quality in the subject area. Therefore, the contribution of the proposed project to cumulative impacts related to water quality or alteration of existing drainage patterns would not be cumulatively considerable and no further evaluation is required.

Groundwater beneath and near the project site is not used for municipal or agricultural purposes. Construction and operation of the proposed project are not expected to involve dewatering and, thus, would not deplete groundwater supplies. The proposed project would not increase the amount of impervious surface on the project site and compliance with the City's LID Ordinance requirements would serve to increase surface water infiltration at the project site. Therefore, the contribution of the proposed project to cumulative impacts related to groundwater supplies or groundwater recharge would not be cumulatively considerable and no further evaluation is required.

No 100-year flood hazard areas are located within LAX and the proposed project and other development nearby do not involve the construction of housing. Therefore, no cumulative impacts would occur relative to flooding.

The project site is approximately 2.3 miles east of the Pacific Ocean and the area is not located within a potential inundation or tsunami impacted area as delineated on the City of Los Angeles Inundation and Tsunami Hazard Areas map. Mudflows are not a risk as the subject area is located

on, and is surrounded by, relatively level terrain and urban development. Therefore, no cumulative impacts would occur related to inundation by seiche, tsunami, or mudflow.

Land Use and Planning

The geographic scope of cumulative impacts related to land use and planning is defined by the boundaries of LAX. The proposed project would have no impact related to land use and planning. The project site and construction staging area are located entirely within the boundaries of a developed airport in an urbanized area and development of the project site within the airport would not disrupt or divide the physical arrangement of an established community. The proposed project improvements are consistent with the LAX Plan land use designation for the site and with the allowable uses under the LAX Specific Plan. There is no adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan or other natural community conservation plan that includes the subject area. Therefore, the contribution of the proposed project to cumulative impacts related to land use and planning would not be cumulatively considerable and no further evaluation is required.

Mineral Resources

The geographic scope of cumulative impacts related to mineral resources consists of the project site, inclusive of the on-site construction area and the construction staging area, and parcels in close proximity to the project site. There are no mineral resources or mineral extraction activities within the subject area nor would the proposed project or other development nearby affect the availability or accessibility of mineral resources. As such, no cumulative impacts would occur relative to mineral resources.

Noise

The geographic scope of cumulative impacts related to noise and vibration consists of the project site, inclusive of the on-site construction area and the construction staging area, and parcels in close proximity to the project site. The subject area is within a public airport in an urban environment that operates 24 hours a day, seven days a week, and 365 days a year, with many existing sources of noise, including aviation noise and traffic noise. Construction of the proposed project would occur in an area generally removed from the communities near LAX. The noise level from construction activity within the project site would not exceed the existing daytime or nighttime ambient noise level at noise-sensitive uses near the airport. Roadways in the project area are heavily traveled. Construction activities associated with the proposed project would not approach the number of trips required to result in a three-fold increase on any area roads, as needed to exceed the threshold of significance. Moreover, the proposed project is not located in proximity to any vibration-sensitive receptors. Therefore, the contribution of the proposed project to cumulative impacts related to construction equipment and construction traffic noise, and to groundborne vibration, would not be cumulatively considerable and no further evaluation is required.

Implementation of the proposed project involves the development of new passenger processing facilities at Terminals 2 and 3. Although there would be a temporary increase in ambient noise levels during construction, operation of the proposed project is not anticipated to increase overall passenger or aircraft operations at LAX.

The subject area is within a public airport and not located within the vicinity of a private airstrip. Therefore, no cumulative noise impacts would occur in association with being in proximity of a private airstrip.

Population and Housing

The geographic scope of cumulative impacts related to population and housing consists of LAX and the surrounding area. The proposed project and other nearby development would not establish new residential uses. The proposed project would marginally increase employment opportunities, and past, present, and probable future projects would also increase employment opportunities. This growth in employment opportunities would occur within an existing urbanized area that has established infrastructure, a well-developed transportation network, existing housing stock, and existing public services. Given that the area is part of a well-established urban community connected by an existing transportation network and with a large labor pool and housing market, the combined projects are not expected to result in the need for new housing in the project vicinity or the region. Therefore, the contribution of the proposed project to cumulative impacts related to population and housing would not be cumulatively considerable and no further evaluation is required.

Public Services

The geographic scope of cumulative impacts related to public services consists of LAX and the surrounding area. The proposed project would not result in an impact on existing fire protection, police protection, schools, parks, or other public facilities. The proposed project does not include residential uses nor would it substantially increase long-term employment that would result in need for new or altered public facilities, the construction of which could lead to a substantial adverse physical impact. As such, the contribution of the proposed project to cumulative impacts related to public services would not be cumulatively considerable and no further evaluation is required.

Recreation

The geographic scope of cumulative impacts related to recreation consists of LAX and the surrounding area. The proposed project and other nearby projects do not include development of recreational facilities nor do they include residential development that would require the construction or expansion of recreational facilities. As such, no cumulative impacts would occur related to recreation.

Traffic

As discussed under Section XVI, construction activities associated with proposed project pose the potential to result in significant traffic impacts; therefore, those potential impacts will be further evaluated in the EIR, which will include an evaluation of potential cumulative traffic impacts and the proposed project's potential contribution. As also explained under Section XVI, implementation of the proposed project is not anticipated to result in a change in overall passenger levels at LAX, consequently, no significant traffic impacts related to operations are expected to occur. The proposed project would not result in a cumulatively considerable operations-related traffic impact.

Utilities and Service Systems

The geographic scope of cumulative impacts related to utilities and service systems consists of LAX and the surrounding area. The proposed project would not result in significant impacts related to water demand or wastewater generation and would not require or result in the construction of new

water or wastewater treatment facilities or expansion of existing facilities. Solid waste generated from the proposed project would be negligible when compared to the current capacity available at the Sunshine Canyon Landfill. Moreover, in compliance with CALGreen Tier 1 standards, the proposed project would incorporate recycled building materials into construction and a portion of the construction debris would be recycled. Therefore, the contribution of the proposed project to cumulative impacts related to utilities and service systems would not be cumulatively considerable and no further evaluation is required.

Cumulative Operation Impacts

The proposed project (improvements to the facilities at T2 and T3 and their respective ticketing buildings) is not anticipated to result in a change in the number of passengers accommodated at LAX than what could otherwise occur in the absence of the project, significantly affect aircraft operations, or substantially increase long-term employment opportunities at LAX, nor would operation of the new facilities result in any significant impacts. Operation of the project would not result in any significant project-specific or cumulative impacts and no further evaluation is required.

c. Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?

Potentially Significant Impact. Based on the analysis in this Initial Study, the proposed project would have the potential to result in potentially significant construction-related air quality, GHG, and traffic impacts, which could potentially result in substantial adverse effects on human beings. The potential for the proposed project to result in such impacts will be evaluated in the proposed project EIR.

For the other environmental issues that are associated with potential impacts on human beings, based on the analyses in Sections VI (Geology and Soils), VIII (Hazards and Hazardous Materials), IX (Hydrology and Water Quality), X (Land Use and Planning), XII (Noise), XIII (Population and Housing), XIV (Public Services), XV (Recreation), and XVII (Utilities and Service Systems), above, the proposed project would not have any environmental effects which could cause substantial adverse effects on human beings, either directly or indirectly. Therefore, potential impacts to these resource areas would be less than significant and no further evaluation is required.

REFERENCES

All documents listed below are available for public inspection at the following location:

Los Angeles World Airports
One World Way, Room 218
Los Angeles, CA 90045

Documents Incorporated by Reference

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Exhibit K

Alliance for a Regional Solution to Airport Congestion (ARSAC) and LAWA

Memorandum of Understanding

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (the "Agreement") is made and entered into as of this ___ day of ___, 2016, by and between the City of Los Angeles and its Department of Airports (Los Angeles World Airports or "LAWA"), acting by and through its Board of Airport Commissioners (BOAC) (collectively, "LOS ANGELES" or "City"[1]), on the one hand, and The Alliance for a Regional Solution for Airport Congestion (ARSAC), an unincorporated association, Denny Schneider (an individual and President of ARSAC) and Robert Acherman, an individual and Vice President/Treasurer of ARSAC) (collectively referred to herein as "The ARSAC Parties"), on the other (collectively the "Parties").

WHEREAS, LOS ANGELES and ARSAC and others entered into a "Stipulated Settlement Agreement" dated February 17, 2006 (the "Prior Settlement");

WHEREAS, ARSAC expressed legal and policy concerns regarding the completed Specific Plan Amendment Study ("SPAS") California Environmental Quality Act ("CEQA") Environmental Impact Report ("EIR") and on May 30, 2013 filed a writ petition challenging it in Los Angeles Superior Court, Case Number BS143086, transferred and consolidated with Ventura County Superior Court Case No. 56-2014-00451038-CU-WM-OXN (the "SPAS Writ Action");

WHEREAS, on April 12, 2016, the trial court entered judgment in favor of LOS ANGELES, denied ARSAC's SPAS Writ Petition, and awarded costs to LOS ANGELES and this judgment is now on appeal;

WHEREAS, LOS ANGELES, as the prevailing party in the SPAS Writ Action, has submitted a cost bill to the Court in the amount of $251,860;

WHEREAS, ARSAC has disputed the amount of costs to be awarded and has filed a Motion to Tax Costs ("Cost Motion") and a Notice of Appeal from the trial court's judgment ("Appeal");

WHEREAS, the Parties desire to resolve the SPAS Writ Action Costs Motion and the Appeal without further cost and expense;

WHEREAS, LAWA is planning an LAX Landside Access Modernization Program ("LAMP") for Los Angeles International Airport ("LAX") which would include, but not be limited to, an Automated People Mover/LAX Train ("APM"), East and West Intermodal Transportation Facilities ("ITF"s), a Consolidated Rental Car Facility ("ConRAC"), a Connection to the Metro regional train system and associated projects;

WHEREAS, the nature, scope, size and capacity of the proposed projects within LAMP is broadly described in Exhibit B;

[1] The Terms "LOS ANGELES" and "The City" when used in this Agreement shall include The City of Los Angeles, its City Council, Mayor, Board of Airport Commissioners (BOAC), Department of Airports (LAWA) and LAWA's Chief Executive Officer.

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WHEREAS, LAWA is analyzing the LAMP pursuant to CEQA, the National Environmental Policy Act (NEPA) and related federal and state laws;

WHEREAS, LAWA is considering interim safety improvements to the LAX north airfield complex (the "Interim North Airfield Safety Improvement Program" or I-NASIP);

WHEREAS, LAWA is planning improvements to passenger gate facilities at LAX, including the relocation of West Remote Gates (the "West Remote Gate Relocation Program") and the development of additional new passenger gate facilities within the Passenger Terminal Modernization Area (the "PTMA") as shown in Exhibit D to this Agreement) (collectively referred to herein as PTMA Projects);

WHEREAS, projects within LAMP, the I-NASIP, the West Remote Gate Relocation Program, and the development of new passenger gate facilities within the PTMA may require certain actions by LOS ANGELES, the Federal Aviation Administration ("FAA"), Federal Highway Administration ("FHWA"), Federal Transit Administration ("FTA"), Southern California Association of Governments ("SCAG") and other government entities, including compliance with environmental review requirements under CEQA, NEPA, the Clean Air Act, Section 4(f) of the Department of Transportation Act, the National Historic Protection Act and other laws;

WHEREAS, the ARSAC Parties and LAWA agree to cooperate in implementing LAMP, I-NASIP, the West Remote Gate Relocation Program and the development of new passenger gate facilities with the PTMA;

WHEREAS, the ARSAC Parties and LOS ANGELES desire and intend that LAMP, I-NASIP, the West Remote Gate Relocation Program and the development of new passenger gate facilities within the PTMA proceed through local, state and federal approvals and environmental review, administrative and legislative consideration, and, if approved, through implementation, without litigation;

NOW, THEREFORE, in consideration of and in reliance upon the mutual covenants of the Parties expressed in this Agreement, the Parties agree as follows:

SECTION I: GENERAL PROVISIONS

A. **Recitals True and Correct.** The above recitals are true and correct and are hereby incorporated as part of this Agreement.

B. **No Admissions.** This Agreement does not constitute an admission by any Party with respect to any matter at issue in the SPAS Writ Action.

C. **Regulatory Prohibitions.** Notwithstanding any provision of this Agreement, LOS ANGELES will not be required to expend any funds or take any actions that are prohibited or disapproved by the FAA or any other regulatory agency or by any local, state or federal law, regulation or requirement FAA approval may be required prior to the use of airport revenue (as defined by the FAA) to fund LAWA's obligations under this Agreement. LAWA will determine, in its sole

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discretion, whether, when and how it may seek FAA approval for any use of airport revenue pursuant to this Agreement. Notwithstanding any provision of this Agreement, LOS ANGELES will not be required by this Agreement, either directly or indirectly, to take any action that would constitute (i) a violation of any FAA grant assurance entered into by LOS ANGELES or (ii) a waiver of LOS ANGELES' Police Power.

D. **No General Fund Expenditure Required.** Under no circumstances may any of the obligations under this Agreement require any payments from LOS ANGELES' General Fund or from any other LOS ANGELES-controlled source of funds other than airport revenue.

E. **No Third Party Beneficiaries.** Except as otherwise provided in Section II.C. (ARSAC PARTIES COMMITMENTS AND OBLIGATIONS) of this Agreement, this Agreement has no third party beneficiaries, and no one other than the Parties will have any right to enforce any of the obligations created by this Agreement.

F. **Term.** The provisions of this Agreement shall be operational through the earlier of the dates specifically set forth therein, or December 31, 2030.

SECTION II: ARSAC PARTIES COMMITMENTS AND OBLIGATIONS

A. **Immediate Dismissal of SPAS Litigation And Appeal.** Within two (2) business days of execution of this Agreement by all Parties, ARSAC will dismiss, with prejudice, ARSAC's Appeal in the SPAS Writ Action and will withdraw its Motion to Tax Costs. Except as otherwise stated in Exhibit A hereto, each party will bear its own attorney's fees and costs. The form of dismissal to be filed in the SPAS Writ Action by ARSAC is attached to this Agreement as Exhibit E. The ARSAC Parties covenant and agree, individually and collectively, that they will not directly or indirectly commence, prosecute or fund any additional lawsuits or administrative complaints regarding the Specific Plan Amendment Study or its environmental review process.

B. **Duty To Cooperate.** The ARSAC Parties agree to cooperate with LOS ANGELES in its efforts to obtain all required approvals for and to implement LAMP, I-NASIP, the West Remote Gate Relocation Program and the development of additional new passenger gate facilities within the PTMA as expeditiously as possible. Notwithstanding the foregoing, nothing herein is intended to prevent or discourage ARSAC Parties from submitting comments during the environmental review process and/or administrative proceedings that would assist LAWA in refining proposed projects to achieve greater efficiency or mitigate impacts.

C. **Covenant Not To Sue.** The ARSAC Parties covenant and agree, individually and collectively, that they will not directly or indirectly commence, prosecute or fund any lawsuits or administrative complaints against the City, that could delay,

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prevent, impede, alter or affect in any way the approval or implementation of any project within LAMP (with the size and capacity shown in Exhibit B), I-NASIP, the West Remote Gate Relocation Program or the development of new passenger gate facilities within the PTMA. The ARSAC Parties further covenant and agree, individually and collectively, that they will not directly or indirectly commence, prosecute or fund any lawsuits or administrative complaints, or intervene in any lawsuits or administrative proceedings, involving the environmental review or the approval by any local, state or federal agency of any project within LAMP, I-NASIP, the West Remote Gate Relocation Program or the development of new passenger gate facilities within the PTMA. Notwithstanding the foregoing, nothing herein is intended to prevent or discourage ARSAC Parties from submitting comments during the environmental review process and/or administrative proceedings that would assist LAWA in refining proposed projects to achieve greater efficiency or mitigate impacts.

1. The ARSAC Parties acknowledge and agree, individually and collectively, that this Agreement may be pleaded as a defense to any such litigation by the City or by any local, state or federal agency that is subject to a lawsuit, administrative complaint or intervention by any ARSAC Party with respect to the review, approval or implementation of any project within LAMP, I-NASIP, the West Remote Gate Relocation Program or the development of new passenger gate facilities within the PTMA.

2. If any of the ARSAC Parties violates the provisions of this Section II.C, the City shall have no further obligations whatsoever under this Agreement.

D. **ARSAC Representative.** ARSAC will designate in writing one individual as the "ARSAC Representative" authorized to speak or act on behalf of ARSAC for all purposes under this Agreement and will provide LAWA with contact information for the designated ARSAC Representative.

SECTION III: LAWA COMMITMENTS AND OBLIGATIONS

LAWA Commitments and Obligations are set forth in Exhibit A attached hereto and incorporated herein by reference.

SECTION IV: DISPUTE RESOLUTION AND ENFORCEMENT

A. **Informal Dispute Resolution.**

1. If any Party believes that another Party has breached or otherwise failed to perform this Agreement, the aggrieved Party shall first attempt promptly to resolve the problem through informal communications with the designated points of contact. If such efforts fail, the aggrieved Party shall promptly provide the other Party written notice of the alleged breach or failure of performance and allow the other Party thirty (30) days to cure

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the alleged breach or failure of performance or otherwise to resolve the dispute. If these efforts fail to resolve the dispute, the aggrieved party may, but is not required to, request mediation. Requests for mediation may be made no more than once every six (6) months.

2. If, after providing notice and opportunity to cure, ARSAC requests mediation, LAWA will pay for up to four days of mediation services in each calendar year, and LAWA will make available to ARSAC an annual amount up to $25,000 in scientific or technical consultant services to assist in ARSAC's analysis of issues arising from LAWA's alleged failure of performance under this Agreement that will be the subject of mediation. Allowances for scientific or technical consultant services not used for mediation support in one year will not roll to the next or otherwise cumulate. ARSAC will identify the area of expertise for which it seeks scientific or technical assistance at the time ARSAC requests an annual mediation. LAWA will provide a choice of three (3) consultants with expertise in that area from which ARSAC may choose. LAWA will retain the chosen consultant and pay the chosen consultant subject to and in accordance with applicable City contracting requirements. LAWA will be the owner of any and all scientific or technical work product created by the consultants so retained, but such consultants will also directly provide ARSAC with all work product created; the work product will be subject to mediation confidentiality and will not be disclosed outside of mediation without LAWA's written consent. When mediation has concluded, the work product created by the consultants will become public records available upon request, unless it is the subject of on-going or anticipated litigation.

B. **Enforcement of this Agreement**

1. All Parties consent to the jurisdiction of the Ventura County Superior Court or other venue agreed to in writing by the parties, where all disputes arising under this Agreement are to be heard if mediation fails to provide a resolution.

2. **Specific Performance Sole Remedy.** The only relief that any Party may request in the event of a breach of this Agreement will be an order compelling specific performance. No party may seek monetary damages of any kind as a result of any alleged breach of this Agreement.

SECTION V: NOTICES

All notices will be in writing and will be addressed to the affected Parties at the addresses set forth below. Notices will be: (a) delivered by in person service to the addresses set forth below, in which case they will be deemed delivered on the date of delivery, as evidenced by the written report of the courier service, or (b) sent by certified mail, return receipt requested, in which case they will be deemed delivered three business days after deposit in the United States

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mail. Any Party may change its address or the name and address of its attorneys by giving notice in compliance with this Agreement. Notice of a change will be effective only upon receipt. Notice given on behalf of a Party by any attorney purporting to represent a Party will constitute notice by the Party if the attorney is, in fact, authorized to represent the Party. The addresses of the Parties and their attorneys are:

If to LOS ANGELES:

Chief Executive Officer
Los Angeles World Airports
1 World Way
P.O. Box 92216
Los Angeles, California 90009-2216

With a copy to:

General Counsel to the Airport Division
1 World Way
Los Angeles, California 90009

If to ARSAC:

Denny Schneider
President
ARSAC
7929 Breen Avenue
Westchester CA 90045

With a copy to:

Douglas Carstens
Chatten-Brown & Carstens LLP
2200 Pacific Coast Highway, Suite 318
Hermosa Beach, CA 90254

If to other ARSAC Parties:

Denny Schneider
7929 Breen Avenue
Westchester CA 90045

With a copy to:

Douglas Carstens
Chatten-Brown & Carstens LLP
2200 Pacific Coast Highway, Suite 318
Hermosa Beach, CA 90254

LAMP-AL00008

Robert Acherman
1504 Engracia Ave.
Torrance, CA 90501-3105

With a copy to:

Douglas Carstens
Chatten-Brown & Carstens LLP
2200 Pacific Coast Highway, Suite 318
Hermosa Beach, CA 90254

SECTION VI: MISCELLANEOUS

A. **Legal Fees and Costs.** Each Party will bear its own legal fees and costs resulting from the preparation, negotiation, execution and enforcement of this Agreement and, except as set forth herein, the SPAS Writ Action and SPAS Writ Appeal.

B. **Waiver.** The waiver of any provision or term of this Agreement will not be deemed a waiver of any other provision or term of this Agreement. The mere passage of time, or failure to act upon a default, will not be deemed a waiver of any provision or term of this Agreement.

C. **Representation by Counsel.** Each of the Parties has been represented by counsel in the negotiation and drafting of this Agreement. Accordingly, this Agreement will not be strictly construed against any Party, and the rule of construction that any ambiguities be resolved against the drafting Party will not apply to this Agreement.

D. **Interpretation.** Specific provisions of this Agreement will take precedence over conflicting general provisions.

E. **California Law.** This Agreement will be construed in accordance with the laws of the State of California. The sole venue for any judicial enforcement action will be the Ventura County Superior Court, unless another venue is agreed to in writing by the Parties.

F. **Entire Agreement.** This Agreement contains the entire agreement between the parties and, except as otherwise explicitly provided in this Agreement, supersedes any prior agreements, whether written or oral.

G. **Authority of Signatories.** The individuals executing this Agreement represent and warrant that they have the authority to sign on behalf of the respective Parties for which they have executed this Agreement.

H. **Binding and Enforceable Upon Signature.** As to any Party, this Agreement will be binding upon, and as of the date of, the Party's execution of this

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Agreement. This Agreement will be enforceable by any Party and each Party's respective successors and assigns.

I. **Amendments.** This Agreement may not be altered, amended or modified, except by an instrument in writing signed by each of the Parties in existence at the time.

J. **Counterparts.** This Agreement may be executed in two or more counterparts, each of which may be deemed an original, but all of which will constitute one and the same document.

K. **Effective Date.** This Agreement will be effective upon execution by all parties.

L. **Severability.** If any term, provision, covenant, or condition of this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remainder of the provisions will continue in full force and effect.

M. **Assignment, Successors and Assigns.** This Agreement may not be assigned without the written consent of the other party. If properly assigned, this Agreement will bind and inure to the benefit of the agents, assigns, and successors-in-interest of each Party.

Remainder Of This Page Intentionally Left Blank; Signature Page Follows.

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APPROVED AS TO FORM:
MICHAEL N. FEUER
City Attorney

Date:_____

By: _____
Deputy/Assistant City Attorney

LOS ANGELES WORLD AIRPORTS

Date: _____

By_____
Chief Executive Officer
Department of Airports

Date: _____

By_____
Wei Chi
Comptroller
Department of Airports

APPROVED AS TO FORM:
MICHAEL N. FEUER
City Attorney

Date:_____

By: _____
Deputy/Assistant City Attorney

CITY OF LOS ANGELES

Date: _____

By_____

APPROVED AS TO FORM:

Date: 8-5-2016

By _____
Douglas Carstens, Esq.

Date: 8-5-2016

By: _____
Denny Schneider

ALLIANCE FOR A REGIONAL SOLUTION FOR AIRPORT CONGESTION (ARSAC)

Date: 8-5-2016

By _____
President

Date: AUGUST 5, 2016

By: _____
Robert Ackerman

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ARSAC SPAS/LAMP MOU

EXHIBIT A

Los Angeles Commitments and Obligations

EXHIBIT B

Description of LAMP

EXHIBIT C

Agreement Not to Litigate
Donor List

EXHIBIT D

PTMA

EXHIBIT E

Dismissal

EXHIBIT F

Prior Settlement Gate Terms

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EXHIBIT A

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EXHIBIT A

LOS ANGELES COMMITMENTS AND OBLIGATIONS

I. **Interim North Airfield Safety Improvements Project ("I-NASIP")**

A. Prior to initiating project level CEQA review or asking FAA for NEPA review of any LAX north airfield runway relocation alternatives, LAWA will publicly release a Final CEQA Environmental Impact Report, and request FAA for NEPA review, for an Interim North Airfield Safety Improvement Project ("I-NASIP") (which, for purposes of this Agreement, shall include, but not be limited to, the projects listed in Exhibit A, Attachment 1). LAWA will not tier the I-NASIP environmental review or any LAX north airfield runway relocation environmental reviews off of the SPAS EIR.

B. If LAWA obtains all necessary approvals for an I-NASIP, LAWA will make good faith efforts to implement I-NASIP within three (3) years and operate I-NASIP improvements for at least three (3) years after the removal or decommissioning of Taxiways Y and Z as part of I-NASIP implementation (the **"Initial Operations Period"**). The Initial Operations Period is intended to allow LAWA time, prior to initiating project level CEQA review or asking FAA for NEPA review of any LAX north airfield runway relocation alternative, to (1) observe and make a record of the effectiveness of the I-NASIP improvements in addressing safety and efficiency objectives, and (2) develop updated airline fleet forecasts, particularly for Group V and Group VI aircraft, based on operations, aircraft orders, and aircraft options by airlines operating at LAX. If Taxiways Y and Z are not removed or decommissioned by January 1, 2021, the commencement of Initial Operations Period will be extended on a day to day basis; provided however, the Initial Operations Period will not extend beyond January 1, 2026 under any circumstances. However, if the Interim Operations Period has not commenced by January 1, 2023 because LAWA has not obtained all necessary approvals for an I-NASIP, LAWA's obligations to implement I-NASIP under this Section I.B shall terminate. Under all circumstances arising from this Section I.B, subject to compliance with the LAX Plan in effect at the time of LAWA's review of LAX north airfield runway relocation alternatives, LAWA will appropriately consider alternatives that exclude a centerline taxiway unless the FAA issues a mandate, not solely applicable to LAX, requiring centerline taxiways for safety reasons.

LAMP-AL00008

C. Exhibit A Subsections I.A and I.B do not bar LAWA from participating in any FAA-initiated NEPA review of LAX north airfield alternatives or responding to any FAA request for Airport Layout Plan amendments for the LAX north airfield. Exhibit A Subsections I.A and I.B will not apply if: (1) the FAA Administrator makes a formal finding that immediate efforts to reconfigure the north runway are necessary to address safety concerns and provides written notice of the formal finding to the City; (2) the FAA mandates nationwide minimum runway separation safety standards that render the LAX north airfield runways non-compliant; or (3) the FAA determines that the I-NASIP is infeasible or not practicable or the FAA determines that the I-NASIP would contribute to a degradation of safety at LAX when compared to existing conditions.

II. Gates.

A. The Parties agree that the specific provisions of the Prior Settlement attached to this Agreement as Exhibit F (the **"Prior Settlement Gate Terms"**), and no others, will be incorporated by reference in this Agreement and, except as otherwise provided in the Agreement, will continue to be effective, but only as between ARSAC (the party to the previous agreement) and LAWA, until December 31, 2024, unless the provisions of this Exhibit A Section II.C, below, take effect before December 31, 2024, in which case the Prior Settlement Gate Terms shall at such time immediately terminate and have no further effect. The ARSAC Parties acknowledge and agree that the Prior Settlement has otherwise terminated and has no further effect and that in no event will the Prior Settlement Gate Terms continue to be in effect after December 31, 2024.

B. LAWA may propose West Remote Gate Relocation Program to replace the eighteen (18) remote passenger gate areas that are currently available for regular use west of Taxiway AA at LAX (the **"West Remote Gates"**) with new passenger gate facilities (the **"Relocated Gates"**) in the PTMA. LAWA may decide to initiate the West Remote Gate Relocation Program through the issuance of one or a series of CEQA NOPs. The ARSAC Parties acknowledge and agree, individually and collectively, that the project description in such NOPs may include elements for the re-purposing of some or all of the area where the West Remote Gates are located with aviation-related uses other than those related to the delivery to or retrieval of air cargo or the loading or unloading of commercial passenger flights. Until the Relocated Gates are available for use as passenger aircraft gates, LAWA may continue to operate the West Remote Gates and passenger aircraft gates at LAX located within the PTMA.

C. If LAWA issues one or more NOPs for the West Remote Gate Relocation Program prior to or on December 31, 2024, the following provisions will be effective from the time LAWA issues the last NOP for the West Remote Gate Relocation Program until December 31, 2030, when the provisions of this Exhibit A Section II.C. will terminate and have no further effect:

1. After the Relocated Gates become available for use as passenger aircraft gates, LAWA will only have the right to use the West Remote Gates as passenger aircraft gates in the following circumstances:

   a. LAWA may use the West Remote Gates at any time (i) during cases of emergency as declared by LAWA's Executive Director or a duly authorized law enforcement official or (ii) during peak periods of passenger activity when LAWA needs operational flexibility, but LAWA may use the West Remote Gates for operational flexibility on no more than 30 calendar days in any given year.

   b. LAWA may use the West Remote Gates at any time for general aviation flights, charter flights, presidential flights, military flights or any other unscheduled passenger activity at LAX.

   LAWA will provide ARSAC with a semi-annual report of the actual use, if any, of the West Remote Gates after the Relocated Gates are available for use, including the types of operations, types of aircraft, frequency of use, and time of day and day of week for such operations.

2. LAWA will not bifurcate or double-park aircraft that are actively enplaning or deplaning passengers on passenger aircraft gates to create more passenger aircraft gates in the following terminals than provided below:

Terminal	Maximum Gate Configuration
1, 2 and 3	40
4, 5, 6 and 7, 8	64
Tom Bradley International Terminal	19
Midfield Satellite Concourse Phase 1	12

3. LAWA will not seek to develop any new passenger gates facilities outside the PTMA through the termination date of this Section II.

D. In implementing the West Remote Gate Relocation Program or otherwise developing gate facilities within the PTMA, LAWA may issue NOPs for proposed development of passenger aircraft gates within the PTMA in any phase or sequence that LAWA chooses in its sole discretion, and such development may include, but will not be not limited to, Midfield Satellite Concourse Phase 2, the northerly completion of the Tom Bradley International Terminal, a passenger terminal facility east of Terminal 1 and west of Sepulveda Boulevard ("Concourse 0"), a passenger terminal facility within an area south of Century Boulevard and West of Avion Drive ("Terminal 9"), and the relocation of up to ten (10) remote passenger aircraft gates currently available at the American Eagle Facility (as shown on Exhibit D to this Agreement); provided, however, that (i) LAWA will not issue NOPs for terminal facilities, taxiways or taxi lanes within the PTMA that would be designed solely to serve aircraft smaller than FAA Group III aircraft; and (ii) any NOP issued by LAWA for projects in the PTMA will include a definitive gate count for that project, and upon approval and completion of each such project, LAWA will not bifurcate or double park aircraft that are actively enplaning or deplaning passengers on any passenger aircraft gate developed pursuant to and as defined in such project approval.

E. If the FAA requires LAWA to consider the development of additional passenger aircraft gates outside of the PTMA, LAWA will dynamically model airfield operations (using SIMMOD or an equivalent modeling tool as determined by LAWA in its sole discretion); calculate the extent to which such passenger aircraft gates contribute to unacceptable LAX airfield delays as defined in FAA Advisory Circular AC: 150/5060-5, as amended from time to time; report such results to the Board; and make such results available for public review and comment for no less than 90 days.

III. Other LAWA Commitments

A. **Payment of $400,000.** LAWA agrees to pay ARSAC $400,000 upon the immediate dismissal of the SPAS CEQA Writ Action Appeal and withdrawal of ARSAC's Motion to Tax Costs. LAWA will make the payment of $400,000 directly to an account or fund as directed by ARSAC's counsel of record (Chatten Brown & Carstens).

1. ARSAC will direct its legal counsel to reimburse ARSAC's donors and to pay Chatten Brown & Carstens, such reimbursement and payment to be solely for the firm's work regarding the SPAS EIR, (collectively the "SPAS Attorneys' Fees Refund") in amounts determined by ARSAC. ARSAC and its counsel will document all fees to be paid in a manner that provides LAWA the ability to verify that the amounts to be paid were actually paid or owed by ARSAC to ARSAC counsel solely for work regarding the SPAS EIR and for no other purpose. ARSAC agrees that none of the funds paid to ARSAC Counsel or the SPAS Attorneys' Fees Refund will ever be used directly or indirectly to fund any litigation against the City or LAWA for any matter or any reason of any kind.

2. ARSAC agrees that before providing any of the SPAS Attorneys' Fees Refund to any ARSAC donor, ARSAC will require such donor execute a legally binding "Agreement Not to Litigate" in the form attached to this Agreement as Exhibit C and will provide LAWA with an executed copy of that Agreement. All ARSAC donors eligible to receive any of the SPAS Attorneys' Fees Refund monies are identified in Exhibit C attached to this Agreement. The ARSAC Parties individually and collectively represent and warrant that Exhibit C correctly states the amount each identified person contributed to the payment of ARSAC's legal fees in connection with the SPAS Litigation. ARSAC will complete all donor refunds within thirty (30) days of execution of this Agreement.

3. ARSAC agrees that any portion of the SPAS Attorneys' Fees Refund not paid to ARSAC donors or paid to Chatten, Brown & Carstens within thirty (30) days from the date of execution of this Agreement will be held in escrow (the "Escrowed Funds") until the earlier of December 31, 2018 or the completion of the FAA's environmental review and approval of all of the LAMP projects. ARSAC will not ever use directly or indirectly any of the previously Escrowed Funds for litigation against the City or LAWA for any matter or reason of any kind. ARSAC may use the previously Escrowed Funds for any other legal purpose. ARSAC will track the usage of the previously Escrowed Funds until they have all been expended. Every six (6)

months, ARSAC will provide LAWA with a written report showing the uses to which the previously Escrowed Funds have been put and the remaining balance of Escrowed Funds.

B. **Waiver of SPAS CEQA Writ Litigation Costs.** Upon dismissal of the SPAS Appeal and the ARSAC SPAS CEQA Writ Motion to Tax Costs, LOS ANGELES agrees to limit its SPAS CEQA Writ Litigation costs recovery from ARSAC to $84,000. LOS ANGELES agrees not to seek the $84,000 from ARSAC so long as ARSAC complies with all of its obligations under MOU Section II.A II.C and II.D, and will waive recovery of that $84,000 as against ARSAC on the LAMP Statute of Limitations Date, provided ARSAC has fully complied with all of its obligations under MOU Section II.A, II.C, and II.D, as of the LAMP Statute of Limitations Date.

C. **Aviation Conference Attendance.** LAWA will reimburse the tuition and travel expenses of two (2) ARSAC representatives to attend the following two (2) conferences annually through 2021:

1. UC Davis Aviation Noise and Air Quality Symposium
2. ACI-North America Technical Committee Annual Conference

ARSAC specifically agrees that this opportunity is for reimbursement of no more than 2 conferences per year for 2 people over a period of five years, with the expiration of the opportunity occurring as of January 1, 2022. All reimbursements will be subject to and limited by the LAWA travel policies in effect at the time of travel.

D. **Prop O Park.** LAWA agrees that when it seeks a developer for the Northside Office, Research and Development site, LAWA will include in the request for proposals a requirement/expectation that the developer will contribute, subject to FAA approval, up to but not exceeding $4.2 million for the development of active recreational uses on the surface of the area currently designated in the Northside Plan for the Bureau of Sanitation Storm Water Facility (The BOS Facility). The development of active recreational uses on the surface of that area is not anticipated to occur until after completion of the BOS Facility by BOS. In no

case will LAWA be responsible for construction or maintenance of the surface uses.

E. **Carl E. Nielsen Youth Park Lease.** Prior to seeking BOAC approval, LAWA will request written concurrence from the FAA for a proposed lease extension to the current lease with Westchester Playa Del Rey Youth Foundation of the Carl E. Nielsen Youth Park through December 31, 2024. If such concurrence is not received prior to January 1, 2017, unless such date is extended by LAWA in its sole discretion, LAWA will seek BOAC and City Council approval of an extension to the current lease with Westchester Playa Del Rey Youth Foundation of the Carl E. Nielsen Youth Park through December 31, 2024, with an alternative rental rate as determined by the BOAC. The lease extension will allow for early termination by the Lessee if, at any time during the extended term of the lease, the Lessee finds the Board-adopted rate unaffordable.

F. If FAA rejects a LAWA request for the commitments in Section III.D or Section III.E of this Exhibit A, then LAWA will notify ARSAC in writing within thirty (30) days of FAA's rejection and LAWA will meet and confer with ARSAC to (1) modify the commitment with the goal of meeting FAA requirements or (2) identify a substitute commitment for the one denied by the FAA. If LAWA determines it cannot change or identify a substitute for the rejected commitment(s), then LAWA will set aside funds for future FAA-approved Westchester community benefit initiative(s) in an amount equal to $100,000 in lieu of each rejected commitment.

G. **AQMD Monitoring Location.** LAWA will consult with the South Coast Air Quality Management District to identify a potential location for one additional AQMD air quality monitoring system requiring not more than 5000 square feet of land to be located on LAWA property east of Sepulveda Blvd. While LAWA will seek to identify and reserve space for this use, actual lease or license of the space will be subject to all city and other governmental approvals and all costs associated with placing and/or maintaining the station at that location will be the responsibility of the AQMD.

H. **LAWA Representative.** LAWA will designate in writing one individual as the "LAWA Representative" authorized to speak or act on behalf of LAWA for all purposes under this Agreement and

will provide ARSAC with contact information for the designated LAWA Representative. The LAWA Representative will make good faith efforts to provide a response addressing requests for information within sixty (60) days of such requests.

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Exhibit A
Attachment 1
Interim-North Airfield Safety Improvement Project (I-NASIP) Potential Scope

I-NASIP is a project consisting of proposed LAX improvements LAWA determines provides the opportunity to promote increased safety and improved aircraft operating efficiency, which may include but not be limited to, the following.

- Between Runway 24R/6L and 24L/6R:
  - Install up to two new high-speed taxiways and potentially relocate the existing high-speed taxiways within the western 1/3rd of the north airfield runways
  - Install up to two new high-speed taxiways within the eastern 1/3rd of the north airfield runways
  - Remove or decommission existing Taxiways Y and Z
- South of Runway 24L/6R:
  - Install the Taxiway D extension west of Taxiway R, relocate facilities and activities necessary to complete this, and remove Taxiway E-17
  - Upgrade Taxiways D and E between Taxiway S to Taxilane D7
  - Install Taxiway D and E extension from Taxilane D7 to the east end of Runway 24L/6R, possibly including a hold pad, "penalty box", or bypass ramp area
- Complete the installation of Runway Status Lights (RWSL) on the north airfield
- Widen Runway 24L/6R to 200 feet and make other improvements to enhance the safety of Group VI aircraft take-offs and landings
- Install Final Approach Runway Occupancy Signal (FAROS) at ends of all north runways
- Assess options to remove, relocate, and mitigate commercial facilities and transportation activities south of Westchester Parkway presently in the Runway 6L/24R Runway Protection Zone (RPZ) and Runway Object Free Area (ROFA)

EXHIBIT B

LAMP-AL00008

LAMP Project Description Elements

This exhibit broadly identifies the approximate conceptual nature, elements, scope, size and capacity of the Landside Access Modernization Program ("LAMP") for Los Angeles International Airport ("LAX"). LAWA is in the process of preparing an EIR which will include a definition of the LAMP Project in more detail. A Notice of Preparation for the LAMP Project EIR was issued on February 4, 2015; and a draft EIR is expected to be issued in the Fall of 2016. The parties acknowledge and agree that planning and implementation of the LAMP project will continue to evolve, which may result in some changes regarding the LAMP project elements. Such changes are included within the scope of this Exhibit B so long as they continue to perform substantially the same functions.[1]

PROJECT COMPONENT	GENERAL LOCATION
APM System	The APM would extend approximately 2.25 miles generally from the western end of the CTA along Center Way to S. Sepulveda Boulevard and then onto W. Century Boulevard to Vicksburg Avenue. The APM would then turn north to W. 96th Street and east along W. 96th Street to the CONRAC. The APM also includes a Maintenance and Storage Facility.
ITF West	The ITF West facility would be located generally in the area bound by W. 96th Street to the south, Airport Boulevard to the east, Westchester Parkway/W. Arbor Vitae Street to the north, and extend past Jenny Avenue to the west.
ITF East	The ITF East facility would be located generally east of Aviation Boulevard between W. 96th and W. 98th Streets.
CONRAC Facility	The CONRAC would be located west of I-405, north of W. Century Boulevard, east of Aviation Boulevard and south of W. Arbor Vitae Street.
Roadway Improvements	A series of roadway improvements would occur generally in the areas of: • S. Sepulveda Boulevard and W. Century Boulevard, just east of the CTA; • Areas east of the CTA, bound generally by W. Century Boulevard to the south, S. Sepulveda Boulevard to the west, the I-405 to the east and Westchester Parkway/W. Arbor Vitae Street to the north; and • Areas north of Imperial Highway east of Aviation Boulevard to 111th Street.
Terminal Cores and Pedestrian Walkways	• Passenger walkway systems connecting the APM stations to passenger terminals, parking garages, and ground transportation facilities • Modifications to existing passenger terminals and parking garages to support the APM walkway system connections, including vertical circulation (elevators, escalators, and stairs) cores to all garage levels and to the arrival, departure, and concourse levels at the terminals;

[1] The term "CTA" refers to the Central Terminal Area at LAX. The term "TBIT" refers to the Tom Bradley Terminal at LAX.

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Automated People Mover and Associated Facilities

PROJECT COMPONENT	DESCRIPTION
APM Guideway	• The APM would operate 24 hours a day, 7 days a week • Free to passengers, employees and the public • Varying width guideway extending from the western area of the CTA to Manchester Square • The APM would include 6 stations, up to 5 cars per train
West CTA Station	• Located between existing parking garages P3 and P4, east of TBIT
West CTA Station Parking Garage	• Approximately 470 parking spaces
Center CTA Station	• Located north of the existing Central Utility Plant, south of parking garage P2A
East CTA Station	• Located between existing parking garages P1 and P7
Pedestrian Walkways	• Connect APM stations to terminals and parking garages
Vertical Circulation Cores	• Located at the interface of each pedestrian walkway and terminal/parking garage • Can accommodate elevators, escalators, and stairs
Maintenance and Storage Facility	• Facility to support the operations and maintenance of the APM operating system in Belford Square.
Traction Power Substations	• Three to 5 substations to provide power to the APM guideway and trains • Located in the general vicinity of the East CTA Station, ITF West, ITF East, and/or APM Maintenance and Storage Facility

LAMP-AL00008

ITF West

PROJECT COMPONENT	DESCRIPTION
APM Station	• A pedestrian walkway connects to the public parking garage • A vertical circulation core consisting of elevators, escalators, and egress stairs, would provide passengers access to the ground level
Curb Space	• Provide areas where airport shuttles and private vehicles can transfer airport users to the APM system
Public Parking Garage	• Approximately 8,000 parking spaces

ITF East

PROJECT COMPONENT	DESCRIPTION
APM Station	• A pedestrian walkway connects to the public parking garage and to the CONRAC APM station
Curb Space	• Areas where airport shuttles and private vehicles can transfer airport users to the APM system
Short term layover parking	• Located north of the proposed APM station
Parking Garage	• Approximately 8,300 parking spaces
AMC Station	• Connects to future AMC Metro station

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CONRAC

PROJECT COMPONENT	DESCRIPTION
APM Station	
CONRAC	
Customer Service Building	• Area where customers pick up rental contracts
Rental Car Ready/Return Parking Area	• Area where public picks up and drops off vehicles • Approximately 8,000 parking spaces for rental car vehicles
Quick Turnaround Area (QTA)	• Two separate structures containing fueling, car wash and maintenance facilities •
Vehicle Storage Area	• Approximately 10,000 overflow spaces; 2,200 spaces above the Idle Storage Area that can be used for employee parking if not used for rental car storage
QTA Support and Additional Site Functions	• Approximately 340 parking spaces • Houses equipment and systems to support operations of the QTA
Employee and Visitor Parking	• Approximately 1100 employee parking spaces and 100 visitor parking spaces
Bus Plaza	• Approximately 12 bus bays

LAMP-AL00008

Major Roadway Improvements – Phase 1

ROADWAY	APPROXIMATE LOCATION
New Roadways	
New 'A' St	Century Blvd to Westchester Pkwy/W. Arbor Vitae Street
New 'B' St	New 'A' St to Airport Blvd
New 'C' St	Imperial Hwy and W. 111th St
New 'D' St	W. 96th St to W. Arbor Vitae St
New 98th St	Bellanca Ave to La Cienega Blvd
New Concourse Way	Century Blvd to New 98th St
Improvements to Existing Roadways	
Sepulveda Blvd	Sepulveda Tunnel to W. 96th St
Airport Blvd	W. 98th St to West Arbor Vitae St
West Arbor Vitae St	Airport Blvd to La Cienega Blvd
West 96th St	Airport Blvd to Bellanca Ave
West 98th St	New 'A' St to Bellanca Ave
Century Blvd	New 'A' St. to Aviation Blvd
Aviation Blvd	Century Blvd to West Arbor Vitae St
La Cienega Blvd	Century Blvd to W. Arbor Vitae St

Major Roadway Improvements – Phase 2

IMPROVEMENTS TO EXISTING ROADWAYS	APPROXIMATE LOCATION
S. Sepulveda Boulevard	LAX Airport Tunnel to W. 96th Street
Northbound S. Sepulveda Boulevard to eastbound W. Century Boulevard Ramp	N/A
Westbound W. Century Boulevard	New 'A' Street to World Way
Westbound W. Century Boulevard Viaduct to World Way	N/A
Eastbound World Way (Arrivals) to southbound S. Sepulveda Boulevard Ramp	N/A
Eastbound World Way (Departures) to southbound S. Sepulveda Boulevard Ramp (join existing ramp)	N/A
Eastbound World Way (Arrivals & Departures)	W. Century Boulevard and to New 'A' Street
Eastbound World Way (Departures) to northbound S. Sepulveda Boulevard Ramp	N/A

LAMP-AL00008

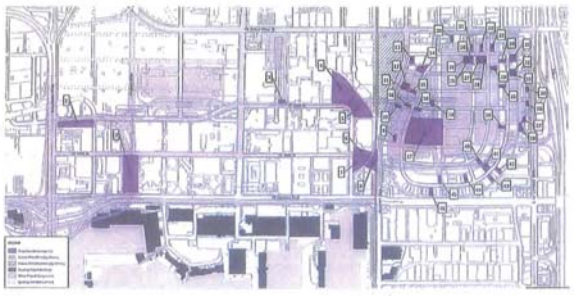
Other Project Components

Component	Description
Utilities	• Utility improvements and relocations are required to support the construction and operation of the proposed Project facilities
Operations (this list is not all inclusive)	• Policy changes may include, without limitation, changes to fees, pricing, licenses, traffic patterns, and agreements with various commercial vehicle operators at LAX • Policy changes may include, without limitation, fees and prices imposed on the general public for roadway access and/or parking at LAX facilities • Travel Demand Management (TDM) Program, Transportation Management Association; LAX-Area Employee Mobility Choice Program
Mitigation Measures	• At the end of the CEQA process, mitigation measures to reduce or eliminate significant impacts would be incorporated into the proposed Project.

LAMP-AL00008

Acquisition Properties (may change during design and engineering)

In order to facilitate the construction of the LAMP Project, acquisition of several properties located along the APM, CONRAC, and roadways, including property right-of-way for curb cuts, and billboards, is required. LAWA will acquire the majority of these properties as part of the existing relocation program underway to mitigate aircraft noise impacts on area residences, as part of the LAWA's Aircraft Noise Mitigation Program (ANMP). Should the land acquisition under the existing ANMP Relocation Plan not be completed by the time the proposed Project is approved and advanced into implementation, LAWA would begin to explore practical measures, including voluntary acquisition, leasing, and/or eminent domain to ensure designated areas are vacated consistent with LAMP's construction sequencing plan.



Enabling Projects

It is expected that construction of the LAMP project would require demolition of several existing facilities, some of which would be reconstructed. These enabling projects include but are not limited to three parking garages within the CTA that would be demolished and reconstructed, including Parking Garage P2A, Parking Garage P2B and Parking Garage P5. The Clifton Moore Administration Building would be demolished and offices would be relocated. The Bob Hope Hollywood United Service Organizations would be demolished and relocated. The restaurant building at 9601 Airport Boulevard would be demolished. The Metro Bus Terminal on 96th Street would be demolished and the facility would be relocated. Other properties scheduled for demolition include the Commercial Vehicle Holding lot on 98th Street, which would be demolished and relocated. The Delta Hangar complex would be demolished and relocated as would the Reliant Medical Center and the DEA offices. These enabling projects would also include various roadway work and utility relocations in the general vicinity of the Project.

LAMP-AL00008

LAMP Entitlements

As part of the LAMP Project, LAWA will amend the LAX Plan, LAX Specific Plan, Westchester-Playa del Rey Community Plan, Mobility Plan 2035, and seek various entitlements including zone changes, tract maps and ultimately modify LAWA's Ground Transportation Permit Program. The LAX Plan Amendments include but are not limited to map amendments, text updates to LAMP components, goals and objectives, land use descriptions, updates to various policies and will remove specific projects. The LAX Specific Plan Amendments include but are not limited to general clean up and reorganization, clearer definitions of Project, addition of land use areas, modification of boundaries, inclusion of additional requirements, such as the LAX Design Guidelines, and removals of parking cap language specific to the build out of the 2004 Master Plan. LAWA will also seek amendments to the Westchester-Playa del Rey Community Plan, Mobility Plan 2035, and zone changes, tract maps and ultimately modify LAWA's Ground Transportation Permit Program to be consistent with and implement the LAMP Project.

LAMP Phase 2: Potential Future Related Development

PARCEL NUMBER	APPROXIMATE SIZE (ACRES)
1	4.5
2	3.0
3	2.5
4	4.0
5	2.5
6	9.0
7	11.0
8	5.0

Potential Future Related Development – Potential Use

POTENTIAL USE	APPROXIMATE SIZE (SQ. FT.)
Office Space	300,000
Hotel (approximately 400 rooms)	300,000
Commercial Space	200,000
Conference Center	100,000
Total:	900,000

EXHIBIT B

EXHIBIT C

AGREEMENT NOT TO LITIGATE

The undersigned [NAME OF DONOR] (the "Donor") hereby acknowledges that:

1. S/he has read and understands the Memorandum of Understanding between ARSAC and the City of Los Angeles (the "City") dated _____, 2016 (the "MOU");

2. S/he has received reimbursement of $_____ from the SPAS Attorneys' Fee Refund for donation(s) the Donor made to ARSAC to fund the legal expenses associated with the SPAS Litigation; and

3. In consideration of this reimbursement of donation(s) made by the Donor, the Donor agrees to be bound by the provisions of Section II.C of the MOU barring certain future litigation against the City.

Accordingly, the Donor covenants and agrees that s/he will not directly or indirectly commence, prosecute or fund any lawsuits or administrative complaints against the City, that could delay, prevent, impede, alter or affect in any way the approval or implementation of any project within LAMP (with the size and capacity shown in Exhibit B), I-NASIP, the West Remote Gate Relocation Program or the development of new passenger gate facilities within the PTMA, as all of these capitalized terms are defined in the MOU. The Donor further covenants and agrees that s/he will not directly or indirectly commence, prosecute or fund any lawsuits or administrative complaints, or intervene in any lawsuits or administrative proceedings, involving the environmental review or the approval by any local, state or federal agency of any project within LAMP, I-NASIP, the West Remote Gate Relocation Program or the development of new passenger gate facilities within the PTMA, as all of these capitalized terms are defined in the MOU. The Donor also acknowledges and agrees that this Agreement may be pleaded as a defense to any such litigation by the City or by any local, state or federal agency that is subject to a lawsuit, administrative complaint or intervention by any ARSAC Party with respect to the review, approval or implementation of any project within LAMP, I-NASIP, the West Remote Gate Relocation Program or the development of new passenger gate facilities within the PTMA, as all of these capitalized terms are defined in the MOU.

Dated: _____

_____
[Name of Donor]

EXHIBIT C

1. Ella Lewin, LLC - $159,000
2. Dennis Schneider - $80,000
3. Drollinger Family Charitable Foundation - $25,000

EXHIBIT D

LAMP-AL00008

Los Angeles World Airports

Passenger Terminal Modernization Area

February 12, 2016

EXHIBIT D

LAMP-AL00008

EXHIBIT E

LAMP-AL00008

TO BE FILED IN THE COURT OF APPEAL — APP-007

COURT OF APPEAL: Second — APPELLATE DISTRICT, DIVISION: Six

Court of Appeal Case Number (if known): B272457

Superior Court Case Number: 56-2014-00451038-CU-WM-OX

FOR COURT USE ONLY

ATTORNEY OR PARTY WITHOUT ATTORNEY (Name, state bar number, and address):
Douglas P. Carstens, (SBN 193439)
Chatten-Brown & Carstens
2200 Pacific Coast Hwy, Suite 318
Hermosa Beach, CA 90254
TELEPHONE NO.: (310) 798-2400 FAX NO. (Optional): (310) 798-2404
E-MAIL ADDRESS (Optional): DPC@cbcearthlaw.com
ATTORNEY FOR (Name): Alliance for a Regional Solution to Airport Congestion

APPELLANT: Alliance for a Regional Solution to Airport Congestion
RESPONDENT: City of Los Angeles, et al.

REQUEST FOR DISMISSAL OF APPEAL (CIVIL CASE)

The undersigned appellant hereby requests that the appeal filed on (*date*) 05/24/2016 in the above entitled action be dismissed.

Date:

Douglas P. Carstens, Chatten-Brown & Carstens
(TYPE OR PRINT NAME)

▶ _____
(SIGNATURE OF APPELLANT OR ATTORNEY)

NOTE: File this form in the Court of Appeal if the record on appeal has already been filed in the Court of Appeal. If the record has not yet been filed in the Court of Appeal, you cannot use this form; you must file an *Abandonment of Appeal (Unlimited Civil Case)* (form APP-005) in the superior court.

Page 1 of 1

Form Approved for Optional Use
Judicial Council of California
APP-007 [Rev. July 1, 2009]

REQUEST FOR DISMISSAL OF APPEAL (CIVIL CASE)

Cal. Rules of Court, rule 8.244

EXHIBIT E

LAMP-AL00008

APP-007

CASE NAME:	CASE NUMBER:
ARSAC v. City of Los Angeles, et al.	B272457

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EXHIBIT E

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EXHIBIT F

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SECTION IV. PASSENGER GATE PROVISION

A. LAX currently has 163 total passenger aircraft gates available for loading and unloading of passengers during scheduled aircraft operations. Gates are defined as specific locations where passengers are enplaned and deplaned. Except as provided in Subsection B.1 below, LAWA will operate no more than 163 passenger gates at LAX throughout the term of this Settlement. As noted in the FAA's Record of Decision for the Proposed LAX Master Plan Improvements ("ROD") (July 26, 2005) on page 17, one objective of the LAX Master Plan is to improve the efficiency of passenger operations while also, "encouraging, but not requiring, other airports in the Los Angeles Basin to operate equally." According to the ROD "[t]his is accomplished by restricting the overall availability of gates where passengers will board and exit an aircraft." The FAA's ROD identifies a number of projects that complete the LAX Master Plan and notes that these improvements will be implemented in phases. Appendix C of the ROD lists the proposed project phasing and notes that, "[t]he listing of these projects is not necessarily the order in which these projects may be implemented." The following minimum criteria will be used by LAWA to implement the proposed LAX improvements in a timely manner in order to achieve the local and regional benefits described in the LAX Master Plan and in the ROD while also maintaining LAX's operational efficiency.

B. With respect to passenger gates at LAX, LAWA will accomplish the following:

1. Having received the FAA's Statement regarding the effect of this provision on FAA's environmental obligations and duties under FAA's statutory authority, and consistent therewith, commencing in 2010, LAWA will discontinue passenger operations at two narrow body equivalent gates ("NBEG") per year at LAX until LAWA has discontinued passenger operations by a total of 10 NBEG. By December 31, 2015, the total number of passenger gates (including remote gates) shall be reduced to no more than 153 passenger gates. These reductions will be achieved through the build out of improved contact passenger gate facilities and the elimination of remote gate facilities as approved in FAA's ROD. Implementation of this Settlement will not restrict access at LAX to levels below those disclosed in FAA's Final EIS and ROD for the No Action and the approved project scenario in 2015.

2. If LAWA discontinues passenger operations at any gate during the period of time before 2010, LAWA shall receive an NBEG credit which may be used to offset any obligations to reduce NBEG at any time during the Settlement, and LAWA shall also receive an NBEG credit for any unused NBEG reductions after 2009 in excess of two NBEG, such that LAWA will not be required to reduce the existing number of NBEG by more than a total of 10 NBEG.

C. Subsection B.1 above shall not apply if either (1) total passenger operations at LAX are below 75 million annual passengers or (2) the LAX Master Plan Program is rebalanced by refusal pursuant to the LAX Specific Plan Amendment Process such that the total number of gates is reduced to 153 or less.

D. Subsection B.1 above shall not apply either (1) during states of emergency as declared by LAWA's Executive Director or a duly authorized law enforcement official or (2) during peak periods of passenger activity when LAWA needs operational flexibility to use additional gates, but under no circumstances shall LAWA exceed the NBEG requirement of Subsection B on more than 20 calendar days per year for such peak periods.

E. Subsection B.1 above shall not apply to general aviation flights, charter flights, international flights, cargo flights, military flights or any other unscheduled passenger activity at LAX.

F. LAWA shall determine which combination of gates it will be operating at any given time, and shall, upon determining to change which gates are to be non-operational, notify Petitioners of such changes. No more than four times per year total, Petitioners shall have the right to conduct physical inspections at LAX to verify LAWA compliance with this Section IV. Petitioners shall provide LAWA with reasonable written notice of their intent to inspect, at less than 24 hours prior to the proposed inspection, to the office of the Deputy Executive Director of the Office of Quality and Compliance. LAWA shall provide Petitioners' representative with the appropriate security clearance and an escort to conduct such physical inspections.

EXHIBIT F

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Exhibit L

FAA Advisory Circular 150/5070-6B

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U.S. Department of Transportation
Federal Aviation Administration

Advisory Circular

Subject: Change 2 to Airport Master Plans **Date:** 1/27/2015 **AC No.:** 150/5070-6B
Initiated by: APP-400 **Change:** 2

1. PURPOSE. This Change 2 incorporates additional guidance on passenger convenience, ground access, and access to airport facilities, as identified in Section 131 of Public Law 112-95, "FAA Modernization and Reform Act of 2012 (49 U.S.C. § 47101(g)(2))." Additional provisions of Public Law 112-95 such as Section 132 (b) which amended the definition of airport planning to include plans for recycling and minimizing the generation of airport solid waste (49 U.S.C § 47102(b)(5)(C)), and Section 133 providing that master plans address issues related to solid waste recycling and waste minimization (49 U.S.C. § 47106(a)(6)(A)) have been addressed in separate FAA guidance. These and related considerations will be incorporated into a future change to this AC.

This change also incorporates relevant updates related to the recent changes to Advisory Circular (AC) 150/5300-13, Airport Design, and references to the new Standard Operating Procedures for preparation and submission of Airport Layout Plans.

2. PRINCIPAL CHANGES. Changed text is indicated by vertical bars in the margins. The primary revisions are contained in Chapters 8 and 10 and Appendix B of this AC. In addition, limited editorial and text revisions since the release of Change 1 to this AC in 2007 are incorporated throughout. A full revision to this AC is underway.

PAGE CONTROL CHART

Remove Pages	Dated	Insert Pages	Dated
i-iii	7/29/2005	i-iii	1/27/2015
iv	5/1/2007	iv	1/27/2015
7-8	7/29/2005	7-8	1/27/2015
13	7/29/2005	13	1/27/2015
27	7/29/2005	27	1/27/2015

Remove Pages	Dated	Insert Pages	Dated
32-33	7/29/2005	32-33	1/27/2015
42	7/29/2005	42	1/27/2015
48-62	7/29/2005	48-67	1/27/2015
65	7/29/2005	71	1/27/2015
73	7/29/2005	79	1/27/2015
75-76	7/29/2005	81-82	1/27/2015
78	5/1/2007	84	1/27/2015
79-83	7/29/2005	85-91	1/27/2015
89	7/29/2005	97	1/27/2015
91	7/29/2005	103	1/27/2015
97-110	7/29/2005	105-118	1/27/2015
129-130	7/29/2005	137-138	1/27/2015

Elliott Black
Director, Office of Airport Planning and Programming

U.S. Department of Transportation
Federal Aviation Administration

Advisory Circular

Consolidated AC includes Changes 1 and 2

Subject: Airport Master Plans **Date:** July 29, 2005 **AC No.:** 150/5070-6B
Initiated by: APP-400 **Change:**

1. PURPOSE. This Advisory Circular (AC) provides guidance for the preparation of master plans for airports that range in size and function from small general aviation to large commercial service facilities. The intent of this AC is to foster a flexible approach to master planning that directs attention and resources to critical issues. The scope of each master plan must be tailored to the individual airport under evaluation.

2. CANCELLATION. This publication cancels Advisory Circular 150/5070-6A, *Airport Master Plans*, dated June 1985. Chapter 10 and Appendix F of this document cancel Chapter 1, Section 5, *Airport Layout Plan*; Appendix 6, Section 2, *Typical Airport Layout Plan*; and Appendix 7, *Airport Layout Plan Components and Preparation*, of Advisory Circular 150/5300-13, *Airport Design*, dated September 1989.

Dennis E. Roberts, Director
Office of Airport Planning and Programming

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PART I: THE PROCESS OF PREPARING MASTER PLAN STUDIES

Chapter 1 Introduction

101. PURPOSE AND APPLICATION

This Advisory Circular (AC) provides guidance for the preparation of master plans for all airports. Its intent is to foster the development and adoption of a flexible approach to master planning that devotes resources and attention to critical issues. Planners should tailor an individual master plan to the unique conditions at the study airport. As a result, master plans for individual airports will vary in what elements they include and in the level of detail.

An airport master plan is a comprehensive study of an airport and usually describes the short-, medium-, and long-term development plans to meet future aviation demand. The category of study that includes master plans and master plan updates can therefore be thought of as a continuum that varies by level of detail and associated effort.

The elements of a master planning process will vary in complexity and level of detail, depending on the size, function, issues, and problems of the individual airport. The technical steps described in this AC are generally applicable, although each step should be undertaken only to the extent necessary to produce a meaningful product for a specific airport. However, study elements for large and/or complex airports may involve unique technical analyses beyond those detailed in this AC. The sponsor, the sponsor's consultant, and FAA representatives must carefully prepare a scope of work that reflects the circumstances of the individual airport.

102. INTENDED USERS

This publication is intended primarily for use by members of the aviation community, especially those directly involved in preparing master plans: airport sponsors, airport staff, airport consultants, FAA representatives, and state aviation officials. It will also be useful to airport board members; municipal officials; state, regional, and local planning personnel; and the general public.

103. NEED FOR NEW GUIDANCE

Methods and techniques associated with airport master plan studies have evolved since the last version of this AC was published in 1985. This update incorporates current industry methods and procedures commonly employed in the preparation and documentation of master plan studies.

104. FUNCTION OF MASTER PLAN STUDIES

a. Airport master plans are prepared to support the modernization or expansion of existing airports or the creation of a new airport. The master plan is the sponsor's strategy for the development of the airport.

b. The goal of a master plan is to provide the framework needed to guide future airport development that will cost-effectively satisfy aviation demand, while considering potential environmental and socioeconomic impacts. The FAA strongly encourages that planners consider the possible environmental and socioeconomic costs associated with alternative development concepts, and the possible means of avoiding, minimizing, or mitigating impacts to sensitive resources at the appropriate level of detail for facilities planning.

c. Each master plan should meet the following objectives:

1) Document the issues that the proposed development will address.

2) Justify the proposed development through the technical, economic, and environmental investigation of concepts and alternatives.

3) Provide an effective graphic presentation of the development of the airport and anticipated land uses in the vicinity of the airport.

4) Establish a realistic schedule for the implementation of the development proposed in the plan, particularly the short-term capital improvement program.

5) Propose an achievable financial plan to support the implementation schedule.

6) Provide sufficient project definition and detail for subsequent environmental evaluations that may be required before the project is approved.

7) Present a plan that adequately addresses the issues and satisfies local, state, and Federal regulations.

8) Document policies and future aeronautical demand to support municipal or local deliberations on spending, debt, land use controls, and other policies necessary to preserve the integrity of the airport and its surroundings.

9) Set the stage and establish the framework for a continuing planning process. Such a process should monitor key conditions and permit changes in plan recommendations as required.

105. ORGANIZATION AND USE OF THE ADVISORY CIRCULAR

a. **Structure of the Advisory Circular** – The Advisory Circular is presented in two parts:

1) ***Part I – The Process of Preparing Master Plan Studies*** provides an introduction to the Advisory Circular, an overview of master plan studies, and a summary of the pre-planning process.

2) ***Part II – Elements of Master Plan Studies*** provides a detailed discussion of the various elements of master plan studies, including the components of master plan technical reports and the plan drawings that accompany them.

b. As noted above, Part II of the AC details the individual elements of a master plan study. Although they are presented in the order found in a typical master plan report, issues in some chapters may have a direct bearing on those in other chapters. Environmental and financial feasibility considerations, for example, must be considered throughout the process. These cross-linkages are explicitly identified in the relevant chapters of Part II.

c. The AC includes several appendices of supplemental materials. Appendix A presents a glossary of terms that are commonly used in airport master planning. Appendix B provides a list of useful reference materials, including other advisory circulars, FAA orders, appropriate Code of Federal Regulations, Transportation Security Regulations, security-related publications, FAA reports, and general airport publications. Appendix C provides a listing of potential stakeholders in the public involvement program of the master planning process. Appendix D provides a discussion of environmental factors in airport master planning. Appendix E provides guidance on the site selection process. Appendix F shows the general guidelines in preparing the airport layout plan drawing set.

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Chapter 2 Content of Master Planning Studies

201. TAILORING STUDIES TO THE NEEDS OF INDIVIDUAL AIRPORTS

The guidance in this AC covers planning requirements for all airports, regardless of size, complexity, or role. However, each master plan study must focus on the specific needs of the airport for which a plan is being prepared and the scope of a study must be tailored to the individual airport. Therefore, in a given study certain master planning elements may be emphasized while others may not be considered at all. Although the FAA does not require airports to prepare master plans, it strongly recommends that they do so.

The intent of this AC is to foster a flexible approach in the preparation of airport master plans, enabling planners to focus their resources and effort on critical issues. As a scope of work is developed, the planners and airport sponsors must make decisions regarding two key questions: (1) what type of study should be conducted, and (2) what level of detail should be assigned to the individual elements of the study?

202. TYPES OF MASTER PLANNING STUDIES

a. The master planning process will vary with the size, complexity, and role of the study airport and may include a variety of supporting studies. However, all master planning studies will fall within one of two basic types: Airport Master Plans or Airport Layout Plan (ALP) Updates.

b. **Airport Master Plans** – An airport master plan is a comprehensive study of the airport and typically describes short-, medium-, and long-term plans for airport development. Master planning studies that address major revisions are commonly referred to as "Master Plans," while those that change only parts of the existing document and require a relatively low level of effort tend to be known as "Master Plan Updates." In common usage, however, the distinction refers to the relative levels of effort and detail of master planning studies. In most cases, the master plan will include the following elements:

1) ***Pre-planning*** – The pre-planning process includes an Initial Needs Determination, Request for Proposal and Consultant Selection, Development of Study Design, Negotiation of Consultant Contract, and Application for Study Funding.

2) ***Public Involvement*** – Once the consultant team is under contract and has been issued a notice-to-proceed, establish a public involvement program and identify and document the key issues of various stakeholders.

3) ***Environmental Considerations*** – A clear understanding of the environmental requirements needed to move forward with each project in the recommended development program.

4) ***Existing Conditions*** – An inventory of pertinent data for use in subsequent plan elements.

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5) ***Aviation Forecasts*** – Forecasts of aeronautical demand for short-, medium-, and long-term time frames.

6) ***Facility Requirements*** – Assess the ability of the existing airport, both airside and landside, to support the forecast demand. Identify the demand levels that will trigger the need for facility additions or improvements and estimate the extent of new facilities that may be required to meet that demand.

7) ***Alternatives Development and Evaluation*** – Identify options to meet projected facility requirements and alternative configurations for each major component. Assess the expected performance of each alternative against a wide range of evaluation criteria, including its operational, environmental, and financial impacts. A recommended development alternative will emerge from this process and will be further refined in subsequent tasks. This element should aid in developing the purpose and need for subsequent environmental documents.

8) ***Airport Layout Plans*** – One of the key products of a master plan is a set of drawings that provides a graphic representation of the long-term development plan for an airport. The primary drawing in this set is the Airport Layout Plan. Other drawings may also be included, depending on the size and complexity of the individual airport.

9) ***Facilities Implementation Plan*** – Provides a summary description of the recommended improvements and associated costs. The schedule of improvements depends, in large part, on the levels of demand that trigger the need for expansion of existing facilities.

10) ***Financial Feasibility Analysis*** – Identify the financial plan for the airport, describe how the sponsor will finance the projects recommended in the master plan, and demonstrate the financial feasibility of the program.

c. **Airport Layout Plan Updates** – An update of the airport layout plan (ALP) drawing set should be an element of any master plan study. In fact, keeping the ALP current is a legal requirement for airports that receive Federal assistance. An update of the ALP drawing set will reflect actual or planned modifications to the airport and significant off-airport development. An accompanying ALP Narrative Report should explain and document those changes and contain at least the following elements:

1) Basic aeronautical forecasts.

2) Basis for the proposed items of development.

3) Rationale for unusual design features and/or modifications to FAA Airport Design Standards.

4) Summary of the various stages of airport development and layout sketches of the major items of development in each stage.

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An ALP drawing set update is an appropriate alternative to a full master plan whenever the fundamental assumptions of the previous master plan have not changed. If there have not been any major changes in airport activity or improvements that have had unanticipated consequences, a master plan update is not necessary. Another situation where only an ALP update would be appropriate is the examination of a single development item, such as runway safety area improvements. As indicated above, an ALP update will typically involve fewer elements than a full master plan study, including only the aviation demand forecasts, an assessment of facility requirements, a facility implementation and financing plan, and an airport layout plan drawing set. If additional steps are required to complete the ALP update, a full master plan study is probably a better choice.

203. LEVEL OF STUDY DETAIL

Although almost every master plan includes the full list of elements discussed above, the complexity of the individual elements will vary, depending on an airport's size, function, and particular issues and problems. Each element should be analyzed only to the extent required to produce a meaningful product for that particular airport. The planning process should consider the facility planning needed to enable a seamless transition to subsequent projects.

The scoping process used by the airport sponsor, the sponsor's consultant, and the FAA to develop a work program for the planning study should determine the appropriate level of detail for each study element. The availability of planning information from Federal, state and local organizations may eliminate the need to develop similar information in a study effort. Chapter 3 contains additional information on the scoping process, while Part II provides greater detail on the various elements of an airport master plan.

204. PRODUCTS OF THE MASTER PLANNING PROCESS

a. The products of the master planning process will vary with the complexity of the effort. Master plans can include the following deliverables:

1) ***A Technical Report*** contains the results of the analyses conducted during the development of the master plan. For complex studies, interim reports may be produced to facilitate coordination with various government agencies, tenants, users, the general public, and other interested parties. At the conclusion of the study, the interim reports are assembled into the final technical report.

2) ***A Summary Report*** is useful in bringing together pertinent facts, conclusions and recommendations for public review.

3) ***An Airport Layout Plan Drawing Set*** contains a graphical representation of the proposed development in the master plan and is typically produced as a separate set of full-sized drawings. In addition, the ALP drawing set is typically included in the Technical Report in reduced form.

4) ***A Web Page*** – Many airport sponsors maintain a public access web page with general information about the governmental unit involved and specific information regarding

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the airport or airports operated by the sponsor. The Internet provides an excellent forum for the distribution of information on the progress of the study and its final findings and recommendations.

5) ***Public Information Kit*** – Throughout the master plan study, airport sponsor representatives may be asked to speak to community associations, civic clubs, and other organizations with an active interest in the airport. Visual aids such as models, summary brochures, or computer presentations are excellent tools to use at these events to maintain support for the airport development program.

b. The master plan technical report, summary report, and airport layout plan may be produced as paper versions and/or in an electronic format, as determined by the airport sponsor and the FAA. The electronic format will ease distribution of the final reports after the initial printing is exhausted.

c. It is again emphasized here that the level of complexity of each of these products should be determined during the development of the study design. The airport sponsor and the FAA have the flexibility to assess the level of detail that is appropriate for the individual airport and may identify other deliverables that should be produced to support the study effort.

205. MASTER PLAN REVIEWS BY THE FAA

a. The recommendations contained in an airport master plan represent the views, policies and development plans of the airport sponsor and do not necessarily represent the views of the FAA. Acceptance of the master plan by the FAA does not constitute a commitment on the part of the United States to participate in any development depicted in the plan, nor does it indicate that the proposed development is environmentally acceptable in accordance with appropriate public law. The FAA reviews all elements of the master plan to ensure that sound planning techniques have been applied. However, the FAA only approves the following elements of airport master plans:

1) ***Forecasts of Demand*** – The master plan forecast should be reviewed to ensure that the underlying assumptions and forecast methodologies are appropriate. Paragraph 704.h of this guidance should be used to determine consistency of the master plan forecast levels and the Terminal Area Forecast (TAF). Inconsistencies between the master plan forecast and TAF must be resolved, and the forecast approved, before proceeding with subsequent planning work.

2) ***Airport Layout Plan*** – All airport development at Federally-obligated airports must be done in accordance with an FAA- and sponsor-approved ALP. Furthermore, proposed development must be shown on an approved ALP to be eligible for Airport Improvement Program (AIP) funding. FAA approval of the ALP indicates that the existing facilities and proposed development depicted on the ALP conforms to the FAA airport design standards in effect at the time of the approval or that an approved modification to standard has been issued. Such approval also indicates that the FAA finds the proposed development to be safe and efficient.

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Chapter 3 Pre-planning

Planners, along with airport sponsors, must make two major decisions in tailoring a study to the needs of an individual airport: what type of study to conduct and what level of detail to use for the individual elements of the study. This chapter outlines these and other steps of the pre-planning process.

301. INITIAL NEEDS DETERMINATION

a. **Identifying General Need for Study** – The airport sponsor usually identifies the need for a planning study, based on existing or potential shortcomings in the existing plan or airport. These deficiencies may be the result of demand exceeding capacity, the introduction of new aircraft types, or the emergence of a critical environmental problem. The airport sponsor's strategic vision or business plan for the airport may drive the need for a planning study. In addition, national, state, or regional planners may have identified issues requiring the airport sponsor's attention. Alternatively, airport users, such as the scheduled airlines and general aviation pilots, may have identified needs that prompted the airport sponsor to undertake a study. The airport sponsor should formulate priorities to establish which issues are most important. Periodic meetings between the airport sponsor and FAA representatives offer an excellent opportunity to review these issues.

b. **Determining Type of Study** – Deciding whether the study in question will lead to a master plan or to an ALP update largely determines the elements to be included and the required level of effort. Even at this early stage of the process, the airport sponsor and the FAA should be able jointly to determine what type of study is appropriate. The sponsor usually will not make decisions regarding specific variations on the basic study type until the consultant has come on board. Although a master plan study will always include a technical report and an airport layout plan drawing set, supplemental products, which may often be related to public outreach efforts, will usually be determined during the scoping process.

302. REQUEST FOR QUALIFICATIONS AND CONSULTANT SELECTION

a. The current version of AC 150/5100-14 *Architectural, Engineering and Planning Consultant Services for Airport Grant Projects* provides important guidance for consultant selection, and its use is recommended. Another useful reference is "Guidelines to Selecting Airport Consultants" published by the Airport Consultants Council, an aviation industry trade association.

b. As a general rule, airport sponsors hire a consultant to prepare planning studies. Before soliciting statements of qualifications (SOQs) from consultants, the airport sponsor should have a clear understanding of the issues that have defined the need for the study. This information should be provided in the Request for Qualifications (RFQ) that the airport sponsor will issue.

c. The sponsor should assemble an unbiased and technically qualified selection panel to conduct the consultant selection. The qualifications of a firm should be judged on its

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experience in similar work and its staff's professional credentials. The planning team that is proposed by the consultant should include firms with relevant experience that can commit to complete the study in the amount of time specified. It is not uncommon for several firms to join together in a master planning effort for the purpose of providing specialized skills or local knowledge and expertise.

d. The sponsor should avoid the use of elaborate submittal requirements or interviews, which add substantially to the cost of the selection process for both the sponsor and the prospective consultants. If the sponsor determines that interviews or requests for additional information are necessary, the sponsor should limit this activity to a short list of three to five firms selected by the evaluation panel.

e. If sponsors anticipate an Environmental Assessment (EA) or Environmental Impact Statement (EIS), they should consult with the local FAA Airports office to determine the appropriate time to begin the consultant selection process. If a sponsor or the local FAA Airports office anticipates the need for an Environmental Assessment, the sponsor should select a qualified environmental contractor to prepare the EA. Sometimes, it may be appropriate for the sponsor to expand the scope of the master plan consultant's responsibilities to include the EA. When the sponsor or the FAA have substantial concerns that the EA may suggest that an action may cause significant impacts, the appropriate FAA Airports office should select the contractor to prepare the EA. This is because if the EA shows that significant impacts would occur, the FAA must select the contractor to prepare its EIS. FAA's selection of the EA contractor in this case saves time by eliminating the need for later contractor selection to prepare the EIS.

303. DEVELOPMENT OF STUDY DESIGN

a. The second decision in designing an effective planning study is to determine the level of detail or depth of analysis for each element. The airport sponsor and the selected consultant should negotiate these basic decisions as the work program is established.

b. The airport sponsor, the consultant, the FAA, and others (as appropriate) begin this process by (1) identifying the airport development issues to be addressed in the master plan and (2) determining the types of analyses and level of effort needed to address each issue individually. Known as "scoping," this is an important step in designing any planning study.

c. The sponsor and the selected consultant should address a broad range of topics during the scoping process. As the scoping process proceeds, the planners must remember that each master plan study is unique and the appropriate scope of work will vary from airport to airport. The airport sponsor is encouraged to develop a scope of work that is appropriate to the circumstances of the individual airport. Some of the specific topics that should be addressed at this time include:

1) ***Goals and Objectives*** – Discuss key airport development issues that the master plan will attempt to resolve. This discussion should answer questions such as: "Why is this master plan study being conducted?," "What are the key issues that need to be addressed in the future development of the airport?," and so forth.

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2) ***Data Availability*** – Review the availability of activity forecasts and capacity assessments produced by state and regional system plans and FAA Terminal Area Forecasts and decide how to use them. If these data are not used, the reasons should be discussed with and accepted by all parties, including the FAA. This is especially true for low activity airports where demand/capacity relationships are usually not a critical consideration. Current inventory data may also be available to the consultant as a result of continuous planning efforts by the airport sponsor. Use of these data may reduce the need for new data collection efforts or surveys by the consultant.

3) ***Forecast Horizons*** – Although 5-, 10-, and 20-year time frames are typical for short-, medium-, and long-term forecasts, some studies may want to use different time frames. For any forecast horizon, the short-term forecast should support a capital improvement program, the intermediate-term a realistic assessment of needs, and the long-term a concept-oriented statement of needs. Schedules for airport development that are directly related to demand levels should be tied to those demand levels, rather than dates, since the actual demand will often vary from that forecast, particularly as the time frame increases. At some airports, it may be necessary to look beyond the 20-year time frame to protect the airport from incompatible land use development. The need to do longer range planning must clearly be justified during the scoping process.

4) ***Environmental Considerations*** – Identify the level of environmental documentation that is likely to move forward with the recommendations of the completed master plan study. Sponsors, in consultation with the appropriate FAA Airport's environmental specialist, should identify whether an Environmental Assessment (EA) or Environmental Impact Statement (EIS) may be required or whether categorical exclusions may apply. As noted previously, if sponsors anticipate an EA or EIS, they should consult with the local FAA Airports office to determine the appropriate time to begin the consultant selection process. Consideration should also be given to the appropriate state environmental regulations and the need to develop applicable documentation.

5) ***Schedules*** – Agree upon schedules showing milestones for the completion of technical products and for coordination and review. The schedule should clearly indicate decision points beyond which work should not proceed without FAA or airport sponsor approval, such as FAA review and approval of the master plan forecast.

Realistic schedule development is important. From a practical standpoint, adhering to the schedule for a complex study, such as a long-range plan for a high activity airport, is very difficult. Less complex studies should not have such a problem. In any case, the schedule for a master plan study should be firm so that all reviewers are aware of their responsibilities with respect to it. The airport sponsor should emphasize the importance of meeting planning process deadlines.

6) ***Deliverables*** – The specific draft and final products of the planning process, and the general level of detail, should be listed in the scope of work and include the number, type, and format of paper reports, drawings, and electronic files.

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7) ***Coordination and Public Involvement Program*** – For less complex studies, the FAA, the airport sponsor and the consultant may be the only participants as long as they coordinate with appropriate local officials, stakeholders, and ensure citizen participation through public information sessions. These sessions may be conducted separately or in conjunction with other public meetings. Often written updates for regional or state aviation, transportation and comprehensive planning agencies will be sufficient.

For complex studies, it may be necessary to organize formal policy, technical, and review committees that meet regularly and use structured communications systems, including public hearings, public information workshops, and web-based information sharing tools. The committee membership may consist of representatives of local, state, and Federal government agencies as well as airport tenants, user groups, community associations, and business organizations. In addition, the active participation of the FAA concerning airspace management, navigational aid and approach aid installation, designation of instrument runways, potential financing of planning and development, and safety and security matters is essential.

The local FAA Airports office can coordinate the involvement of the FAA organizations that are interested in the development of the airport. Advice from the airlines concerning aircraft types they plan to use and other operational and financial matters will also be essential to the development of an effective plan.

The airport sponsors staff probably will participate in the day-to-day activities of the planning study. A large airport sponsor will likely have a more extensive management and staff structure than the sponsors of smaller airports.

8) ***Budget*** – Development of the work scope and the associated fees is usually an iterative process. The work scope contemplated in early draft narratives may require fees that exceed a sponsor's budget. Planners must adjust the scope of work, the proposed fees, or the available budget until all three components have been balanced to the satisfaction of the sponsor, the consultant, and the FAA.

d. Careful attention to the development of the scope of work for the master plan study sets the stage for a successful study. Establishing a sound scope of work will also allow the sponsor, consultant, and the FAA to develop a budget that meets the goals and objectives of the study. Failure to do so may result in a study that is lacking vital details that affect the decision making process. It is important to note that Federal planning grants cannot be amended to cover increased costs. If additional work is needed beyond the original scope of work, an additional grant would probably be required. Many of the decisions made at this point will have an impact on the degree of difficulty that is encountered as the development program moves from planning to implementation.

304. NEGOTIATING CONSULTANT CONTRACTS

After scoping the study and negotiating a price for the consulting services, a contractual arrangement must be negotiated.

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a. The recommended type of agreement between the airport sponsor and the consultant is a firm, fixed price contract. This is advisable whenever the level of effort can be fairly well predicted and where reasonable fees can be established at the outset. This type of contract imposes a minimum administrative burden and provides incentives for effective cost control and contract performance.

b. Where the level of effort or duration of the study is uncertain, a cost plus fixed-fee contract or a time and materials contract may be required. Also, some airport sponsors, recognizing that master planning often uncovers unanticipated issues that need study, add an on-call component to their consultant contract, which allows the scope and fees to be developed as new tasks are identified. These contract provisions typically provide for payment on a time and materials basis, but not to exceed a specified amount. The use of such contracts must be well justified if Federal financial assistance will be provided. The FAA does not recommend contracts based on a cost-plus percentage of cost and they are not permitted if Federal financial assistance will be provided for the study.

c. Advisory Circular 150/5100-14, *Architectural, Engineering and Planning Consultant Services for Airport Grant Projects,* is also a good reference for guidance on the options for a contract format. The procedures in this AC must be followed if Federal funds are involved.

305. APPLICATION FOR FEDERAL FUNDING

The point at which a sponsor submits a grant application to the FAA varies with the individual study. For large and complex master plans, the sponsor should divide the total grant funding into two phases. The initial phase can fund early tasks such as the definition of issues, inventory of existing conditions, preparation of forecasts, and determination of facility requirements. The second phase grant application could be prepared after the study team has gained a better grasp of the key issues and a more precise cost estimate of the effort needed to complete the master plan. The FAA should be involved in the overall process as early as possible. The FAA can advise the sponsor on the best strategy for obtaining funding and on questions of the eligibility of the elements of the proposed scope of work.

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PART II: ELEMENTS OF MASTER PLAN STUDIES

Part II of this Advisory Circular provides detailed discussions of the elements of a typical master plan study. As noted in Chapter 1, the elements to be included in a particular study will vary depending on the size, function, and challenges facing the study airport. The following key elements of master plan studies are discussed in Part II of this Advisory Circular:

- Chapter 4: Public Involvement Program
- Chapter 5: Environmental Considerations in Airport Master Planning
- Chapter 6: Existing Conditions
- Chapter 7: Aviation Forecasts
- Chapter 8: Facility Requirements
- Chapter 9: Alternatives Development and Evaluation
- Chapter 10: Airport Layout Plans
- Chapter 11: Facilities Implementation Plan
- Chapter 12: Financial Feasibility Analysis

Each chapter in Part II ends with a section titled "Documentation Guidelines." These guidelines are not mandatory, and planners should use their discretion in adopting only the guidelines that are consistent with their negotiated scope of work. Planners also have the flexibility to adopt other documentation guidelines that they feel are better suited to the particular circumstances of a study. Appendix B contains a comprehensive listing of other planning documents and guidelines that may be helpful.

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Chapter 4 Public Involvement Program

The first task in a master plan study, after the consultant receives a notice-to-proceed, is the creation of a public involvement program. The level of public involvement in airport planning should be proportional to the complexity of the planning study and to the degree of public interest. Most planning studies will fall between the minimal requirements of a small airport study and extensive public involvement required of a large and complex study. Particularly complex studies may merit the use of a consultant experienced in the public involvement process.

Figure 4-1: Public Meeting

Source: Portland Airport Project Advisory Committee

Over the course of the study, the public involvement program will encourage information-sharing and collaboration among the airport sponsor, users and tenants, resource agencies, elected and appointed public officials, residents, travelers, and the general public. Collectively, these various groups form the stakeholders who have an interest in the outcome of the study. An effective public involvement program should provide these stakeholders with an early opportunity to comment, before major decisions are made; provide adequate notice of opportunities for their involvement; and should provide for regular forums throughout the study.

401. TIMING

Public involvement has its greatest impact during the early stages of the planning process, before irreversible decisions have been made and while many alternatives can be considered. When the stakeholders become involved before major decisions or commitments are made, the planners can better deal with issues of community concern and improve the chances of reaching a consensus on controversial matters. If stakeholders become aware that the important decisions were made before they were invited to participate, they may distrust the planners. In addition, when public involvement opportunities are not provided until late in the planning process, there may not be enough time to make significant changes. The tendency, instead, will be for planners to merely defend previously determined courses of action, rather than exploring any new alternatives. An effective public involvement program will usually avoid such an undesirable outcome.

402. TOOLS AND TECHNIQUES

The study team may use a variety of forums, such as committees, public information meetings, small group meetings, and public awareness campaigns in a public involvement program. The selection of a specific platform depends on the particular complexities associated with the airport, the expected public interest in the master plan, the practices and policies of the airport sponsor, and budget considerations. In addition, it may be necessary to consider the special needs and sensitivities of low income and minority populations, consistent with the provisions in Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. Although the public involvement program is important to the master plan effort, planners must balance the need for stakeholder involvement with the costs of such a process. Complex, large, or unfocused stakeholder groups can impede meaningful input, unnecessarily raise study costs, and frustrate participants as they struggle to communicate with the study group.

a. **Committees** – Committees that facilitate the public involvement program often include a Technical Advisory Committee (TAC) and a Citizen's Advisory Committee (CAC). The TAC is responsible for providing input and insight on technical issues. Committee members typically have a high level of technical competency associated with some aspect of aviation or airport operations and are major stakeholders in the airport's operation. The CAC serves as a sounding board and information exchange group for stakeholders, reviews the planning team's plans and proposals, interacts with the planning team members during the review, makes consensus recommendations to the planning team, and finally gives its recommendations on the finished plan to the airport sponsor. The membership of the CAC should be representative of all stakeholders.

   In reviewing the master plan, the TAC will evaluate its technical merit, while the CAC will weigh the recommendations against community goals, values, and needs. The committees are advisory, however, and have no decision making power of their own. In establishing these committees, the airport sponsor does not delegate its authority and responsibilities to them. The specific roles of such committees should be clearly defined at the outset and carefully explained at the initial meeting to prevent later misunderstandings. The size of both the TAC and CAC should be kept manageable. In some cases, it may be appropriate to combine the committees into a single group.

   The public involvement program should also include a management/policy/oversight committee to advise the planning team on policy decisions that will likely need to be made throughout the study. Committee members would typically include senior airport or airport sponsor staff that have the responsibility for decision making for the airport.

b. **Public Information Meetings** – Traditional public hearings, where stakeholders are given the opportunity to make public statements about the study, are not a good forum in which to conduct a continuing discussion of issues and alternatives because of the formal and inflexible nature of such hearings. An "open house" format with interactive information stations staffed by knowledgeable staff or consultants is more informal, yet a very effective method by which to engage the public and stakeholders in soliciting their opinions on development options. A public information meeting using the open house format will permit stakeholders to visit a meeting site at their convenience and visit with

planners on an informal one-on-one basis. A short slideshow or videotape, which all attendees can view upon arrival at the open-house site, may be a useful introduction to the study process. If a more formal meeting is desired, starting with an open house and moving into a more formal forum can be effective.

The number of public information meetings to be held over the course of the study can vary depending on the complexity of the study. It may also be necessary to hold meetings in more than one location to provide adequate geographic coverage for communities affected by the planning proposals. Public information meetings are typically held in the evening to provide most people the opportunity to attend. In some unique conditions, such as with a large elderly population, a day meeting may be needed. Complex projects may require that these meetings be scheduled throughout the day.

c. **Small Group Meetings and Briefings** – Small group meetings may be held throughout the study to provide opportunities for detailed discussions of plan alternatives. These informal sessions allow study team members to learn about local concerns. Such meetings may be scheduled with community boards, elected officials, civic organizations, and other interested organizations.

d. **Public Awareness Campaign** – An effective public awareness campaign is an essential part of the public involvement program. It is instrumental in generating initial stakeholder involvement, in maintaining stakeholder interest throughout the program, and in keeping the general public informed of the progress of the study.

   1) ***Informational and Educational Materials*** – Informational materials designed to educate a broad audience about all aspects of the study may be distributed to stakeholders. These materials might include fact sheets, flyers, press releases, newspaper ads, and general information packets. Planners should provide translations of this material if the airport is located in an area where English is not the first language for a large percentage of the residents. A mechanism should be provided for individuals or organizations to add their names to a mailing list to receive these materials.

   2) ***Web Pages*** – Web pages, with interactive or self-guided presentations, as well as electronic copies of study documents, are increasingly used as part of a public awareness campaign. Planners often link the master plan web page to the airport's web site.

e. Public involvement programs can place special requirements on an airport planning team. The team must be sensitive to the interests of stakeholders and have a positive attitude toward their participation in the planning process. The members of the team must also be aware of the extra time and personal effort that will be required, since they will have to meet regularly with the stakeholders at committee and public information meetings.

   The same planners who work with the stakeholders at the various stakeholder forums should do the actual planning. Experience shows that planners must gain the confidence of the stakeholders and overcome their initial concerns before any real progress can be

achieved. Extensive public involvement from start to finish in the planning process enhances all plans and proposals and satisfies the goals of long-range planning.

403. IDENTIFY THE STAKEHOLDERS

The types of stakeholders will vary at each airport, depending on the size of the airport and the complexity of the planning issues. The following is a list of the general categories of potential stakeholders, from which a list of appropriate participants can be developed:

- Users and tenants
- Groups and individuals from within the sponsor's organization
- FAA personnel from the appropriate Regional and Field offices
- Resource agencies and other governmental units with regulatory or review authority
- Other interested groups

The individuals from a particular stakeholder group must be able to effectively represent their interests in discussions with the master plan preparation team. Furthermore, they should present the consensus view of the stakeholder group and not a special interest minority opinion. Although planners should make every effort to identify and communicate with all appropriate stakeholders early in the master plan process, it may also be necessary to add stakeholders as the study progresses. They must also be able to take study information back to their group to keep them informed throughout the planning process. Appendix C contains a more detailed list of potential stakeholders.

404. IDENTIFY KEY ISSUES

a. The identification of key issues is an early product of a well-designed public involvement program. Recall that the pre-planning activities identified in Chapter 3 included establishing which issues are of greatest concern to the airport. The results of that effort are essential in determining the type of study to be completed and in developing the scope of work. These will probably not include all issues that are of concern to each of the stakeholders. Discussions with the stakeholders (through use of the tools and techniques described earlier in this chapter) will help identify a broader set of problems, challenges, and opportunities that should be examined. These key issues will shape policy decisions, influence technical criteria and standards, and help identify development alternatives.

b. Once the key issues are identified, the sponsor may want to modify the study approach to address any important issues that had not been previously included in the proposed study. Some issues may be raised during this process that are not appropriate to include in the master plan study; these should be addressed outside of the master plan effort. The airport sponsor may establish a separate forum to handle such issues.

405. DOCUMENTATION GUIDELINES

a. **Document Key Issues** – Accurate documentation of the key issues is essential, because stakeholders will track how the planning team addresses them throughout the study. Grouping the critical issues into major functional categories, such as facilities, business,

operational, properties, and environmental issues, will help planners understand the stakeholders' concerns. The documentation should divide issues into those that will be addressed by the master plan study and those that will be addressed in a different forum.

b. **Document Public Involvement Program** – Documentation of the public involvement program should appear in an appendix to the Master Plan. Copies of committee rosters, meeting minutes, advertisements, newsletters, and other elements of the Public Awareness Campaign can be placed in an appendix as the official record of the public involvement program. This documentation should be revised regularly over the course of the study rather than being prepared at the end of the process.

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Chapter 5 Environmental Considerations

501. GENERAL

a. The purpose of considering environmental factors in airport master planning is to help the sponsor thoroughly evaluate airport development alternatives and to provide information that will help expedite subsequent environmental processing. By using existing maps of the airport area, prior environmental documents, and the Internet, planners and environmental specialists can get an excellent overview of sensitive environmental resources in and around the airport. The planner should understand that the consideration of environmental factors in the evaluation of alternatives should be tailored to each airport's size, unique setting, and operating environment, and will typically not be as detailed as that in subsequent environmental reviews. The consideration of environmental factors in the planning process will typically result in an inventory (overview) of the airport's environmental setting, the identification of potential environmental impacts of airport development alternatives, and the identification of environmentally related permits that may be required for recommended development projects.

b. The FAA recommends that the planning process consider the needs of subsequent environmental review processes. The master plan should include thoroughly supported project justifications and thorough documentation of alternatives that meet the planning need and are reasonable and feasible (environmentally as well as technically); and should note any effects of the airport development alternatives on sensitive environmental resources. Considering environmental factors in master planning provides useful information and planning principles that will help expedite the environmental review of projects.

c. Planners should develop each chapter of the master plan with environmental considerations in mind. Normally the environmental considerations should not be in a stand-alone chapter, but should be incorporated into the appropriate chapters, such as existing conditions and alternatives development and evaluation.

d. When considering environmental factors in master planning, the planner and environmental specialist do not need to follow the specific impact categories outlined in FAA Order 5050.4, NEPA Implementing Instructions for Airport Projects. Rather, FAA Order 5050.4 should be consulted as a guide to help planners identify potential environmental impacts specific to the study airport that should be considered as planning continues.

e. During the master plan scoping process, planners and environmental specialists should attempt to identify key environmental issues that will be involved in analyzing airport development alternatives to ensure that the master plan budget provides enough resources to analyze them. If such early identification is not possible, planners should propose an initial budget for the issues that may be identified during the master planning inventory and data collection process. If additional environmental issues are uncovered later in the planning process, the planner can prepare a separate scope and budget for a more detailed

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analysis. However, sponsors and planners should be aware that Federal planning grants cannot be amended and the more detailed analysis would need to be accomplished in a separate study.

f. Planners, in consultation with environmental specialists, should consider appropriate Federal environmental laws and regulations when analyzing proposed airport development alternatives. There are approximately 40 Federal laws, executive orders, and regulations protecting particular parts of the environment, such as the Clean Air, Clean Water, and Endangered Species Acts, and an Executive Order on Protection of Wetlands. There are also many state and local environmental laws and regulations that should be considered in the master planning process.

g. During the master plan scoping process, planners should try to identify any potential short-term capital development projects that might be recommended in the master plan that are known to trigger additional environmental processing, such as safety related projects. For such projects, the airport sponsor should consider beginning the environmental processing before the master planning process is completed. Otherwise, the various agencies and public involved may perceive that the NEPA analysis is biased because a recommended alternative was selected in the master plan before the NEPA process began. This guidance can be extended to longer-term projects in the case of new airports or major reconfigurations of existing airports.

h. Planners should recognize the need to achieve a balance between the manmade and the natural environment. Although every proposed development project will have some impact on the natural environment, the use of prudent planning criteria, along with sound environmental data and analysis, will help minimize unavoidable environmental impacts and the delay of project design and construction.

502. ENVIRONMENTAL CONSIDERATIONS IN MASTER PLANNING ALTERNATIVES ANALYSIS

a. In the airport master planning process, the planner, along with an environmental specialist, should identify potential key environmental impacts of the various airport development alternatives so that those alternatives that avoid or minimize impacts on sensitive resources are considered. The planner should understand that the consideration of environmental factors in the evaluation of alternatives should be tailored to each airport's size, unique setting, and operating environment, and will typically not be as detailed as that in subsequent environmental reviews. The evaluation of potential environmental impacts should only be done to the level necessary to evaluate and compare how each alternative would involve sensitive environmental resources.

b. Project justifications and the analysis and selection of alternatives, including an explanation of why certain alternatives were not carried forward, should be completed and documented in the master plan before the NEPA process is started. Only those alternatives that could solve the identified problems and have aeronautical utility should be forwarded for NEPA analysis. (See Appendix E, "Consideration of Environmental Factors in Airport Master Planning," for additional discussion of this topic.)

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c. Environmental factors should be considered during the development and analysis of airport project alternatives. This evaluation can help an airport sponsor identify a recommended alternative that the FAA may eventually select as its preferred alternative during the NEPA review process. It also facilitates the decision making process the FAA must complete as part of its project approval process.

1) The facility requirements and alternatives analysis chapters of the master plan should provide sufficient documentation regarding the justification for each project so that these chapters may serve as the basis for the purpose and need section of any environmental document.

2) Planners and environmental specialists should identify the potential key environmental impacts of each development project as part of the master plan alternatives analysis. Categories of potential impacts are defined in FAA Order 1050.1, *Environmental Impacts: Policies and Procedures* and FAA Order 5050.4, FAA Airports guidance for complying with NEPA. A matrix showing each alternative and its potential environmental impacts may be useful for subsequent environmental processing.

3) For some airports, only a few of the environmental impact categories will need to be discussed in the alternatives analysis (such as noise, wetlands, and social impacts), based on location-specific environmental issues identified in the environmental overview. Planners do not need to list each specific impact category mentioned in FAA Order 5050.4, but only those resources the alternatives would likely affect. In many cases, a simple environmental screening will be sufficient to identify those impacts. Detailed impact analyses will be conducted in any Environmental Assessment or Environmental Impact Statement that follow the master plan.

d. Permits that may be needed for each proposed project should be identified in the alternatives analysis. Although such requirements can vary greatly from state to state and within each locality, some of the permits that are usually necessary include:

- Clean Water Act, Section 404 Dredge and Fill Permit
- Air Quality Permit for on-site batch plants or other construction-related activities
- Local government construction permits
- Growth Management Permits
- United States Fish and Wildlife Service, National Marine Fisheries Service opinions, or State Wildlife and Game Commission Permits, if protected and endangered species could be impacted
- Clean Water Act, National Pollution Discharge Elimination System Permits

503. FURTHER GUIDANCE ON CONSIDERATION OF ENVIRONMENTAL FACTORS IN AIRPORT MASTER PLANNING

Appendix D, "Consideration of Environmental Factors in Airport Master Planning," contains recommendations on how to evaluate environmental factors for large or complex projects in airport master planning. It contains a discussion of the interaction of the airport planning and environmental processes and recommendations on how to effectively integrate these processes. The appropriate treatment of environmental factors in airport master planning can make subsequent detailed environmental processing more efficient and speed the completion of airport development. Although Appendix D is primarily intended for large and complex projects, many of the techniques in the guide can be applied to all levels of master planning.

504. DOCUMENTATION GUIDELINES

a. The existing conditions chapter should document the airport's environmental setting. The alternatives analysis chapter should document the potential environmental impacts associated with each development project alternative. In addition, the master plan should identify potential Federal, State, and local permits that may be required for each project alternative. Planners, with the help of environmental specialists, should include a matrix in the alternatives analysis chapter of the master plan that lists each development project alternative and its associated potential environmental impacts and required permits. This will be beneficial in subsequent environmental processing.

b. Planners should use appendices for the majority of the technical documentation, such as noise analysis, wetland mapping, and threatened and endangered species reports to improve the readability and organizational flow of the alternatives analysis chapter.

c. The potential environmental impacts of the proposed airport development alternatives should be addressed in a candid manner and written so that the public easily understands them.

Chapter 6 Existing Conditions

601. GENERAL

a. Most data gathering for a master plan study takes place when planners evaluate existing conditions. Typical broad categories of information to be collected include: the history of the airport; description and condition of physical facilities on the airport including buildings and airfield pavement; the regional setting of the airport and surrounding land uses; the environmental setting of the airport; socioeconomic and demographic data for the airport service area; historical aviation activity; and airport business affairs.

b. To initiate data collection, planners should carefully review the scope of work and verify the type and quantity of data needed for subsequent analyses. It is easy to collect information that is not really necessary or to fail to gather critical information needed for later analyses. Planners can avoid these mistakes by carefully reviewing the scope of the study.

c. To avoid unnecessary data gathering, planners should use existing data as much as possible. Previous master plans, other recent planning studies, and regional planning agencies can provide useful information that should be reviewed before any data gathering begins. However, planners should ensure the validity of the existing data before using them for the master plan study.

602. BACKGROUND SECTION

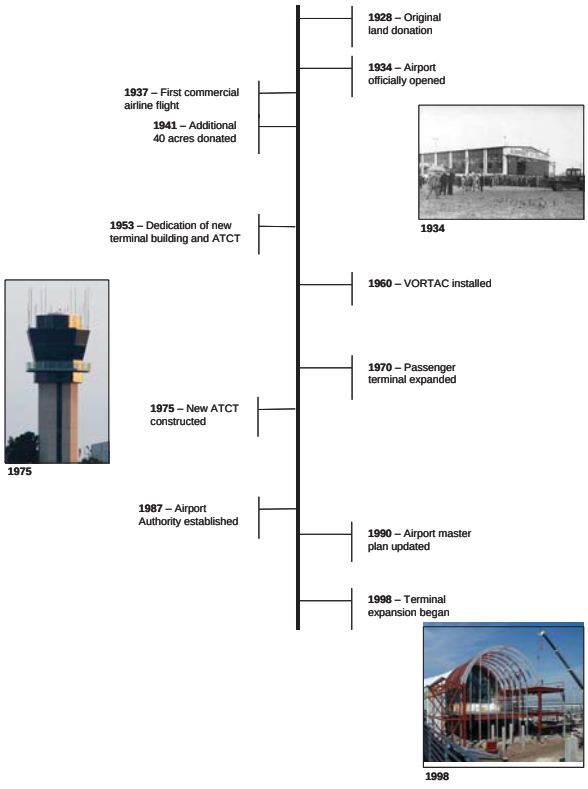
a. The background section should provide a brief overview of the history of the airport, describe its aeronautical role in the national aviation system, and identify its role in the community's infrastructure. Many sponsors periodically assemble information about the economic benefits of their airport, such as employment, direct salaries, and air service, which can be summarized in the background section.

b. Major milestone events in the history of the airport, such as ownership changes, construction of significant facilities, and the introduction of air service can be identified. A timeline, like that shown in Figure 6-1, may be used to present this information.

603. INVENTORY AND DESCRIPTION OF EXISTING FACILITIES

a. A significant portion of the inventory will be devoted to identifying the existing physical facilities at the airport. Drawings and other documents in FAA databases and on file with airport management are a good source of data and should be reviewed early in the inventory effort. These data may need to be supplemented with field observations, personal interviews with tenants and users, Internet searches, and surveys of passengers and employees.

Figure 6-1: Timeline of Events



b. Classifications that are commonly used to organize this information include the following:

1) ***Airfield/Airspace*** – The functional use and geometry of runways, taxiways, and holding aprons; lighting, marking, and signing of runways and taxiways; navigational aids; visual approach aids, and instrument approach procedures. Information on the use of the airspace and how air traffic is managed should also be collected, including operational limitations resulting from traffic interaction with other airports or reserved airspace, obstructions to air navigation, noise abatement procedures, and airfield or navigational aid shortcomings. Planners should also compile historical data on weather conditions, such as prevailing wind direction and speed, as well as the occurrence of critical combinations of ceiling and visibility. The existence of, and the need for, Remain-Overnight-Parking (RON) should also be determined.

2) ***Commercial Passenger Terminal Facilities*** – Inventory of terminal building space by functional use and size: check-in hall/ticket lobby, number of gates, lineal feet of gate frontage, aircraft parking apron area, restaurants and other concession space, and passenger security screening procedures. Surveys conducted in hold rooms are often used to gather information about passenger characteristics that can be useful in determining future facility requirements.

3) ***General Aviation Facilities*** – The quantity and type of hangars; transient aircraft parking apron areas, tie-down positions; general aviation terminal facilities; aircraft parking aprons; fixed base operators; flight schools; pilot shops; and the number and mix of based aircraft.

4) ***Cargo Facilities*** – The quantity and area of air cargo buildings and aircraft parking aprons. At airports with significant air cargo activity, freight forwarders and other support functions are often located in areas adjacent to the airport. These should be identified on the airport layout plan.

5) ***Support Facilities*** – The quantity and type of support facilities at an airport that encompass a broad set of functions that ensure smooth and efficient airport operation, include Aircraft Rescue and Fire Fighting stations, airport administrative areas, airport maintenance facilities, airline maintenance hangars, flight kitchens, aircraft fuel storage, heating and cooling systems, FAA facilities. For airport towers, determine their hours of operation.

6) ***Access, Circulation and Parking*** – The quantity and type of ground access systems and commercial areas that serve the airport, or are served by it, such as on-airport access roads, circulation and service roads, parking and curb space, including information on their alignment, condition and capacity. Also include information on public transportation services, such as bus, rail, taxi and limousine, and the split between personal and public transportation. Consultation with state and local transportation agencies responsible for planning and operating surface transportation systems should produce data on proposed highway and transit plans, as well as traffic density statistics relative to surface systems leading to and from the airport. Furthermore, include information on rental car facilities and activity. It may difficult

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to obtain information from rental car companies, but rental car facility planning is typically a critical element of planning for the terminal area and parking facilities, even at smaller airports.

7) ***Utilities*** – Description of major elements of the infrastructure that service the airport's utility demands for water, sanitary sewer, communications, heating and cooling, and power. Historical consumption data may be necessary to quantify future utility loads. Storm-water drainage, deicing and industrial waste disposal systems should also be included.

8) ***Other*** – Non-aeronautical uses such as recreational facilities and parks, industrial parks, agricultural or grazing leases, and retail businesses.

c. The inventory of existing facilities need not include all the classifications described above. That list is a general outline that should be modified to conform to the specific circumstances of an individual airport. For example, a general aviation master plan does not need a section on commercial passenger terminal facilities. Similarly, a plan for a large commercial service airport with little general aviation or air cargo activity could include the inventory of those facilities in a subsection describing support facilities.

d. Whatever format is used to describe existing conditions should be followed in subsequent chapters, using a parallel structure, to describe demand/capacity and determination of facility requirements, identification and evaluation of alternatives, presentations of estimated capital costs, and the airport plans chapter.

e. The inventory of existing conditions at an airport is a critical task in a master plan study and must be closely managed. Data should be collected only when there is a clear understanding of the need for the information to support the demand/capacity analyses and determination of facility requirements.

604. DESCRIBE REGIONAL SETTING AND LAND USE

a. A master plan study should examine the regional setting of an airport and the land use patterns around it. This is a critical task, because the impact of airport planning decisions can extend well beyond the airport property line.

b. Collect information on the political boundaries of the airport and the political entities with jurisdiction over the operation of the airport and adjacent land uses. Identify the airport service area and the presence and role of airports that might compete with the study airport.

c. Collect all applicable documents, such as official maps, the latest area-wide comprehensive land use and transportation plan, applicable municipal zoning ordinances and other land use controls and unusual building code provisions, including height zoning ordinances, noise overlay zones, and airport overlay districts. The development of practical land use strategies requires an understanding of the political context and local preferences regarding land use.

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d. Identify the land uses in areas that will be exposed to airport operations. Land use is a continuously changing process, particularly in urban environments, so the land use inventory should collect information on planned and proposed land uses, as well as on existing uses. Note if there are any governmental programs designed to direct land use patterns in the area under review. For example, if the airport sponsor has completed a noise compatibility-planning program, it should contain valuable information on land use.

e. Identify land uses that may affect the safe operation of the airport or influence its expansion. Structures that could obstruct air navigation, or the presence of other airports that may interfere with the study airport, are the principal safety concern. Also identify areas located near the airport that may represent a potential hazard to aircraft, such as flood control areas, stockyards, and sanitary landfills.

f. Use geographic information systems (GIS), aerial photographs, topographical maps, obstruction charts, aeronautical charts, approach plates and other mapping tools to examine and display land use details. Many local governments have comprehensive GIS systems that contain electronic files for land use analysis and zoning.

g. Consider off-airport drainage and flood control issues, which may be affected by airport development.

605. ENVIRONMENTAL OVERVIEW

a. The principal objective of an environmental overview is to document environmental conditions that should be considered in the identification and analysis of airport development alternatives. In the past, master plan studies often focused only on the environmental consequences of the recommended development plan. In those cases, much of the environmental overview would be conducted while other technical analyses were already underway and the environmental data would not be considered in the formulation of alternative development concepts. Current practice is to develop the alternatives with the subsequent environmental processes in mind and to consider environmental data in the evaluation of the alternatives. As a result, the master plan may aid in the formation of the purpose and need statements in subsequent environmental documents.

b. Noise levels and air and water quality are the most common environmental concerns. However, other environmental conditions in and around the airport should also be examined, including: solid waste generation and disposal; toxic material disposal; floodplains and wetlands; endangered and threatened species of flora and fauna; biotic communities; parklands and recreational areas; historic, architectural, archaeological and cultural resources; and prime and unique farmland. Planners should refer to the current version of FAA Order 1050.1, *Environmental Impacts: Policies and Procedures,* for a complete list of environmental impact categories that may need to be examined. In addition to NEPA requirements, planners should consider appropriate state environmental regulations. Past and current uses of airport property should be examined to identify areas that may be contaminated, including fuel farms, chemical or agricultural aerial application refilling stations, and hangar areas used for various industrial processes such as aircraft maintenance and plating.

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c. Planners should ask local resource agencies to provide any information they think should be considered in the process of identifying and evaluating alternative development options.

d. Any existing airport noise or environmental programs should be discussed in the environmental overview.

e. When cost effective, data collected in the environmental inventory can be placed in a GIS database for better data visualization, communication, and analysis.

606. DEVELOP SOCIOECONOMIC DATA

a. Socioeconomic data serve two purposes in a master plan study: to ascertain the nature of the community and market the airport serves and/or impacts and to provide specific inputs for the preparation of aviation demand forecasts, particularly econometric demand models.

b. An effective understanding of the community is helpful in ensuring that the planning is responsive to its long-term needs. Planners should focus on those socioeconomic factors that affect the community's need for air transportation. For example, an economy based on tourism would have air transportation needs that would be quite different from those of an agricultural region.

c. A vast array of socioeconomic data are available from many different sources, including a number of commercial vendors; the U.S. Bureau of the Census; metropolitan planning commissions; and state, county, or local agencies. Planners should be careful when using different sources of socioeconomic data to ensure compatibility.

607. ASSEMBLE HISTORICAL AVIATION ACTIVITY

a. The historical data necessary for forecasting aviation demand are generally available in the records maintained by the airport. At airports with FAA airport traffic control towers, FAA records of operations by commercial service, air taxi, military, and general aviation aircraft and revenue passenger enplanements are available in the Air Traffic Activity Data System (ATADS) on the FAA Policy Office's data system website at http://www.apo.data.faa.gov/. At airports without control towers, airport records, FAA Form 5010, *Airport Master Record,* and airport system plan studies are good sources of information.

For commercial service activity, planners should collect data that identify the air carriers; the proportion of operations and enplanements by each; markets served; the number of originating, terminating, and connecting passengers; the proportions of domestic and international passengers; and air cargo activity. It will also be useful to have a breakdown of the fleet mix of aircraft using the airport.

For general aviation activity, planners should collect data that identify the category and class of aircraft, types of fuels those aircraft use, the type of airport services used, and the availability of hangars for tenant and transient aircraft.

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b. Master plans for large airports often involve the use of computer simulation models. For an airfield simulation, planners will need a detailed schedule of arrival and departure times for all commercial operations. Records for average or peak days can often be obtained from airport tower records, radar tapes, or noise monitoring systems. Commercial vendors such as the *Official Airline Guide* can also be helpful. For terminal and landside simulations, planners will need the passenger flow volumes in each terminal associated with the aircraft schedules.

608. FINANCIAL DATA

Airport master planners must examine an airport's financial resources, including its basic business model, operating revenues and expenses, and sources and uses of capital funds.

a. **Airport Business Model** – Summarize the airport's basic business model to help planners organize the vast amount of financial data available at most airports. The business model summary should describe the financial operations of the airport, including how its costs and revenues are charged or credited to airport users and how any operational surplus or deficit is handled. In addition, the business model summary should outline how the airport typically funds capital projects (i.e., with AIP and other grants, Passenger Facility Charges, airport revenue bonds, and so forth). If the airport sponsor owns and operates a multi-airport system, the business model summary should discuss how the financials for the study airport are addressed in relation to the whole airport system.

b. **Operating Revenues and Expenses** – Summarize broad categories of operating revenues and expenses. The FAA requires all commercial service airports to submit financial information to the FAA annually on FAA Form 127 and these reports may provide a good starting point. Airport managers often divide operating revenues into airline revenues and non-airline revenues. Non-airline revenues are often subdivided into categories such as terminal concessions; rental car; parking; hangar, land, and other rentals; other; and tax revenues. Operating expenses are often divided into broad categories such as personnel, maintenance, utilities and supplies, other, and debt service.

c. **Capital Funding** – Summarize the airport's ongoing capital improvement program and how it funds its capital development program. The capital improvement program can be funded from many sources, including revenues from the airlines, concessionaires, other airport tenants, tax levies (if applicable), passenger facility charges, AIP grants, other federal and state grants-in-aid, and airport revenue bond proceeds.

The financial feasibility of the capital improvement program will be determined largely by the magnitude and reasonableness of the charges, rents, and taxes paid by airport users, tenants, and others. The information collected in this inventory will be used to prepare a financial plan for the recommended development program.

Much of the information discussed in the preceding paragraphs relates primarily to the financial data for commercial service airports and larger general aviation airports. Many

smaller general aviation airports will not have such data readily available; however, such information may be part of the financial records of the sponsor.

609. DOCUMENTATION GUIDELINES

a. The documentation of existing airport conditions should make liberal use of drawings, tables, aerial photographs, and exhibits produced from geographic information system databases. Presented in this manner, such information is easy to understand, interpret, and locate for later reference.

b. Planners do not need to include all collected information in the report. Some should simply remain in work files until needed to support the technical analyses.

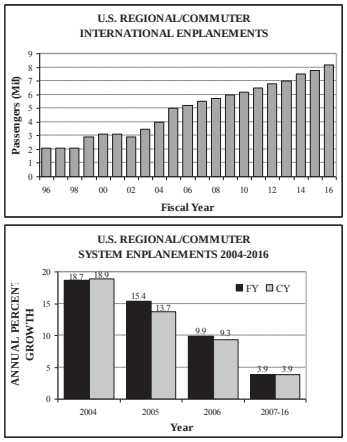
Chapter 7 Aviation Forecasts

701. GENERAL

a. **Purpose of Aviation Forecasts** – Forecasts of future levels of aviation activity are the basis for effective decisions in airport planning. These projections are used to determine the need for new or expanded facilities. In general, forecasts should be realistic, based upon the latest available data, be supported by information in the study, and provide an adequate justification for airport planning and development. Any activity that could potentially create a facility need should be included in the forecast.

Planners should prepare a reliable activity baseline, select an appropriate forecast methodology, develop a forecast, compare it to other forecasts for reasonableness, and submit the forecasts to the FAA for approval. The planning agency should use appropriate statistical techniques to estimate activity where actual operations counts are not available.

Figure 7-1: Sample of FAA Forecast Graphs



Source: FAA Aerospace Forecasts, Fiscal Years 2005-2016, U.S. Department of Transportation, Federal Aviation Administration, Office of Aviation Policy & Plans, March 2005

b. **Level of Forecast Effort** – The level of effort required to produce a planning forecast will vary significantly from airport to airport. Considerable effort, including the use of elaborate forecasting tools and techniques, may be warranted in the case of more complex projects. An existing forecast, on the other hand, may be all that is required for simpler projects. Planners should determine the appropriate level of forecasting effort in the course of pre-planning and scoping the study.

A number of forecasts are readily available for use in developing and evaluating the master plan forecast. These include the Terminal Area Forecast (TAF), state aviation system plans, and other planning efforts.

c. **Use of the Forecasts** – Prior to use in the master plan, the proposed forecasts must be submitted to the FAA for review and approval. Once approved, the forecasts may be used to provide an initial timetable for facility improvements, as a basis for the development of alternatives to meet the projected demand, and as a basis for environmental analyses and economic and financial plans

702. FORECAST ELEMENTS

a. **Types of Aviation Activity** – To establish the demands likely to be placed on airport facilities, forecasts should include all relevant aviation demand elements, including both the type and level of aviation activity expected at the airport over the planning horizon. The specific activity elements to be forecast will vary depending on the size and category of an airport and the objectives of the master plan study. Planners should note if the forecast projects the introduction of jet aircraft at the study airport, since this will be important to the future environmental review process.

Aviation demand forecasts typically include aircraft operations and identify the critical aircraft. Forecasts for commercial service airports will also include, at a minimum, passenger enplanements, while forecasts for general aviation airports will include the number and type of based aircraft. The aviation demand elements to be forecast are shown below in Figure 7-2.

Figure 7-2: Aviation Demand Elements

Required	Included Where Appropriate
Operations (annual)	
Itinerant	Domestic vs. International
Air Carrier	Annual Instrument Approaches
Air Taxi and Commuter (Regional)	IFR vs. VFR Operations
General Aviation	Air Cargo Aircraft Operations
Military	Touch and Go Operations (Training)
Local	Helicopter Operations
General Aviation	Average Load Factor
Military	Fuel Use
Passengers (annual)	
Enplanements	Passenger and Cargo Data
Air Carrier	Domestic vs. International
Commuter	General Aviation Passengers
Enplanements	Helicopter
Originating	Air Taxi
Connecting	Other
	Number of Student Pilots
	Number of Hours Flown
Aircraft	
Based Aircraft	Average Seats/Aircraft
Aircraft Mix	
Critical Aircraft	

b. **Term of Aviation Forecasts** – Prepare forecasts for short-, medium- and long-term periods and specify the existing and future critical aircraft. Short-term forecasts, for up to five years, are used to justify near-term development and support operational planning and environmental improvement programs. Medium-term forecasts (a 6- to 10-year time frame) are typically used in planning capital improvements and long-term forecasts (beyond 10 years) are helpful in general planning.

c. **Peak Period Forecasts** – Forecasts of annual aircraft operations or passenger activity may not adequately describe the needs of individual airport facilities. Because they average demand levels over the course of an entire year, annual metrics are only useful when activity tends to be evenly distributed over the hours, days, and months of a particular airport facility's operation. However, most airports have peak periods where demand far surpasses those averages. Stresses arising from activity peaks are critical at commercial service airports serving as hubs or that have substantial international traffic. Master plan forecasts must include appropriately defined peak period activity levels for facilities planning, such as terminal buildings and ground access systems.

703. FACTORS AFFECTING AVIATION ACTIVITY

Planners preparing forecasts of demand or updating existing forecasts should consider socioeconomic data, demographics, disposable income, geographic attributes, and external factors such as fuel costs and local attitudes towards aviation.

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a. **Economic Characteristics** – The economic characteristics of a community will affect the demand for air traffic. In addition to national and regional economic activity, these include specific, identifiable, local activities that distinguish the geographic area served by the airport. The type of industry in an airport's service area also will affect aviation demand, with manufacturing and service industries tending to generate more aviation activity than resource industries such as mining.

b. **Demographic Characteristics** – The demographic characteristics of an area's population also affect the demand for aviation services. Demographic characteristics influence the level, composition, and growth of both local traffic and traffic from other areas. Factors such as leisure time and recreational activity are important in estimating activity, but can be difficult to measure. Another important demographic characteristic is the level of disposable income, usually measured on a per capita basis, which is a good indicator of the propensity to travel and general aviation aircraft purchases and use.

c. **Geographic Attributes** – The geographic distances between populations and centers of commerce within the airport's service area may have a direct bearing on the type and level of transportation demand. The existence of populations and centers of commerce beyond an airport's service area may indicate the need for additional airports that serve transportation demand. The physical characteristics of the area and the local climate may also be important, since they may stimulate holiday traffic and tourism. The role of the airport within the airport system and its relationship to other airports may also have an effect on the services that are demanded at the airport.

d. **Aviation-related Factors** – Business activity, changes in the aviation industry, and local aviation actions can markedly affect the demand for airport services. Business developments in the airline industry, such as consolidations, mergers, and new marketing agreements, can affect airline operations at a particular airport, while fractional ownership can affect others. Wider industry trends, such as the introduction of new low-fare service, the introduction of new classes of aircraft, and the growth or curtailment of airline hubbing, may also alter the level and pattern of demand. To the extent that such actions affect all aviation activity in a region or the country, their effects will be captured in the FAA's forecasts. If, however, only the demand at a particular airport is affected, appropriate adjustments should be made in that airport's forecast. Actions taken by local airport authorities, such as changes in user charges, ground access policies or their support services can also stimulate or hinder the demand for airport services. Investment decisions made as a result of the planning process itself can also produce change by removing physical constraints to airport growth, which should be reflected in the forecasts.

e. **Other Factors** – External factors may also influence the demand for airport services. These include economic actions such as fuel price changes, availability of aviation fuels, currency restrictions, and changes in the level and type of aviation taxes. Political developments, including rising international tensions, changes in the regulatory environment, and shifting attitudes toward the environmental impacts of aviation, may also impact future demand and should be considered in developing or updating airport forecasts.

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704. STEPS IN THE FORECAST PROCESS

The forecast process for airport master plan studies consists of a series of basic steps that may vary from airport to airport, depending on the issues to be addressed and the level of effort required to develop the forecast. Steps in this process include the identification of parameters and measures to forecast, review of previous forecasts, determination of data needs, identification of data sources, collection of the data, selection of the forecast methods, preparation of the forecasts, and evaluation and documentation of the results.

Planners should refer to a report prepared by the FAA's Office of Aviation Policy and Plans (APO-110), *Forecasting Aviation Activity by Airport*, dated July 2001, to help them determine what approach to use. That report can be accessed at http://www.faa.gov/data_research/aviation_data_statistics/. The APO data systems web site, at http://www.apo.data.faa.gov, provides historical traffic counts, forecasts of aviation activity, and delay statistics. The forecast process can be summarized as follows:

a. **Identify Aviation Activity Measures** – The aviation activity measures that planners need to forecast are the level and type of activities that are likely to affect facility needs. For airfield planning, the most important activities are aircraft operations and the fleet mix, since these define the runway and taxiway requirements. As a general rule, plans for general aviation airports require forecasts of aircraft operations and based aircraft. Airports with commercial service require forecasts of aircraft operations, fleet mix, and passenger enplanements. Passenger levels are particularly important, since they determine the size of the terminal building and other important elements of airport infrastructure such as parking facilities and access roads. Planners should forecast instrument operations and instrument approaches, since these data will be needed if they expect to add or upgrade navigational aids and instrument landing systems. For some airports, additional forecast elements may be required, including peak hour operations and peak hour passenger flows.

b. **Review Previous Airport Forecasts** – Planners should review the latest published FAA Terminal Area Forecast for the study airport and any forecasts from an earlier master plan. Contact regional planning bodies and state aviation agencies to determine whether they have conducted airport system planning studies that included forecasts of demand for the study airport.

c. **Gather Data** – Determine what data are required to prepare the forecasts, identify the data sources, and collect historical and forecast data. What data to gather, and for what time period, will depend not only on the parameters to be forecast but also on what data are available from previous airport forecasts. In some cases, it may be necessary to conduct additional activity counts.

d. **Select Forecast Methods** – There are several appropriate methodologies and techniques for forecasting aviation activity at a specific airport. The selection and application of appropriate methodologies and techniques requires professional judgment. A forecast effort may involve a number of different techniques. The FAA report referenced above provides a detailed discussion of several forecasting techniques. The most common techniques include the following:

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1) ***Regression Analysis*** – A statistical technique that ties aviation demand (dependent variables), such as enplanements, to economic measures (independent variables), such as population and income. Regression analysis should be restricted to relatively simple models with independent variables for which reliable forecasts are available.

2) ***Trend Analysis and Extrapolation*** – Typically uses the historical pattern of an activity and projects this trend into the future. This approach is useful where unusual local conditions differentiate the study airport from other airports in the region.

3) ***Market Share Analysis or Ratio Analysis*** – This technique assumes a top-down relationship between national, regional, and local forecasts. Local forecasts are a market share (percentage) of regional forecasts, which are a market share (percentage) of national forecasts. Historical market shares are calculated and used as a basis for projecting future market shares. This type of forecast is useful when the activity to be forecast has a constant share of a larger aggregate forecast.

4) ***Smoothing*** – A statistical technique applied to historical data, giving greater weight to the latest trend and conditions at the airport; it can be effective in generating short-term forecasts.

e. **Apply Forecast Methods and Evaluate Results** – After the list of activities to forecast has been identified, the appropriate forecast methods have been selected, and necessary data have been assembled, the actual forecasts can be prepared. If several methods are used to project specific aviation activities, they will probably produce different estimates. Therefore, an evaluation of the reasonableness of the results and their consistency with other forecasts should be conducted.

A useful procedure in such an evaluation is to prepare a time line showing both forecast results and historical trends. Similarly, one might compare the history and forecast for the airport with the FAA national history and forecast for the same activity parameter. If the comparison of the growth rates shows a significant difference, the planners must be able to explain it. Forecast results may also be evaluated by comparing them with other forecasts prepared for the airport, such as those contained in state or regional aviation system plans. One might also review the operational factors and events implicit in the forecast to determine if differing assumptions regarding those factors have affected the forecast results. For example, a constraint on operations associated with runway and apron limitations at the airport could affect the results. Therefore, it is useful to evaluate forecasts both with these constraints and with the constraints removed, i.e., a constrained and an unconstrained forecast.

If demand levels are likely to be particularly sensitive to one or more factors, the planner should estimate the impact of reasonable changes in the underlying assumptions about those factors. For example, if expected growth in aircraft operations is highly dependent on the continued operation of a fixed base operator (FBO) and there is a reasonable possibility that the FBO will close, the planner should estimate how much that closing would change the predicted demand. The planner should also examine general aviation hangar activity, including the airport hangar waiting list, and estimate how much increased hangar space would change predicted demand.

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If the timing of important demand-generating factors (specific local or national events or activities resulting in an increased demand for aviation services) is uncertain, the forecaster can construct a time line showing the period of uncertainty, during which demand constraints or the diversion of traffic to another airport may be needed. In this respect, the actual number of operations or enplanements in any specific future year is less important than the certainty that a particular threshold will be reached during the planning period. This approach acknowledges that demand is expected to exceed the airport's capacity, but that there is a range of time (with a range of forecast error costs, i.e., costs in terms of delays and reduced service levels as a result of airport capacity not keeping up with aviation demand because of forecast inaccuracy) during which this problem needs to be considered.

When preparing forecasts for airports with declining activity, the forecast should identify the underlying cause for the decline, including a review of national and local trends. A sudden decrease in activity may be temporary, particularly if local income and population are steady or advancing. If the drop in activity takes place more gradually and is sustained, the decline is more likely to continue during the forecast period.

To document an expected upward trend in activity, planners should get letters of support from airlines, fixed base operators, or other users; information from the *Official Airline Guide*, general aviation associations, news articles that document changes at nearby airports, survey data for aircraft activity, and trend data for based aircraft. Such letters should state that the writers plan changes in their operations at the study airport.

Most forecasts should include a sensitivity analysis to measure likely variations in activity if the factors influencing activity change. One method of measuring the uncertainty in the forecast is to use a number of alternative assumptions in preparing it. The use of alternative scenarios should be discussed with FAA staff during master plan study scoping.

It is often useful to provide a range of activity forecasts, that is, to forecast a high level of activity as well as a lower level and to try to determine where within this range the most likely forecast will be found. If a plan uses scenario forecasting and other techniques that develop alternative projections, the airport sponsor can then provide the most likely forecast projections to the FAA for its approval. Having a range of forecast activity allows airport planners to develop flexibility in facilities to accommodate different activity levels.

It may also be useful to develop Planning Activity Levels (PALs) based on the forecast. PALs are selected activity levels that the planner believes may trigger the need for additional airport capacity or other development and may be used for analyzing the benefits of proposed development alternatives. They may also be used to establish thresholds for the implementation of airport development projects. The use of PALs focuses the airport sponsor and the public on the need to plan for aviation activity levels rather than specific timelines.

f. **Compare Forecast Results with the FAA's Terminal Area Forecasts** – Planners should compare their forecast results with those contained in the most recent Terminal

Area Forecast. To facilitate this comparison, the FAA recommends completing the template in Appendix C of the document titled *Forecasting Aviation Activity by Airport* (July 2001).

g. **Approval of the Forecasts** – The general requirement for FAA approval of the master plan study's forecasts is that they are supported by an acceptable forecasting analysis and are consistent with the TAF. Master plan forecasts for operations, based aircraft, and enplanements are considered to be consistent with the TAF if they meet the following criteria:

1) Large, Medium, and Small Hub Airports

a) Forecasts differ by less than 10 percent in the 5-year forecast and 15 percent in the 10-year period, or

b) Forecasts do not affect the timing or scale of an airport project.

2) Other Commercial Service Airports

a) Forecasts differ by less than 10 percent in the 5-year forecast and 15 percent in the 10-year period, or

b) Forecasts do not affect the timing or scale of an airport project, or

c) Forecasts do not affect the role of the airport as defined in the current version of FAA Order 5090.3, *Field Formulation of the National Plan of Integrated Airport Systems*.

3) General Aviation and Reliever Airports

Where the 5- or 10-year forecasts exceed 100,000 total annual operations or 100 based aircraft:

a) Forecasts differ by less than 10 percent in the 5-year forecast and 15 percent in the 10-year period, or

b) Forecasts do not affect the timing or scale of an airport project, or

c) Forecasts do not affect the role of the airport as defined in the current version of FAA Order 5090.3, *Field Formulation of the National Plan of Integrated Airport Systems*.

When the 5- or 10-year forecast is for less than 100,000 total annual operations or 100 based aircraft, the forecast does not need to be reviewed at FAA Headquarters, but the data should be provided to the FAA for the annual update of the TAF.

Further guidance on FAA review and approval of aviation forecasts is defined in a memorandum dated June 2008 that can be found at http://www.faa.gov/airports/planning_capacity/.

Any substantial differences between the master plan forecasts and the TAF must be resolved before moving onto subsequent parts of the master plan. If the planner expects the master plan forecasts to be inconsistent with the TAF for any reason, the FAA's Project Manager should be contacted early in the forecast development process to discuss the implications of the variance.

Locally prepared forecasts may contain a more detailed analysis of local economic conditions or development that is not considered in preparing the TAF. Therefore, airport sponsors should review the FAA's TAF for their airport on a regular basis and notify their FAA Planner/Planning Program Manager when they believe local conditions merit a revision to the TAF. When requesting a change to the TAF, the airport sponsor should provide reliable historical data and letters from individuals with the authority to affect operations, which document planned changes in operations.

705. DOCUMENTATION

Present the results of the forecast process and a description of the process itself as a separate chapter in the master plan report. The forecast chapter should contain extensive documentation. The level of detail provided should be sufficient to enable both the FAA to analyze the results, for planners to use them later in the planning and environmental process, and so the forecast can be adapted for future planning efforts.

The master plan report should summarize each forecast element, explain the forecast methods used, highlight significant assumptions, clearly and concisely present the forecast results, and provide an evaluation of the forecast. Tabulations of historical and forecast data should be included for each forecast element; graphical presentations of key time series and forecasts are usually helpful. FAA recommends completing the template of the report titled *Forecasting Aviation Activity by Airport* dated July 2001. Explanations should be provided if major variances from historic trends are forecast. For complicated forecasts, an appendix to the technical report should provide detailed documentation of the methodology.

706. SOURCE DATA

The following sources may provide assistance for planners in preparing forecasts for master plan studies:

a. **Terminal Area Forecasts** – The FAA's Terminal Area Forecast (TAF) contains historical data for at least the past 10 years and forecast data for the next 15 years. The TAF summary report for each airport includes, as appropriate: aircraft operations (landings and takeoffs, local and itinerant; total operations; and air carrier, commuter/air taxi, general aviation, and military operations), enplanements (total, air carrier and commuter), and total instrument operations. The TAF presumes an unconstrained demand for aviation services.

b. **National Forecasts** – The FAA's Office of Aviation Policy and Plans publishes two other major forecasts, the FAA Aerospace Forecasts and the FAA Long-Range Aerospace Forecasts. The FAA Aerospace Forecasts are estimates of national aviation demand for the next 12 years.

Figure 7-3: Sample Table from Terminal Area Forecast Summary Report

Summary of Enplanements and Airport Operations at FAA Towers and Contract Towers

Enplanements at Towered Airports

					Annual Compound Growth Rate	
	Count	2003	2010	2020	2003-2010	2010-2020
Large Hubs	33	460,486,763	623,735,048	832,432,922	4.43	2.93
Medium Hubs	35	113,930,143	146,148,406	191,273,310	3.62	2.73
Small Hubs	66	43,914,690	63,050,236	80,139,022	3.69	2.43
Non Hub Towers	351	17,122,217	19,602,930	23,380,002	1.95	1.78
Total	485	635,453,813	852,536,620	1,127,225,256	4.17	2.83

Operations at Towered Airports

					Annual Compound Growth Rate	
	Count	2003	2010	2020	2003-2010	2010-2020
Large Hubs	33	14,356,535	17,766,287	22,010,896	3.09	2.17
Medium Hubs	35	6,972,068	7,846,402	9,413,334	1.70	1.84
Small Hubs	66	8,217,052	8,788,618	9,838,151	0.97	1.13
Non Hub Towers	351	33,230,486	35,369,207	40,008,626	0.90	1.24
Total	485	62,776,141	69,770,514	81,271,007	1.52	1.54

Source: Terminal Area Forecast Summary Report, Fiscal Years 2004 – 2020, Prepared March 2005, U.S. Department of Transportation, Federal Aviation Administration, FAA-APO-05-1

c. **Historical Data** – The FAA's Air Traffic Activity Data System (ATADS) contains historical aviation operations data for operations at Air Route Traffic Control Centers and FAA- and contract-towered airports. Monthly and annual counts of aircraft operations and instrument operations by user group are available at the facility, state, regional, and national level. These data can also be accessed at the APO website.

d. **Historical Data at Non-towered Airports** – Estimating current activity at non-towered airports can be difficult. The traditional method of using operations data from a similar towered airport to estimate the activity at a non-towered airport has been found to be unreliable. Records of fuel sales at the non-towered airport may be a more reliable indicator. However, the most reliable method has been found to be using a relatively inexpensive acoustical aircraft activity counter to obtain a series of cluster samples systematically drawn throughout the year and estimating the annual activity from these samples. The samples not only provide information on total annual operations, but also on the seasonal variability and peaking characteristics of the activity. For further information on this subject, see Transportation Research Record 958: "Ford-Shirack Study," *Estimating Aircraft Activity at Non-towered Airports: Results of the Aircraft Activity Counter Demonstration Project*.

The characteristics of operations at a non-towered airport, such as whether the operations are local or itinerant and what type of aircraft are using the airport, are as important as the number of operations. Visual surveys to determine these and other observable

characteristics can be expensive. A statistical sample can greatly reduce the cost. In 1987, the Oregon Department of Transportation published the results of a study in which the characteristics of operations at non-towered airports were determined through statistical sampling. See *Statistical Sampling and Estimating Procedure for Aircraft Activity Characteristics*, Oregon Aeronautics Division, Oregon Department of Transportation, April 1987.

e. **State and Regional Airport System Planning Data** – State and regional airport system plans can provide information, direction, and policy guidance for airport master planners. An airport system plan (at least for all NPIAS airports) provides forecasts and describes the roles of the various airports in the area and the distribution of traffic among them.

f. **Socioeconomic Data** – Planners should use recognized sources of socioeconomic data available from local, regional, state, and federal planning organizations. Key data elements include population, employment, income, and other measures. If possible, data should be presented on an historical basis and projected into the future.

g. **Other Data Sources** – Additional sources of data that should be reviewed are the *Official Airline Guide (OAG)*, FAA Form 5010, Airport Master Record, and other existing studies or reports.

The local FAA Airports office can provide additional guidance on using forecasting tools, techniques, and methods. Whether the aviation forecasts are being prepared by the airport planning staff or by consultants, early consultation and periodic discussion with FAA airports and forecasting staff are encouraged. Such discussions are particularly important when planners are considering using significantly different forecast assumptions and methods in developing the basis for a specific airport master plan or where there are differences between existing forecasts. These early discussions will be especially useful when the forecasts indicate that federal grants for airport improvements at the study airport would be justified sooner than called for in the existing TAF.

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Chapter 8 Facility Requirements

801. GENERAL

a. Planners should determine what, if any, additional facilities will be required to accommodate forecast activity. This task begins with an assessment of the ability of existing facilities to meet current and future demand.

In some cases, the airport sponsor may decide that it is in the community's best interest for the airport not to continue to grow to accommodate forecast activity, or to accommodate forecast activity only up to a point. In these cases, the master plan should document this decision and indicate the probable consequences of the decision (e.g., demand will be capped, the demand will go unmet, or the demand will be diverted to another airport).

This analysis needs to clearly define the aviation problems and why the airport needs to resolve them. Findings supporting a problem, and the potential solutions to that problem, must be clearly documented. Planners should ensure that this needs analysis provides information sufficient to provide a basis for describing the purpose and need for proposed Federal actions. Care should be taken that the facility requirements are not so narrowly defined that they point to a single solution.

b. Although this AC provides guidance on the facilities commonly found at airports of all sizes, planners should limit their efforts to those elements that are applicable to the study airport. Preparation of an appropriate scope of work in the pre-planning process will ensure that both the airport sponsor and the planners understand what elements should be studied.

c. The requirements for new or expanded facilities reflect the unique circumstances of each airport, such as, but not limited to, the following:

1) Capacity shortfalls, which are commonly driven by growing demand.

2) Enhanced security requirements mandated by the Transportation Security Administration, including the flexibility to respond to changes in threat levels.

3) Updated standards developed and adopted by the FAA or other regulatory agencies, to correct existing non-standard conditions and eliminate existing modifications to standards. If there are approved modifications to standards, planners should review the reasoning that led to those adjustments. The facility requirements chapter should indicate if those deviations will continue or will be eliminated in the new master plan.

4) The airport sponsor's strategic vision for the airport. Such needs are typically associated with a sponsor's strategic business plan, mission statement, or similar plans that will require modification of the airport.

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5) The outdated condition, arrangement, or functionality of existing facilities.

d. At some airports, planners can use simulation models to help determine facility requirements. For large airports, simulations can model major components of an airport, including the airfield system, airspace environment, passenger and baggage flows in the terminal, and ground access networks. For smaller airports, simulations can model usage projections, passenger flows, and other support requirements including fixed base operator, maintenance, flight school, and fuel support requirements.

e. Many of the significant improvements needed at an airport are actually driven by the demand level, not a time frame or a specific year. Therefore, planners should identify what demand levels will trigger the need for the expansion or improvement of a specific facility. In this way, the sponsor can monitor growth trends and expand the airport as demand warrants. (For a discussion of the use of Planning Activity Levels, see Section 704.e.)

f. The findings from capacity analyses and facility requirement determinations help develop alternatives that can best meet future demand. Since critical investment decisions will be based on these analyses, the planner, airport sponsor, and FAA should consider the cost of inadequate analysis in determining the level of effort and sophistication of the capacity and delay analyses. If the analyses are not sophisticated enough, development funds could be wasted on alternatives that do not meet future demand. On the other hand, planning funds can be wasted by capacity and delay analyses that are more sophisticated than they need to be. Future facility needs and investment are to be based on these analyses and it is critical that these analyses be adequate, supportable, and defendable. Therefore, the need for more refined analysis is an important consideration during master plan scope of work development.

802. EMERGING TRENDS

a. The aviation industry is always evolving, and these changes affect the size, quantity, and type of airport facilities needed to accommodate future demand. The FAA, airport management, and planning professionals must remain aware of changes that impact airport planning and development, some of which currently include:

1) Airline industry consolidation, changes in air service patterns, and aircraft fleet decision making.

2) The continued introduction of new generation aircraft, which may present airport-aircraft compatibility challenges for airports as some may need to adapt their airside and terminal facilities to accommodate longer and wider aircraft with greater seating capacity than the aircraft they replaced.

3) Transformation of the National Airspace System (NAS) by Next Generation Air Transportation System (NextGen) initiatives. NextGen is the FAA's plan for modernizing the national air transportation system. Airspace optimization and performance-based navigation are key components of NextGen. NextGen initiatives may affect airspace and airfield capacity, airfield and terminal area operations,

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aircraft equipage requirements, and on- and off-airport obstruction management requirements. Airport master plans should consider the specific NextGen initiatives and related technologies and flight procedures that may be implemented over the planning horizon.

4) Enhancements in information technology that are enabling more data to be transferred faster, influencing everything from airline scheduling and weather planning to advances in self-service passenger processing such as ticketing and check-in. Terminal automation systems will affect both functional space requirements in the terminal building as well as space allocation among tenant airlines and others.

5) Greater focus on sustainability. In the master plan, the planner should identify or consider practices that will enhance the airport's overall sustainability. These may include initiatives that maximize linkages with public transportation to reduce private vehicle trips to the airport, promote recycling and waste minimization, increase energy efficiency (including the use of alternative energy sources), reduce airport-related emissions, facilitate airport-related community and economic development, and increase community engagement in the airport planning and development process. Specific sustainability goals and objectives and strategies or measures may be identified during the planning process.

b. Planners should examine emerging industry trends and identify those that may influence airport capacity and facility needs, bearing in mind that not all trends will affect all airports in the same manner (and some may not be affected at all). Where considerable uncertainty about future demand or the role of the airport exists, plans that can be implemented in phases or adapted to new industry requirements and demands will allow the airport to meet future needs in a timely and sustainable manner.

803. DESIGN HOUR DEMAND

a. For master plans, estimates of annual and peak-hour demand for airline passengers, aircraft operations, cargo, and vehicle trips should be used to identify future facility needs. Peaking characteristics can provide insight on seasonal and time-of-day variations in demand; failure to consider these characteristics can result in high congestion and low levels of service during peak hours.

b. In the U.S., the evaluation of peak-hour demand is often based on the peak hour of the average day of the peak month. This approach provides sufficient facility capacity for most days of the year, but recognizes there will be some very busy days that experience congestion, queues, and delays, and that it is important that facilities are neither under nor overbuilt. However, for some critical airport systems, the peak hour of the average day of the peak month can substantially understate the demand at peak times, resulting in unacceptable levels of service or overloading of systems to a point that may approach gridlock. Some components of the passenger terminal complex, such as baggage handling systems and security screening checkpoints, are particularly sensitive to this issue.

c. To address these problems, planners may wish to consider alternate methodologies for determining peak-hour demand, such as the percentile of busy hours throughout the year (for example, 90th or 95th percentile). A facility sized to meet such demands should have sufficient capacity and service levels during 90 percent or 95 percent of the hours throughout the year. The specific percentile will depend on the facility being evaluated, the desired level of service, and the unique demand characteristics of the study airport. Methodologies for calculating peak hour demand are further descripted in ACRP Report 82, *Preparing Peak Period and Operational Profiles – Guidebook*.

804. SECURITY CONSIDERATIONS

Security requirements have become very important in planning airport facilities. Planning for security early in the development process can produce designs that accommodate security requirements in a more efficient, less costly, and less intrusive manner. However, specific measures for implementing security requirements will vary in response to shifting threats, evolving technology, and the physical and operational circumstances of individual airports. Planners should meet with representatives of the Transportation Security Administration (TSA) early in the process and be familiar with the current versions of applicable documents, including TSA's *Recommended Security Guidelines for Airport Planning, Design, and Construction* and relevant sections of the Transportation Security Regulations (TSRs). Appendix B, Useful Reference Materials, has a list of applicable TSRs and other security-related publications.

Security requirements will vary depending on the role and service provided at the airport. The information contained in 49 CFR Part 1542, *Airport Security,* describes the security rules and requirements for commercial service airports. Operators of general aviation airports are encouraged to use the recommended guidelines in appropriate TSA publications discussing security at general aviation airports to enhance the security of their facilities. Both commercial service and general aviation airports are extremely diverse and appropriate security measures can be determined only after careful examination of an individual airport.

Terminal facilities also have extensive security requirements, particularly with regard to the location of passenger and baggage screening. Ground access facilities, such as roadways and parking structures, may be subject to security-based siting considerations, including terminal proximity limitations. Security requirements are also becoming an increasingly important element in planning air cargo and general aviation facilities.

805. AIRFIELD AND AIRSPACE REQUIREMENTS

The determination of airfield and airspace requirements includes an assessment of the airports' ability to handle forecast activity levels, analysis of its compliance with design and safety standards, and a determination of design standards for new facilities or the improvement of existing facilities.

FAA Advisory Circular 150/5300-13, *Airport Design*, is a key resource for the planner in virtually all analyses to determine airfield requirements and is frequently referenced in this chapter.

a. **Airfield Capacity Analysis** – Airfield capacity is expressed in terms of the number of aircraft operations that can be conducted in a given period of time. Capacity is most often expressed as annual capacity (or annual service volume) and hourly capacity (or throughput capacity) for a particular runway and taxiway configuration.

At low activity airports, airfield capacity often exceeds the anticipated level of demand and only a minimal analysis is necessary. For airports with higher activity levels, several techniques for determining airfield capacity are available to airport planners. The methodology in FAA Advisory Circular 150/5060-5, *Airport Capacity and Delay*, commonly referred to as the "handbook methods," yields hourly capacities and annual service volumes (ASV) and permits the estimation of aircraft delay levels as demand approaches and exceeds the throughput capacity of each airfield configuration. The handbook methods are typically used for long range planning and the results should be discussed with FAA representatives.

Although the handbook methodology is adequate for many master plans, congested airports may incur higher levels of delay than are typically used in the ASV definitions. ASVs may not be appropriate to use at airports with a 24-hour operation, such as late night cargo operations. For such airports, computer simulation modeling may be necessary to provide the depth of analysis necessary to support major airfield investment decisions. There is no universally adopted simulation tool that must be used in airfield capacity analyses. The FAA's Technical Center supports the simulation engine for the most current version of the FAA Airport and Airspace Simulation Model, which is available to the public free of charge. Both public domain software and proprietary software developed by the private sector are also available for modeling. If simulation modeling is employed, planners must be careful to explain modeling capabilities and limitations, and review key assumptions, inputs, operating configurations and results with appropriate representatives of the FAA.

Aircraft operational delay costs or savings are often used as the measure for comparing various airfield development alternatives. Delay is typically expressed in minutes per aircraft operation, which can be translated into hours of annual delay and easily converted into dollar estimates to be used as a basis for comparison. Traditionally, four to six minutes of average delay per aircraft operation is used in ASV calculation. This can be considered as an acceptable level of delay. When the average annual delays per aircraft operation reaches four to six minutes, the airport is approaching its practical capacity and is generally considered congested.

The selection of a particular airfield capacity analysis technique should be made in the pre-planning phase of the master plan study. The selected technique should be clearly defined in the negotiated scope of work. At the conclusion of the airfield capacity analysis, planners will have a sense of whether an additional runway or taxiway should be included in the alternatives analysis.

b. **Runway Requirements** – Existing and future runways should be examined with respect to dimensional criteria, orientation, length, width, and pavement design strength:

1) ***Dimensional Criteria*** – FAA guidance on dimensional standards is based on a coding system known as the Runway Design Code (RDC). This system is used to relate critical design criteria to the operational and physical characteristics of the aircraft that will utilize a runway. Existing and future RDC classifications are determined from a review of the aviation demand forecasts and an understanding of the airport's existing and future role in the air transportation system. While the RDC classification is assigned to a specific runway, it is appropriate to apply a less demanding RDC to other runways that will not be used by the primary critical aircraft. See FAA AC 150/5300-13, *Airport Design*, for more information on appropriate RDC codes and dimensional criteria requirements.

2) ***Orientation*** – Runway orientation is primarily a function of wind coverage requirements for the existing and projected aircraft fleet mix. Historical wind and weather data can be obtained from the National Oceanic and Atmospheric Administration (NOAA). This analysis is used to determine if additional runways are needed to provide the necessary wind coverage. See FAA AC 150/5300-13, *Airport Design,* for guidance on wind coverage analysis techniques.

Planners should also review runway designation. Periodic changes in magnetic declination may necessitate renumbering the runways. A declination calculator can be found at http://www.ngdc.noaa.gov/seg/geomag/jsp/Declination.jsp. The existence of obstructions and environmental and physical features, either man-made or natural, in approach and departure routes should also be considered in determining runway orientation.

3) ***Length*** – The length of a runway is a function of many factors, the most notable of which are the selection of an appropriate design aircraft and the longest nonstop distance to be flown by the design aircraft from the airport. Aircraft-specific runway length requirements are a function of aircraft physical characteristics at time of flight, weather conditions, and runway conditions. See FAA AC 150/5325-4, *Runway Length Requirements for Airport Design*, for guidance on this analysis. Other common resources for runway length assessments are the aircraft characteristics information published by aircraft manufacturers, consultation with aircraft operators at the airport, and the FAA document, *Best Practices: Planning Airports for Business Jets*. Aircraft manufacturers may be able to provide airport-specific runway length requirements for their aircraft, especially at airports with severe conditions such as high temperatures or high airport elevations.

4) ***Width*** – The required width of a runway is a function of the approach minimums, airplane approach category, and airplane design group for the design aircraft using the runway and is discussed in FAA AC 150/5300-13, *Airport Design*.

5) ***Pavement Design Strength*** – What aircraft types and the critical aircraft expected to use the airport should be used to determine the required pavement design strength, or weight bearing capacity, of airfield surfaces. The required pavement design strength is an estimate based on average levels of activity, and is expressed in terms of aircraft landing gear type and geometry (i.e., load distribution). The pavement design strength is not the maximum allowable weight. Limited operations by heavier aircraft

than the critical aircraft may be permissible. Pavement design and load distribution assumptions can be found in FAA AC 150/5320-6, *Airport Pavement Design and Evaluation*.

c. **Taxiway Requirements** – The taxiway system must provide safe and efficient aircraft movement between the runways and the aprons that serve passenger terminals, cargo, and general aviation facilities. Planners must consider 'cockpit-over-centerline' as the taxiway method for safe and efficient taxiing throughout the airport.

1) The Taxiway Design Group (TDG) relates to the undercarriage dimensions of the aircraft. Taxiway width and fillet standards may require a specific runway to taxiway, and taxiway to taxiway/taxilane separation. Aircraft Design Group (ADG) separation criteria are based on aircraft wingspans and tail heights. ADG separation criteria is the minimum separation criteria for avoidance of collisions, however greater separation may be recommended based on TDG for efficiency in ground maneuvering. Planners should consider upgrading intersections designed using slower judgmental oversteer taxi method to accommodate cockpit-over-center line taxi. Advisory Circular AC 150/5300-13, Airport Design, provides specific fillet geometry to accommodate cockpit over centerline maneuvering at existing runway to taxiway and taxiway to taxiway/taxilane separations. It is appropriate for a series of taxiways on an airport to be planned to a different TDG than another based on expected use. As traffic increases, the taxiway system can become the limiting operational factor, especially if the airfield configuration results in frequent runway crossings by taxiing aircraft, or does not provide sufficient access or bypass capability. The location of taxiway exits may also reduce runway occupancy time, thereby increasing capacity.

2) Planners should re-examine intersections with more than three possible turns "three-node" intersection (see Taxiway Design, AC 150/5300-13), the location and type of runway exit/entrance taxiways as well as the location of parallel taxiways, crossover taxiways, bypass taxiways, perimeter taxiways, and holding pads. At congested airports, computer simulation can aid this analysis.

d. **Electronic, Visual, and Satellite Aids to Navigation** – Aids to navigation provide pilots with information to assist them in locating the airport and provide horizontal and/or vertical guidance during landing. Navigational aids also permit access to the airport during poor weather conditions. The need for new or additional navigational aids is a function of the fleet mix, the percentage of time that poor weather conditions are present, and the cost to users of not being able to use the airport when it is not accessible. Important navigational aids include instrument landing systems (ILS), approach lighting systems (ALS), Precision Approach Path Indicators (PAPI) or other visual approach slope indicators, and global positioning systems (GPS), such as the Wide Area Augmentation System (WAAS). Airport users can assist planners in identifying the need for navigational aids and the development of WAAS approaches. The installation of new navigational aids may require airspace coordination.

e. Air traffic control facilities include air surveillance radars, airport surface detection equipment, remote transmitters and receivers, wind shear detectors, weather observing

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equipment, and others. The general siting of future air traffic control facilities should take place during the master plan process so that adequate space is reserved for them and their critical areas are protected from development that would interfere with their operation.

f. **Airspace Requirements** – For complex master plans, particularly for a commercial service airport located near another commercial service airport, determining airspace requirements may require a detailed investigation, often using computer simulations. Such efforts need to be carefully coordinated with FAA air traffic representatives so as to reach agreement regarding key modeling assumptions. In addition, if the airfield capacity analyses call for new runways or major airfield reconfigurations, significant airspace changes or redesign may be required and FAA air traffic representatives should participate in the discussions.

In most master plan studies, however, the focus will be on reviewing the airport's existing airspace classifications and determining if growth at the study airport or at neighboring airports could require an upgrade to a higher airspace classification.

At non-towered airports, the master plan should determine if the growth in aircraft operations will exceed threshold values for the establishment of an airport traffic control tower. For towered airports, line of sight investigations may reveal that the airport traffic control tower should be relocated. See FAA Order 6480.4, *Airport Traffic Control Tower Siting Criteria*, for help in making such a determination.

Planners should identify penetrations of imaginary surfaces (as defined in 14 CFR Part 77, *Objects Affecting Navigable Airspace)* to determine their disposition. Obstacle clearance surfaces associated with *United States Standard for Terminal Instrument Procedures (TERPS)*, and obstacle clearance requirements found in FAA AC 150/5300-13, *Airport Design*, should be evaluated as appropriate. In some cases, the TERPS surface may be the controlling airspace surface.

With the ongoing implementation of NextGen technologies and flight procedures including new approaches using Wide Area Augmentation Systems (WAAS), Localizer Performance with Vertical Guidance (LPV), and area navigation (RNAV) and Required Navigation Performance (RNP), the master plan should evaluate existing and potential future approach capabilities and include airspace obstruction analysis to ensure appropriate planning for existing and future approach procedures.

806. COMMERCIAL SERVICE PASSENGER TERMINAL COMPLEX

a. The commercial service passenger terminal complex extends from the aircraft parking positions on the airside interface to the vehicle curbside on the landside interface. The role of an airport in the national, state and regional air transportation systems will influence passenger terminal facility requirements. A major connecting hub, for example, will need terminals that are functionally different from those at an origin and destination airport. Similarly, airports serving major tourist destinations or business centers may have special needs.

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The scope of analysis will be based on a number of factors, including but not limited to, the size and type of airport, available land, state of existing facilities, activity levels (passengers and aircraft operations), demographics of the passengers served, airport goals and objectives, and funding considerations. Planners should also consider the level of detail needed for the master plan. It may be appropriate to provide only the general location and footprint of a future terminal complex in the master plan, and complete a more extensive terminal requirements analysis in a separate study, especially if existing facilities will not accommodate future demand or industry requirements.

1) ***Airside Requirements*** –

a) Planners should identify the number and type of aircraft gates and parking positions that will be needed to accommodate future activity. The mix of aircraft expected to operate at the airport during the design hour will determine the linear feet of apron frontage and the gate dimensions. The location of aircraft parking positions relative to air traffic movement areas should be considered to avoid or limit the effects of aircraft pushbacks on aircraft taxiing flows. Aircraft gate requirements should include consideration of the functionality of jet bridges to serve the current and forecast aircraft fleet mix.

b) The availability of and need for remain-overnight (RON) aircraft parking should be evaluated. RON aircraft parking may be provided at aircraft gates or in proximity to the passenger terminal building or in remote locations (remote hardstands).

c) For airports that experience cold winter weather, deicing facilities should be evaluated.

d) The parking and storage of ground service equipment should also be considered in determining apron frontage requirements. Planners should strive to separate ground vehicle movement areas from aircraft movement areas as much as possible to ensure safety.

e) Some airports operators are exploring the possibility of accommodating commercial space activities, including the possibility of either horizontal or vertical launch capabilities as well as reentry activities.

In such cases, it is important for the airport planning process to consider a broad range of associated issues, particularly in order to prevent or minimize any potential impacts to the safety, efficiency or utility of the airport, including (but not limited to) airside facilities. The FAA will address associated issues in future guidance and policy documents, addressing not only airport planning but also environmental, financial, safety and compliance issues.

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2) ***Passenger Terminal Building Requirements*** –

a) Within the terminal building, requirements are commonly expressed in terms of square footage for major functional elements, such as ticket counter/kiosk areas, security screening checkpoints, aircraft gates and holdroom/departure lounges, concessions, airline operations, baggage makeup, baggage claim, circulation, public space, restrooms, airport offices, and mechanical space. Airports that serve international flights also require facilities for customs and immigration. Planners should evaluate the special requirements for these facilities by referencing the latest guidance from U.S. Customs and Border Protection (CBP) and the Centers for Disease Control and Prevention (CDC).

b) Understanding the space requirements of these elements will assist planners in configuring the terminal complex. In master plans where terminal building expansion or reconfiguration may be recommended for the long term, it may be appropriate to provide only a general location and footprint of the future terminal building, rather than specific functional area requirements. Industry planning, design and level of service standards are often used to develop generalized gross terminal space requirements necessary to properly size the terminal footprint (refer to Section 806.c for relevant reference materials).

3) ***Landside Requirements*** –

a) The length of curbside area required is a function of the modal splits of originating and terminating passengers, pedestrian circulation, dwell time assumptions and occupancies for the vehicles at the curbside, and the assignment of different types of vehicles to the curbside. Airport sponsor policies regarding dwell time and other airport roadway management practices (including use of inner and outer and upper and lower level roadways and curbs for specific roadway users such as arriving and departing passengers, taxi/limousine, shared ride, hotel/parking/rental car shuttles, etc.) will influence curbside requirements. The availability of convenient, short-term parking within walking distance of the passenger terminal building, the availability of public transit, the extent of consolidation among the various door-to-door shuttles, and the use of cell-phone waiting areas or parking lots will reduce the amount of curbside area required.

b) To facilitate the flow of traffic in front of the terminal, the number of lanes should be assessed.

b. **Passenger Convenience and Access to Airport Facilities** – Section 131 of the FAA Modernization and Reform Act of 2012 (49 U.S.C. § 47101(g)(2)) requires airport master plans to consider passenger convenience, access to airport facilities, and ground access. In accordance with this provision, the following sections identify some of the considerations that an airport master plan may evaluate in order to improve the overall passenger experience – enhancing the passenger's sense of convenience and facilitating access to and from and through the airport complex. Section 810.i provides specific information on passenger convenience as it relates to ground access.

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1) ***Passenger Convenience*** – Key measures of passenger convenience focus on passengers being processed in an efficient amount of time and with minimal imposition. Passenger convenience also may be evaluated in terms of comfort. It will be perceived differently by every passenger at every phase of travel, and is a function of a passenger's demographic characteristics, place of residence, trip purpose, and travel habits. Passengers with mobility and sensory impairments, language barriers, elderly travelers, families traveling with small children, and nursing mothers traveling on business may face more hurdles when traveling, leading to negative perceptions about convenience.

Many aspects of the traveler's experience don't fall wholly within the direct control of the airport sponsor, and are influenced to a greater or lesser degree by airlines and other service providers at the airport. In 2009 and 2011, in response to a series of significant delays in which passengers were held on board aircraft for lengthy periods (and also in response to the high incidence of flight delays and other consumer problems), the U.S. Department of Transportation issued two final rules entitled Enhancing Airline Passenger Protections (74 FR 68983 and 76 FR 23109), which became effective on April 29, 2010, and August 23, 2011, respectively. These two rules put in place a number of consumer protection measures to "improve the air travel environment for consumers" (see Federal Register Notice dated April 25, 2011, announcing the Final Rule (https://federalregister.gov/a/E9-30615 and https://www.federalregister.gov/articles/2011/04/25/2011-9736/enhancing-airline-passenger-protections).

1) Even with these new consumer protection rules for air travelers, within the terminal complex, passengers often continue to experience long wait times or delays due to problems with facilities or staffing at key points in their journey (such as during the check-in and/or baggage drop-off process, at TSA or CBP checkpoints, at baggage claim, and at rental car facilities) or other inconveniences due to facility design (such as long unassisted walking distances, which often contribute to passenger complaints regarding their travel experience).

Airports do, however, have a lot of influence over other aspects of the passenger experience including the overall balance between airside, landside and terminal facilities; airport signage and messaging systems; curbside management; various aspects of the airport concessions program; and decision making related to other facilities and amenities within the airport's public areas.

a) As appropriate to the level of detail included in the overall terminal plan, planners should consider the basic types of services provided to travelers at various points within the terminal building, as well as the degree of congestion, waiting and processing times during each phase of the journey from airport curb to aircraft gate. Shorter wait times and walking distances, intuitive way finding, accessible and reliable flight information displays, and sufficient and accessible restrooms, and reasonable distribution of space for a variety of concessions, among other

considerations, may enhance the passengers' overall travel experience and contribute to a sense of convenience.

b) Providing amenities to make passenger wait-time more productive, comfortable or more entertaining may improve the passenger experience and perceptions of convenience. Amenities should be shown as appropriate to a level of detail to determine rough blocked-out areas for these functions. Examples include comfortable holdroom seating, dedicated work areas, accessible power connections, Wi-Fi, full-service restaurants, children's play areas, facilities for nursing mothers (such as lounges or non-bathroom spaces)[1], family restrooms, gym/fitness centers with shower facilities, library/reading rooms, public art and museum exhibits or displays, and entertainment options. The types of amenities offered by an airport in or in close proximity to their passenger terminal complex will vary greatly depending on the airport's passenger characteristics, airline composition, facility layout, and other factors.

c) Planners should also consider an appropriate balance of pre-security screening facilities and amenities for airport employees, airport visitors, and meeters and greeters. At a minimum, restroom requirements and at least limited concessions (such as a coffee kiosk and news and gift store) should be evaluated. The type and quantity of these pre-security screening amenities will depend on the characteristics of the airport and the local market.

d) Many publications describe common metrics and accepted standards for evaluating the passenger experience at an airport. Some of these publications are listed in Appendix B of this AC. Planners should consult the appropriate publications depending on the size and scope of the project. Airport surveys or comment kiosks can also be useful in determining the public's perception of the functionality and convenience of the terminal facility. Airport customer service representatives, airport passengers, airport duty managers and airline station managers, Travelers Aid agencies and the United Service Organization (USO) also provide valuable insight to improvements needed in terminal facilities.

2) ***Access to Airport Facilities*** – Access to airport facilities refers to the ease with which passengers can navigate and travel through the airport complex. Passengers should be able to access the airport's landside facilities and terminal building, and travel between each, in a seamless flow.

a) Planners should evaluate parking and curbside capacity and designated areas for travelers waiting for their next mode of transportation. Access to shuttles, buses, trains, and automated people movers (APM) where warranted should be evaluated, as well as the frequency of service relative to aircraft arrival and departure times.

[1] In addition to facilities for passengers, in accordance with Section 4207 of the Affordable Care Act (the Health Care Reform Act), many airports and airport employers are required to provide reasonable break time and a private, non-bathroom place for nursing mothers to express breast milk during the workday. These requirements became effective on March 23, 2010.

b) Inside the terminal building, planners should evaluate passenger pathways, vertical transitions, clarity of signage and wayfinding, space and queue lengths at check-in and security, space and wait times at baggage claim, access to airport information and airline schedules, and convenience of restrooms, concessions, and departure lounges.

c) Planners at international airports should evaluate CBP facilities where immigration and infectious diseases are addressed. This evaluation should include an assessment of passenger processing times to ensure that the facilities and associated staffing levels provide acceptable levels of service throughout the day. Coordination with CBP is important during the planning study and on an on-going basis to ensure that the facilities and staffing continue to meet the needs of the traveling public.

d) Access to airport facilities for people with disabilities, impairments, and limited mobility can be particularly challenging. Planners should evaluate whether airport facilities meet the Americans with Disabilities Act (ADA) and other building code requirements. Existing facilities that are in noncompliance with these requirements should be remedied as required by law. New facilities should be planned and designed to improve accessibility and convenience for all passengers while meeting the special needs of disabled passengers. The master plan should identify requirements for service animal relief areas within the terminal complex. AC 150/5360-14, Access to Airports by Individuals will Disabilities, should be consulted for additional guidance.

e) Planners should be cognizant of the specific needs of passengers using wheelchairs or other types of mobility assistance, and those with specific medical requirements. Planners should identify any specific terminal layout requirements, amenities (including concessions, information booths, medical clinics, and restroom facilities) and staffing considerations necessary to best accommodate these passengers and improve their travel experience.

c. **Methodologies** – Information on methodologies that can be used to determine passenger terminal facility requirements is provided in several sources, including:

1) FAA Advisory Circulars 150/5360-13, *Planning and Design Guidelines for Airport Terminal Facilities,* and 150/5360-9, *Planning and Design of Airport Terminal Facilities at Non-Hub Locations*

2) *Airport Development Reference Manual*, published by the International Air Transport Association

3) *ACRP Report 25, Airport Passenger Terminal Planning and Design, Volume 1: Guidebook* (http://www.trb.org/Publications/Blurbs/163252.aspx)

ACRP Report 25, Airport Passenger Terminal Planning and Design, Volume 2: Spreadsheet Models and User's Guide (http://www.trb.org/Publications/Blurbs/163171.aspx)

4) *Recommended Security Guidelines for Airport Planning, Design and Construction*, published by the Transportation Security Administration (http://www.tsa.gov/sites/default/files/assets/pdf/airport_security_design_guidelines.pdf)

5) Proprietary computer simulation modeling tools can also be used to evaluate passenger and baggage flows through airport terminals.

Additional references are provided in Appendix B.

807. GENERAL AVIATION REQUIREMENTS

a. General aviation (GA) encompasses a variety of users and activities, such as corporate flight departments, cargo operators, recreational flyers, business commuters, flight training, agricultural applications, law enforcement, emergency medical services, firefighting, and fixed base operators (FBOs). As a result of the variety of GA aircraft activity, GA needs include aircraft storage facilities, transient parking aprons, terminal facilities, automobile parking areas, and vehicle access from adjacent roads. Planners should consult appropriate publications for specific information regarding GA airport facilities planning, such as FAA AC 150/5300-13, *Airport Design* and applicable ACRP reports.

1) ***Aircraft Storage Facilities*** – Physical requirements of GA users vary from tie-down aprons to large conventional hangars with major maintenance services and transient aircraft aprons. Conventional hangars and T-hangars protect aircraft from the weather and provide security against vandalism or theft. Planners should evaluate the demand for outdoor aircraft parking versus covered aircraft parking and storage facilities in t-hangars or enclosed hangars. The demand for enclosed hangars may be higher in areas of the country that experience extreme winter and summer weather conditions.

2) ***Transient Aircraft Parking Aprons*** – Temporary parking for visiting aircraft may be provided on a transient apron adjacent to the terminal building, or on aprons managed or leased by an FBO. Parking apron requirements should be based on the regular use needs of the airport.

3) ***Terminal Facilities*** – Terminal buildings at GA airports range from very modest structures with little more than a waiting room and a telephone to multistory buildings with extensive amenities, such as pilot briefing rooms and lounges, restaurants, gift shops, conference and training rooms, and rental car counters. At GA airports, the terminal building may also house administrative offices. At commercial service airports, general aviation terminal facilities are often provided by one or more FBOs. In such cases, the facilities are provided principally for customers of the FBO and access for the general public is limited.

b. Planners should analyze existing and forecast activity, including based aircraft activity and transient aircraft operations, and the types of users when assessing future facility requirements at GA airports. The role of the GA airport in the region as well as the also

may influence facility requirements. More information on evaluating airports as part of a system is provided in FAA AC 150/5070-7, *The Airport System Planning Process*.

c. Planners should be aware of factors that may influence existing demand for GA facilities. For example, if facilities are in disrepair compared with facilities at nearby airports with overlapping service areas, demand may shift from the study airport to the nearby airport. The airport sponsor's pricing policies may also affect demand. A useful barometer of facility needs, particularly short-term needs, is the existence of waiting lists for hangars, T-hangars, and aircraft tiedown positions.

d. Planners should carefully evaluate the existing and future GA aircraft fleet mix. Business jets have different facility and service requirements than single-engine aircraft.

e. Additionally, in accordance with (49 U.S.C. § 47101(g)(2)), passenger convenience considerations for GA facilities at commercial service airports and at GA airports include automobile parking, rental car facilities, aircraft parking (transient and long term), signage, comfort and cleanliness of FBO facilities, services such as aircraft maintenance and catering, and dedicated work areas for pilots.

808. AIR CARGO REQUIREMENTS

a. For commercial service airports and larger GA airports, air cargo activity is generated by a diverse collection of companies with differing business strategies and market roles, including the following:

1) ***Integrated Carriers***, which transport freight from door-to-door using their own fleet of trucks and aircraft.

2) ***Freight Forwarders***, which act as brokers that link shippers with freight carriers; they coordinate the shipment of freight, but do not transport it.

3) ***All-Cargo Operators***, which sell space to freight forwarders or individual companies and ship the air cargo on their aircraft.

4) ***Combination Carriers***, which carry both passengers and freight on a single aircraft, typically with a reconfigured cabin.

5) ***Belly Freight Carriers***, which carry cargo in the baggage compartment or belly of a passenger aircraft.

Airport planners should assess the capacity of existing cargo processing facilities and determine future requirements for buildings, aircraft parking aprons, and ground access facilities. Each type of cargo operation has somewhat different site requirements, so a range of spaces will need to be provided for cargo development. In planning for future air cargo facilities, planners should consider: (1) the existing air cargo market and demand at the airport including existing fleet mix and activity (operations and tonnage) and facilities (on- and off-airport office, warehousing and sorting facilities, truck/loading dock areas, airside apron and aircraft parking areas, and employee parking), (2) the type and number of cargo companies expected to expand or initiate

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operations; (3) annual air cargo operations projected for all cargo operators; (4) the number of existing apron parking spaces; (5) projected growth in annual enplaned cargo tonnage; (6) the availability of ground access for the heavy commercial trucks associated with cargo activity; (7) the availability of ground access and parking for employees in air cargo facilities, and (8) any security needs and requirements. Planners should consider providing a means of separating cargo trucks from other airport traffic for security purposes.

b. At most GA airports, air cargo facilities are included in the broad category of general aviation facilities. Air-cargo-related activities are accommodated in the hangar, apron, and ground access facilities of the general aviation tenants and operators. In such cases, an independent analysis of air cargo needs is unnecessary.

809. SUPPORT FACILITIES

a. Support facilities at an airport encompass a broad range of functions that ensure the smooth, efficient, and safe operation of the airport. As applicable, the future requirements for the following support facilities should be assessed:

1) ***Aircraft Rescue and Firefighting*** – For airports that require 14 CFR Part 139 certification, planners should review the aircraft operations forecast to determine if the airport's Aircraft Rescue and Firefighting (ARFF) index will change during the planning period. If 14 CFR Part 139 certification is not currently provided at the study airport, but will be required during the planning period, the applicable ARFF building and equipment requirements should be defined in the master plan. See 14 CFR Part 139, *Certification of Airports*, particularly sections 139.315 through 139.319, for ARFF index definitions, and FAA AC 150/5210-15, *Aircraft Rescue and Firefighting Station Building Design*, for standards and guidance in planning an ARFF station. Planners should also consider if multiple ARFF stations will be required to meet response time requirements as defined in 14 CFR Part 139. For airports that do not require 14 CFR Part 139 certification, planners should identify any existing mutual aid agreements with local authorities for emergency response services, or the lack thereof.

2) ***Airport Maintenance*** – Airports provide a wide variety of services to ensure a a safe, efficient, and reliable environment for airport tenants and users. The facilities needed to support these services include administrative offices, buildings for storage and maintenance of airport equipment, shop space, and buildings for supply storage. Northern airports need equipment for snow removal operations (refer to FAA AC 150/5220-18A, *Buildings for Storage and Maintenance of Airport Snow and Ice Control Equipment and Materials)*.

3) ***Fuel Storage*** – FBOs often provide fuel storage and supply at general aviation airports. At some airports, unattended self-service facilities may be provided when activity does not warrant full-time attendants. At commercial service airports, fuel storage facilities provide jet fuel if the supply through pipelines or tanker trucks is interrupted. To support general aviation, planners should address the types of approved aviation fuel needed to meet current and future public demand.

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4) ***Aircraft Maintenance*** – For the general aviation community, aircraft maintenance is typically provided by an FBO. The types of services provided include, but are not limited to, airframe and power plant repair by an FAA-certified repair station. The facilities required to sustain these services include: (1) an aircraft maintenance hangar with sufficient work space for any aircraft upon which maintenance is being performed; (2) suitable storage and shop space for equipment and tools; (3) office space, customer lounge, restrooms, and telephone; (4) apron area with pavement type and strength adequate to support the expected aircraft fleet; (5) adequate automobile parking and ground access; and (6) proximity to the engine run-up area to limit taxiing times and fuel costs. At larger airports, a tenant airline may have established a maintenance base for the periodic inspection and maintenance of its aircraft. To determine the space requirements for such a maintenance facility, planners should ask airline representatives about the types of aircraft they plan to service at the airport and their expected facility needs.

5) ***Deicing*** – Airports in locations with winter weather conditions that can cause accumulation of frost, snow, slush, or ice on aircraft surfaces must have aircraft deicing facilities. These airports should consider deicing pads to maintain departure flow rates and avoid unacceptable aircraft delays. Any new aircraft deicing facility must have runoff mitigating structures to collect deicing fluid runoff, and must comply with U.S. Environmental Protection Agency (EPA) requirements. See FAA AC 150/5300-14B, *Design of Aircraft Deicing Facilities,* for standards and guidance in planning deicing facilities.

Guidance for assessing the future needs of aviation support facilities is provided in the referenced ACs. In many cases, planners may rely on interviews with airport management and airport tenants and users to better understand existing and future facility requirements..

810. GROUND ACCESS, CIRCULATION, AND PARKING REQUIREMENTS

One of the key elements in choosing a mode of travel to the airport is the total trip time between the passenger's point of origin and their destination. Travelers are particularly sensitive to the duration of the ground access portion of an air travel trip. The regional roadway network, on-airport circulation roadways, and parking facilities are the principal components of the ground access system. The capacity and reliability of this system will determine the levels of service and convenience provided to air travelers during the ground access segment of their trips.

a. **Regional Transportation Network and Public Transportation** – Coordination with local transportation planning agencies during the review of existing conditions should produce enough information to enable an assessment of ground access capability, and to confirm whether or not the existing and planned networks can accommodate projected aviation demand.

At airports where the capacity of the airport ground access or regional roadway system may be a concern, discussions between the airport and local transportation planning agencies may help in identifying roadway capacity needs and potential roadway improvements or management techniques to improve roadway level of service and reduce congestion. At busy and complex airports, planners can benefit from the use of a variety

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of analytical computer models and simulation models to evaluate existing conditions, analyze future scenarios, and consider alternative strategies to manage future airport roadway and curbside demand.

b. Larger commercial-service airports may implement strategies or policies to reduce the number of single-occupant private vehicle trips and to encourage greater use of high-occupancy vehicles. In major urban areas, the Metropolitan Planning Organization (MPO) or other regional planning agency may be able to provide assistance to airport planners. Where roadway congestion is determined to be a constraint, a separate ground access study may be required to identify near-term and long-term improvements or traffic management techniques to manage demand.

Public transportation has the potential to reduce roadway congestion and the amount of land required for automobile parking while reducing total air pollutant emissions and other environmental impacts. Public transportation services, including scheduled bus and passenger rail, or other alternate modes of transportation, are often examined as part of an airport master plan.

Airport plans (for new roadways, transit/rail corridors, and other transportation improvements) should be integrated into regional and state transportation plans to ensure that these long-range plans reflect future airport-related transportation improvements.

c. **On-Airport Circulation Roadways** – This roadway access system is shared by a wide range of users having different trip purposes, which include:

1) ***Originating and terminating airline travelers*** who most often arrive at the airport in a private vehicle, but may also use a taxicab, limousine, courtesy bus, mass transit, charter bus, door-to-door shuttle, rental car, or bicycle.

2) ***Employees*** who travel to and from the airport each day using private vehicles, public transportation, shuttles from remote parking facilities, or bicycles.

3) ***Delivery vehicles*** that supply the goods and materials consumed or purchased at the airport.

4) ***Other vehicles*** that may require access to air cargo facilities, general aviation facilities, support facilities, and other activity centers.

d. Each user group has a different pattern of arrival and departure times for its airport trips. Analytical methods and computer models may be used to evaluate roadway capacities and the levels of service they provide. Such analyses should also identify potential capacity increases in the form of additional lanes or operational modifications. Security provisions for vehicle screening may be required. Other users of the roadway facilities that should be evaluated may include:

1) ***Taxicab/Limousine/Courtesy Shuttle Staging Areas*** – Locations where vehicles can be parked and dispatched as needed to pick up passengers at terminal curbsides. A

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staging area is a critical resource at busy airports where terminal curbside space is scarce.

2) ***Rental Car Facilities*** – At smaller airports, the rental car ready and return parking spaces are often located in lots adjacent to the terminal building or in the public parking garage. At larger airports, ready and return spaces may be provided in a consolidated rental car facility or at remote locations that are accessed via courtesy shuttles or buses. Rental car operations also require space for cleaning, fueling, maintaining, and storing vehicles.

3) ***Courtesy Shuttles and Buses*** – Courtesy buses and other types of shuttles serving on- and off-airport rental car facilities, hotels, and parking facilities are major users of on-airport roadways. At the larger commercial service airports, courtesy vehicles are often allocated dedicated curbside space to pick up and drop off passengers.

4) ***Charter Bus Operations*** – Airports that are gateways to major tourist destinations may accommodate high volumes of charter bus operations. Cruise ships, for example, may impose extraordinary passenger surges on airport facilities when they use charter buses to transfer passengers between the airport terminal and the marine port.

e. **Public Parking Facilities** – Public parking facilities at general aviation airports are generally small surface lots located next to the terminal building, while parking facilities at commercial service airports range from surface lots next to the passenger terminal to a combination of structured parking facilities and surface lots for short-term hourly, daily, and long-term parkers. Close-in parking often includes separate areas for hourly and daily parking. At larger airports, remote parking facilities with shuttle bus service may need to be considered.

f. **Cell Phone Waiting Lots –** At many airports, cell phone lots for meeters and greeters of arriving passengers reduce the amount of recirculating traffic on airport roadways. These lots may include amenities such as flight information displays, restrooms and concessions depending on the volume of traffic to support such facilities.

g. **Employee Parking** – At small commercial service airports, parking for employees whose worksite is inside the commercial passenger terminal building can usually be accommodated in small surface lots near the terminal. At larger airports, however, public parking in surface lots or garages is often given higher priority over terminal area employee parking. In these cases, planners should evaluate existing and future employee parking requirements to determine the the need for terminal area employee parking and remote employee parking, and associated employee parking facility shuttle bus service requirements. Employee parking and ground transportation surveys provide useful data to aid in establishing future facility requirements.

h. **Bicycle Lanes and Racks/Storage** – Planners should evaluate the extent of bicycle use by passengers and employees within the airport complex to determine requirements for

bicycle lanes and bicycle storage (racks and storage lockers). Consider co-locating bicycle storage within transit and parking facilities.

i. **Ground Access Passenger Convenience Considerations** – Per 49 U.S.C. § 47101(g)(2), planners should examine the various components of the airport's ground access system (including roadways, curbside, ground transportation services, signage, and parking facilities) in terms of passenger convenience. Passengers that need to travel to and from an airport must select a mode of transportation for that travel, taking into account mode efficiency and comfort, cost of trip, duration of trip, vehicular traffic, complexity of routing, and potential impacts of road closures and accidents.

On the airport, signage should be simple, concise, and uniform to aid in wayfinding. At airports with multiple terminal facilities, roadway and curbside signage identifying airline locations is critical. Poor signage can reduce the level of service provided to airport patrons and result in increased recirculating traffic (refer to FAA AC 150/5360-12E, *Airport Signing and Graphics)*. Passengers traveling by automobile will be most concerned with how easy it is to find parking, parking options and costs, signage and wayfinding to/from rental car facilities if renting a vehicle, and signage denoting airline terminal assignments. Variable or dynamic message signs may provide real-time information to passengers in the event of roadway closures, detours, or changes in airline terminal assignments or other facility locations that are not yet captured by the airport's signage system.

Good connectivity between an airport terminal and the various modes of transportation is essential. Public transportation options should be examined for frequency, travel time, cost, and number of segments (additional time required for connections), as well as type of intermodal facilities available on the airport to provide seamless and convenient connections for passengers on the next leg of their journeys. Walking distances to parking garages, frequency of shuttles to rental car facilities and nearby hotels on and off airport, and amount of curbside for vehicle staging should be examined for passengers not using public transportation.

811. UTILITIES

The master plan should address existing and future utility needs, such as for water, sanitary sewer, drainage and deicing, industrial waste, communications, power supply, and back-up power and water in case of emergencies. Existing systems should be evaluated and their capacity verified at the airport boundary. Historical ratios of utility demand to the level of enplanements or aircraft operations can form the basis for projecting future demand. Since an airport can be a large consumer of utility services, planners should discuss their projections with local utility providers to ensure that the airport's needs are included in their long-term service plans. Planners should also consult local building codes to ensure any specific local requirements are identified during the planning phase.

812. OTHER REQUIREMENTS

Many airports have significant acreage devoted to non-aeronautical uses, such as industrial parks, recreational uses, agricultural or grazing leases, or retail businesses. Some uses are considered temporary, to remain only until a higher aviation use materializes, while others are expected to remain as surplus to anticipated aviation needs. In either case, the revenue from these activities provides supplemental revenue to the airport and improve the airport's overall financial position. The planner should review the infrastructure needs of such activities and identify improvements that preserve the revenue-generating performance of a valuable asset.

813. DOCUMENTATION GUIDELINES

a. A stand-alone chapter of the technical report should describe the analyses and techniques used to determine future facility requirements. A summary at the beginning or end of the chapter and in the report's executive summary should highlight findings for key components.

b. Planners should use appendices to improve the readability and organizational flow of the documentation. However, they should avoid making the appendices a depository for unnecessary information, which can result in lengthy reports that may confuse and discourage the reader.

c. It is not necessary for the chapter documentation to mirror the outline of major sections provided in this chapter of the AC. However, it should follow the structure of the chapter of the technical report that describes existing conditions.

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Chapter 9 Alternatives Development and Evaluation

901. GENERAL

a. This chapter brings together many different elements of the planning process to identify and evaluate alternatives for meeting the needs of airport users as well as the strategic vision of the airport sponsor. Airports have a wide variety of development options, so an organized approach to identifying and evaluating alternative development options is essential for effective planning. The key elements of this process are:

1) Identification of alternative ways to address previously identified facility requirements.

2) Evaluation of the alternatives, individually and collectively, so that planners gain a thorough understanding of the strengths, weaknesses, and other implications of each.

3) Selection of the recommended alternative.

Planners should carefully organize the analysis because it is easy to consider alternatives that do not meet the airport's needs, or fail to consider certain long-term development options, particularly if one highly visible issue seems to overshadow other planning elements. Both of those outcomes can be avoided by the careful review of the scope of work, and by verifying that the facility requirements (including timing) are complete; that other considerations, such as the sponsor's strategic development objectives, unusual site or environmental consideration and other factors are documented and understood; and that there has been sufficient stakeholder participation.

b. Planners should also review the scope of work to ensure that the alternatives process conforms to the overall study design. In simple master plans, alternatives development may be limited. In these instances, facility improvements are simply an extension of existing land use patterns and can be best addressed in the Airport Layout Plan.

c. Planners should meet the airport's development needs in order to improve the airport as a system, while remaining responsive to environmental, fiscal, and other objectives. To do so, the planner must balance competing needs among the airport's various functional elements. Although the process varies by airport, planners typically consider the airside first; terminal, general aviation, and cargo facilities next; and then airport access. Since a master plan covers a 20-year time frame, planners should recognize that the recommended alternative should be functional through various stages of the plan. For example, it would not be a good idea to develop a new location for general aviation operations early on if the airside improvements needed to support it would not be provided until a later phase. A 20-year plan should also have the flexibility to meet unforeseen future conditions.

In some cases where it is appropriate to identify major development alternatives, such as a new runway, that meet demand beyond a 20-year time frame. For example, if an airport is experiencing urban encroachment that would lead to land use incompatibility,

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planners should assess alternatives that would help protect aviation assets from that encroachment, or to plan for long-term land acquisition. However, planning beyond the 20-year period should be general in nature and in much less detail than that for the short- or even mid-term development. For example, if planning for a future runway, the master plan might only indicate the general location and potential length of the runway. The alternatives analysis would only consider key evaluation criteria and would be at a low level of detail.

d. Effective facility planning must consider environmental issues in the alternatives identification, evaluation, and selection effort. The early consideration of the potential environmental impacts of alternatives can avoid later problems. Some master planning efforts will produce short-term recommendations that will require an Environmental Assessment or Environmental Impact Statement. In these situations, the master plan must provide a good technical foundation for the subsequent environmental process. In some complex situations, it may be helpful to include an environmental consultant or FAA Airports Environmental Specialist as an advisor to the master plan. However, the planner should carefully review the master plan scope of work to avoid undertaking tasks better suited for the follow-on environmental analysis, such as wetland delineation or cultural resources surveys. To better understand how a master plan alternatives analysis fits within the overall development process, planners should concurrently review the following FAA guidance:

1) FAA Order 5050.4, FAA Airports guidance for complying with NEPA,

2) FAA Order 1050.1, *Environmental Impacts: Policies and Procedures*

3) AC 150/5300-13, *Airport Design*

4) Chapter 5 of this AC, *Consideration of Environmental Factors in Airport Master Planning*

Master plans that address controversial undertakings, such as capacity projects at larger airports, should pay particular attention to environmental factors and the National Environmental Policy Act (NEPA) process during alternatives identification, analysis, and selection. The plan's environmental evaluation is intended to support the NEPA process. The planning and environmental review will be less likely to experience delays if the master plan supports the subsequent NEPA analysis.

Although master planning is not part of the NEPA process, the master plan alternatives development and evaluation can provide an important component of an efficient NEPA process. In complex cases, the careful scope of work preparation (with assistance from an environmental consultant or FAA Airports Environmental Specialist) can ensure that the master plan provides information useful to subsequent environmental analyses under NEPA. Items of particular interest during planning include the types of reasonable alternatives that the sponsor and FAA can implement. The analysis of these alternatives must be consistent and well documented.

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e. The alternatives effort should also consider fiscal issues. Planners must be aware of the practical fiscal limitations imposed on the airport by the availability of grant funds, passenger facility charges (PFCs), user fees and other sources of development dollars and their development options should reflect the fiscal capabilities of the airport. Cost should not be a factor in rejecting an alternative unless the cost of the alternative makes the alternative infeasible. A plan that is not realistic in terms of what can be funded will not provide much benefit to the sponsor or airport users. Note, however, that under NEPA, cost alone is not necessarily a valid reason for rejecting an alternative.

f. The alternatives identification, evaluation, and selection process should be the most collaborative portion of the master plan study as part of an effective public involvement program. The foundation for a successful effort in the alternatives analysis process is careful consideration of this task in the pre-planning activities. The level of detail to be undertaken in this task will greatly affect the cost of the master plan study.

902. ALTERNATIVES ANALYSIS PROCESS IN AIRPORT MASTER PLANNING

a. A general process of identifying, analyzing, and recommending alternatives is illustrated in Figure 9-1. The steps shown are an example of a comprehensive process that can be used on large and complex projects. For many airport planning projects, some of the steps may not be applicable. The process should be adapted to the needs of the study airport and the level of detail may vary considerably from study to study. The alternatives analysis process may be adapted in several ways, but variations should be clearly described in the study's scope of work; they may include changes such as:

1) What airport elements are included in the process

2) How the elements are ranked in the planning hierarchy

3) What type and level of analysis will be used to differentiate among the alternatives

b. Where a particular functional element does not exist, it can be eliminated from the alternatives analysis process; for example, planners need not consider an airline passenger terminal at general aviation airports. In addition, if there are no facility needs associated with a functional element, it is not appropriate to consider alternatives for that element. Thus, it is possible, if there are no facility improvements for primary elements and those for secondary elements are simply extensions of existing land use patterns, that the alternatives analysis process can be materially reduced or even skipped altogether.

c. The alternatives analysis process planning hierarchy that addresses the primary analysis first examines recommended alternatives for those elements that require large land areas and must be considered as a functional whole. For most airports, this will include the airside. For larger airports, airline passenger terminal and ground access elements may be included. For smaller airports, general aviation facilities may be included in the primary analysis.

The secondary analysis addresses elements that have greater planning flexibility, however, not all airport planning will have secondary analysis. For example, the support

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facilities at some airports will include an Aircraft Rescue and Fire Fighting (ARFF) building. While an ARFF building will have specific size, location, and functional requirements, these requirements are significantly easier to satisfy than those for a new runway or passenger terminal.

The order of the elements in the planning hierarchy may vary by airport. For example, at an airport with particularly complex airside, airline passenger terminal, and cargo situations, but a very simple ground access element, the alternatives analysis process would be adapted to make the ground access element a secondary analysis element while making the cargo element a primary analysis element.

d. Planners may also adapt the analysis to the unique circumstances of the study airport. For example, an airport may have ample airfield capacity, but significant terminal and ground access congestion. In such a case, planners might conduct a relatively simple airfield capacity analysis, or none at all, while the airline passenger terminal and ground access elements would get a more intensive analysis, including computer simulation.

e. The alternatives analysis process is an iterative process, intended to be flexible enough to permit creative thinking about the future of the airport, but sufficiently structured to ensure consideration of all pertinent factors. The planner, in following this process, should focus on issues that shape how the airport will function as a system, as well as on narrower technical analyses.

f. The alternatives analysis process should incorporate the public involvement program. Although the appropriate level of public involvement will vary, a meaningful involvement program is important and will provide a number of important benefits.

g. As shown in Figure 9-1, the alternatives analysis process should start with a broad group of alternatives for the primary elements and progressively screen them to produce reasonable alternatives that meet the planning need. The sponsor may identify a recommended single alternative.

1) ***Determine Primary and Secondary Elements (Step 1)*** – Determine which functional elements (airside, airline passenger terminal complex, cargo, general aviation, ground access, and support) should be considered in the primary analysis and which ones can be in the secondary analysis. Primary elements require large, contiguous land areas. Secondary elements have greater planning flexibility, can often be subdivided, and fill-in around the primary elements.

2) ***Identify Preliminary Primary Element Alternatives (Step 2)*** – After the principal elements for primary and secondary analysis are identified, select preliminary alternatives for the primary elements.

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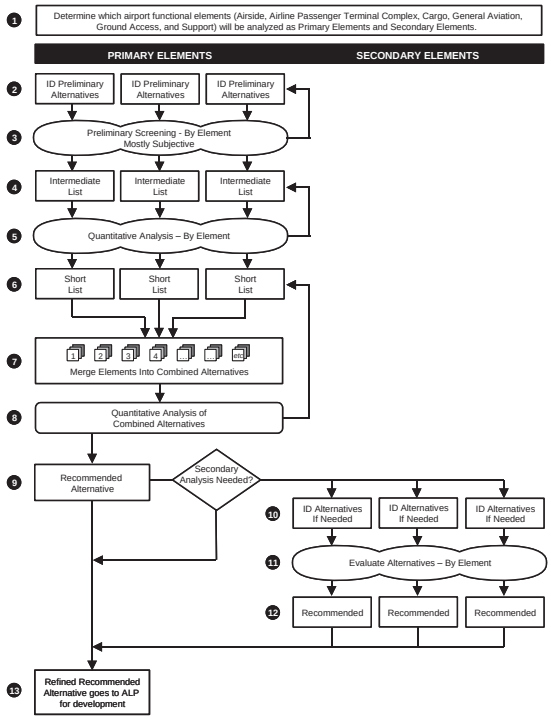
Figure 9-1: Alternatives Analysis Process Example



3) ***Screen Alternatives for Intermediate List of Primary Element Alternatives (Steps 3 and 4)*** – Screen the preliminary alternatives, using a mostly subjective, qualitative analysis, to make an intermediate list of alternatives. This screening will eliminate some alternatives for each of the primary elements, and may introduce others. Any subsequent environmental analysis will be aided by clear documentation of this screening, focusing on why alternatives were eliminated.

4) ***Quantitative Analysis for Short List of Primary Element Alternatives (Steps 5 and 6)*** – As appropriate, subject the selected alternatives to a more rigorous, and often quantitative, analysis to get a short list of alternatives by element. Again, clear documentation of this analysis will help in any subsequent environmental analysis.

5) ***Combine and Analyze Primary Element Alternatives (Steps 7 and 8)*** – Identify combined alternatives, consisting of the logical matching of the individual primary element alternatives, and subject them to a further analysis, based on previous work.

6) ***Select Preferred Primary Element Alternative (Step 9)*** – Select and document the recommended alternative for the primary elements. Note that subsequent environmental processing will materially benefit from clear documentation of this selection with a focus on why alternatives were eliminated.

7) ***Identify Alternatives for the Secondary Elements (Step 10)*** – Identify alternatives or options for the secondary elements. In some cases, the simplicity of the situation may eliminate the need for some or all of the secondary component alternatives.

8) ***Evaluate and Select Recommended Alternatives for Secondary Elements (Steps 11 and 12)*** – As appropriate, evaluate secondary elements alternatives, typically using a mix of qualitative and quantitative analysis, and select and document reasonable alternatives or options. Note that subsequent environmental processing will materially benefit from clear documentation of this analysis. It provides a focus on why some alternatives were eliminated and why reasonable alternatives were retained for consideration and environmental analyses.

9) ***Prepare Refined Recommended Alternative (Step 13)*** – The final step in the process is the combination of the recommended alternatives for the primary and secondary elements.

h. During the alternatives analysis process, planners will get new information and input that will help refine the alternatives or result in the introduction of new alternatives. Therefore, planners should view the alternatives analysis process as an iterative one.

903. IDENTIFICATION OF ALTERNATIVES

a. The alternatives identification (steps 2 and 10 in Figure 9-1) should consider only those alternatives meeting the sponsor's planning need and that the FAA or the airport sponsor will be able to implement. Planners should examine each identified alternative's technical feasibility, economic and fiscal soundness, and aeronautical utility (i.e., build and operated safely). Alternatives not meeting those criteria should be dismissed, while

providing reasons for their respective dismissals. The master plan should include reasons why planners rejected any alternative that would avoid environmentally sensitive resources or that would require extensive mitigation. This planning information is critically important to efficient project development. It is also critical to streamlining the subsequent NEPA process, since that process must consider the above master plan alternatives and those outside the FAA's or sponsor's jurisdiction.

b. To avoid an unnecessarily complex alternatives analysis process, the planner should carefully select different ways of addressing the identified need that are not simply variations on the same basic approach. Alternatives should have discrete, measurable, and materially different impacts on the established alternative evaluation criteria. Early work should consider a number of ideas, but these should be reduced to a manageable number of true alternative approaches through the initial steps of the process, taking care to adequately document what concepts were examined and why certain ones were dismissed. The need to work with a manageable number of alternatives in the master plan must be balanced with NEPA requirements to consider all reasonable planning alternatives to avoid or minimize impacts to environmental resources.

Planners should understand the condition of the airport, the business relationships between the airport and tenants, the future vision of the airport sponsor, the environmentally sensitive features of the airport, and other factors that make each airport unique.

c. There should be a direct link between the facility requirements and the development alternatives. Not all facility requirements are related to capacity shortfalls, as some will improve operations, comply with standards, or meet the sponsor's strategic objectives. However, the basis for all facility requirements should be clearly documented.

d. The alternatives should address those airport elements that are the focus of the particular master plan (airside, airline passenger terminal, or ground access) and de-emphasize functional elements that are less important to the airport's overall function.

e. The process of identifying alternatives should be iterative. It should begin with the identification of a broad range of possibilities, often generated by using a collaborative brainstorming approach. The focus should be on the primary elements. The elements should be reviewed to ensure that necessary interrelationships are considered (i.e., make sure there is a ground access option and airside option that supports each terminal option). The elements may conflict (i.e., a terminal option may conflict with an airside option). Initial screening should narrow the range of possibilities to those reasonable alternatives that meet the planning need for each element, which will then undergo more intensive development and evaluation.

f. As the alternatives are evaluated, planners may need to apply more specialized skills. In some cases, they may need to conduct airspace reviews to determine an alternative's aeronautical utility. In very complex cases, they may need to conduct preliminary engineering studies and prepare cost estimates.

g. In many cases, the secondary element may not require the formulation and analysis of alternatives, but may be integrated directly into the recommended primary element alternative. This is particularly true when the secondary element can follow an extension of an existing land use pattern and no environmental resources are affected.

904. EVALUATION OF ALTERNATIVES

The evaluation of alternatives (steps 3, 5, 8 and 11 in Figure 9-1) should be adapted to each airport's unique situation. Sophisticated and expensive analyses should be done only when deemed necessary to differentiate among alternatives. In all cases, the analysis should follow generally accepted planning practices, be replicable, consistently applied, and well documented.

The alternatives analysis process uses increasing levels of detail as the evaluation of alternatives proceeds. The initial rounds of evaluation should be qualitative and more subjective, based on a combination of good planning judgment, relatively simple-to-use models and simplified calculations. However, subsequent rounds of analysis should be more rigorous.

Evaluation criteria should be determined in advance, but may be adjusted based on information uncovered as part of the alternatives analysis process. Since the selection of appropriate evaluation criteria involves a significant degree of subjectivity, planners must be careful to achieve a balanced evaluation, while still being responsive to the various study participants' points of view. The planner must carefully consider factors of particular importance at the study airport, but make sure that the evaluation addresses all aspects of the alternatives. Therefore, the planner should include a broad range of evaluation criteria to ensure the adequate consideration of all aspects of the alternatives.

Evaluation criteria are divided into four broad categories: operational performance, best planning tenets and other factors, environmental factors, and fiscal factors. For most airports with relatively straightforward planning issues, a simple analysis across a broad range of evaluation categories will be sufficient. The following evaluation criteria should be adapted for each airport to achieve a balance between the need for a thorough evaluation and the inefficiency of over-analysis:

a. **Operational Performance** – How well the airport functions as a system can be evaluated from several perspectives, including capacity, capability, and efficiency.

1) ***Capacity*** – Test for the capability of accommodating future activity levels. Various capacity techniques can be applied to the airside, terminal, and ground access elements. Consistent application of the technique to each alternative will permit the planner to compare them.

2) ***Capability*** – Test for the capability of meeting specific functional objectives, such as accommodating the design aircraft, providing the required number of aircraft parking positions or gates, or allowing space for the runway length requirement.

3) ***Efficiency*** – Test how well the alternatives work as a system by examining combined alternative elements. For example, airfield taxiing efficiency can be evaluated by

combining terminal and airside alternatives to measure which combination yields the lowest weighted average aircraft taxiing time and the fewest runway crossings.

Several FAA offices have a role in assessing the aeronautical utility of various alternatives. These include the FAA's Air Traffic Organization (generally the terminal, technical operations, and planning units), Flight Procedures, and Flight Standards. Questions to be addressed may include the feasibility of approach procedures, navigational aid siting, and airspace interaction.

b. **Best Planning Tenets and Other Factors** – Planners should determine the relative strengths and weaknesses of the alternatives. The following best planning tenets will apply to the evaluation of alternatives at most airports, but others may be applicable at a specific airport:

1) Conforms to best practices for safety and security

2) Conforms to the intent of applicable FAA design standards and other appropriate planning guidelines

3) Provides for the highest and best on- and off-airport land use

4) Allows for forecast growth throughout the planning period

5) Provides for growth beyond the planning horizon, as applicable

6) Provides balance (typically capacity) between elements

7) Provides the flexibility to adjust to unforeseen changes

8) Conforms to the airport sponsor's strategic vision

9) Conforms to appropriate local, regional, and state transportation plans and other applicable plans

10) Technically feasible (limited site constraints)

11) Socially and politically feasible

12) Satisfies user needs

c. **Environmental Factors** – The potential environmental effects of the alternatives are an important consideration. The impact categories defined in FAA Order 1050.1, *Environmental Impacts: Policies and Procedures* and FAA Order 5050.4, FAA Airports guidance for complying with NEPA, offer significant insight about the likely impacts of various alternatives. At some airports, only a few of the items will be applicable, such as noise, wetlands, or social impacts and a simple approach will be sufficient to differentiate among the alternatives. Where an Environmental Assessment or Environmental Impact Statement is likely to be prepared, a more detailed evaluation of environmental factors will be useful. An environmental consultant may provide significant insight in such cases.

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Early consideration of the environmental effects of the alternatives can help ensure that they remain responsive to the overall environmental objectives of the airport sponsor. If early examination indicates that the principal alternatives are likely to have extensive environmental effects, it may be appropriate to develop additional alternatives. If there are no additional alternatives, the decision to move forward with the existing alternatives should be made only after careful consideration by the airport sponsor.

d. **Fiscal Factors** – Preparing rough cost estimates is a very effective way to compare alternatives and should be done in all alternatives analyses. Cost estimates should account for any special differences among alternatives. For example, in comparing a green-field site versus the redevelopment of an existing site, the evaluation should consider the respective cost advantages and disadvantages. A green-field site might have cost premiums associated with site work, installation of support infrastructure, and access roadways. At the same time, redevelopment might have cost premiums associated with demolition, phasing, and relocations.

Early fiscal analysis may also be necessary to determine if the alternatives are responsive to the fiscal constraints of the study airport. The identification of likely funding sources and their funding potential are important factors in determining the feasibility of the alternatives. If early estimates indicate that the principal alternatives are beyond the realistic fiscal capability of the airport, planners should include that information in the master plan and develop more fiscally responsible alternatives.

Planners may also prepare a preliminary benefit-cost analysis, following the current benefit/cost analysis guidance from the FAA Office of Airports. However, for most alternatives reviews, a summary analysis using reasonable estimates and judgment will be sufficient. Planners should conduct any required benefit-cost analyses in accordance with FAA guidelines when the development and financing plans are sufficiently refined to allow a more accurate estimate of the costs, benefits, and other factors.

905. SELECTION OF A RECOMMENDED ALTERNATIVE

a. The selection of an airport sponsor's recommended alternative (steps 9 and 12 in Figure 9-1) will usually be based on a combination of efforts, including: summation of the alternative evaluation criteria, supplemental analyses and evaluations, stakeholder input through the public involvement process, and sponsor preferences. The level of complexity of the selection process typically reflects the complexity of the airport's situation. However, in all cases the reasons for the selection of the recommended alternative should be clearly documented.

b. Summation of the alternative evaluation criteria can take many forms. Because this effort typically relies heavily on the judgment of the planning team, particular care must be taken to ensure that the summation process is clear and understood by the airport sponsor and study participants. In simple situations with relatively few evaluation criteria, a recommended alternative can often be selected with little or no summation of the evaluation criteria. In more complex settings, a matrix of findings can be effective in selecting a recommended alternative. In addition, a matrix of findings can document

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matters of judgment; facilitate the sponsor's, the FAA's, and others' participation in the decision making process; and build consensus regarding the recommended alternative.

In master plans that are controversial or will lead to an Environmental Assessment or that may require an Environmental Impact Statement, the planner should ensure that the process used to select a recommended alternative is comprehensive, logical, well documented, and has meaningful public participation. The public involvement process during a master plan serves an important function, but it does not replace the public involvement process required by NEPA and described in FAA Order 1050.1, *Environmental Impacts: Policies and Procedures* and FAA Order 5050.4, FAA Airports guidance for complying with NEPA. If the master plan contains short-term development projects that are known to require additional environmental processing, the airport sponsor should consider beginning the environmental processing prior to selecting a recommended alternative. Selecting a recommended alternative prior to beginning the environmental processing may complicate the NEPA process because the various agencies and public involved may perceive that the NEPA analysis is biased.

906. AIRPORT SITE SELECTION

The emphasis in airport planning is normally on the expansion and improvement of existing airports. Sometimes, however, an existing airport cannot be expanded to meet the future demand and a new or supplemental airport is required. In these cases, a new airport site may be selected as part of the airport planning process. The process of identifying, evaluating, and selecting a potential site for a new airport is similar to the process of identifying, evaluating, and selecting alternatives for individual airport projects. Appendix E contains guidance on the airport site selection process. If planners want to use Federal financial assistance under the AIP for follow-on planning or site acquisition and development, the FAA must approve the selected site before any additional planning work is started.

907. DOCUMENTATION GUIDELINES

a. The documentation of the alternatives identification, evaluation, and selection process should be a separate chapter in the master plan technical report. The planner should provide a summary at the beginning of the chapter that describes the recommended alternative and its principal benefits.

b. Planners should move technical information to appendices to improve the readability and organizational flow of the documentation.

c. Since this documentation may be heavily relied upon in a subsequent Environmental Assessment or Environmental Impact Statement, the planner should ensure that the documentation is logical and thorough. It should make clear what alternatives were considered, why particular alternatives were eliminated from further consideration, and why the recommended alternative was selected.

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Chapter 10 Airport Layout Plans

1001. GENERAL

a. This chapter provides guidance for the preparation of the drawings that make up the Airport Layout Plan (ALP) drawing set. The ALP depicts existing airport facilities and proposed developments as determined from the planners' review of the aviation activity forecasts, facility requirements, and alternatives analysis. The process outlined in this chapter also applies to ALPs that are prepared without a master plan.

b. FAA Order 5100.38, *Airport Improvement Program Handbook*, provides supplemental guidance for the preparation of an ALP. United States Code (USC) 47107(a) requires, in part, a current ALP approved by both the sponsor and FAA prior to the approval of an airport development project. USC 47107(a)(16) requires that the airport sponsor maintain an ALP that ensures the safety, utility and efficiency of the airport. Grant assurance number 29 requires that the sponsor keep the ALP up to date at all times. As stated in Order 5100.38, an ALP remains current for a five-year period, or longer, unless major changes at the airport are made or planned.

c. The minimum elements of the ALP drawing set are defined in Appendix F, *Airport Layout Plan,* of this AC. This chapter complements the ALP drawing set requirements in Appendix F.

d. The ALP preparer must work closely with the airport sponsor, the responsible FAA office, and if appropriate, the applicable state agency, to define the requirements, standards, and criteria to be employed. To ensure that the ALP is comprehensive, all parties must agree to its content and standards. ARP Standard Operating Procedure (ARP SOP) 2.00, FAA Review and Approval of Airport Layout Plans (ALPs), and ARP SOP 3.00, FAA Review of Exhibit 'A' Airport Property Inventory Maps, should be referenced for specific ALP review and approval procedures and additional preparation guidance. Current versions of these SOPs are located at http://www.faa.gov/airports/resources/sops/.

e. The five primary functions of the ALP that define its purpose are:

1) An ALP creates a blueprint for airport development by depicting proposed facility improvements. The ALP provides a guideline by which the airport sponsor can ensure that development maintains airport design standards and safety requirements, and is consistent with airport and community land use plans.

2) The ALP is a public document that serves as a record of aeronautical requirements, both present and future, and as a reference for community deliberations on land use proposals and budget resource planning.

3) The approved ALP enables the airport sponsor and the FAA to plan for facility improvements at the airport. It also allows the FAA to anticipate budgetary and

procedural needs. The approved ALP will also allow the FAA to protect the airspace required for facility or approach procedure improvements.

4) The ALP can be a working tool for the airport sponsor, including its development and maintenance staff.

5) An approved ALP is necessary for the airport to receive financial assistance under the terms of the Airport and Airway Improvement Act of 1982, as amended, and to be able to impose and use Passenger Facility Charges. An airport must keep its ALP current and follow that plan, because those are grant assurance requirements of the AIP and previous airport development programs, including the 1970 Airport Development Aid Program (ADAP) and Federal Aid Airports Program (FAAP) of 1946, as amended.

f. The ALP drawing set is a set of planning drawings and is not intended to provide design engineering accuracy. Individual items such as runway coordinates, obstruction survey data, and application of airport design standards must comply with Federal survey standards. The ALP preparer will need to define accuracy requirements for specific elements of the ALP in cooperation with the airport sponsor and approving agencies.

g. Airport Layout Plans are prepared either as first time ALPs, formal revisions based on changes to the airport, or informal revisions based on minor improvements to the airport. Informal revisions, often referred to as pen-and-ink revisions, can be made to individual sheets of the ALP drawing set, although the responsibility for review and approval must still be coordinated with the FAA. These and other requirements are discussed in FAA Order 5100.38, *Airport Improvement Program Handbook*.

1002. AIRPORT LAYOUT PLAN DRAWING SET

a. The individual sheets that comprise the Airport Layout Plan drawing set will vary with each planning effort. The ALP preparer, airport sponsor, FAA and any other approving agency must determine which sheets are necessary during the project scoping activities. ARP SOP 2.00, Appendix A, ALP Review Checklist, may be used to guide the scope development. The following sheets are described further in the SOP:

1) ***Cover Sheet*** – A separate cover sheet, with approval signature blocks, airport location maps, and other pertinent information as required by the local FAA Airports office.

2) ***Airport Layout Plan*** –A drawing depicting the existing and future airport facilities. The drawing should include the depiction of all applicable design standards contained in the latest version of Advisory Circular 150/5300-13, including but not limited to, landing areas, movement areas and aircraft parking areas (e.g., runways, taxiways, helipads, aprons, etc.), required facility identifications, description labels, imaginary surfaces, Runway Protection Zones, Runway and Taxiway Safety Areas, Runway and Taxiway Object Free Areas, Runway Obstacle Free Zones and basic airport and runway data tables. It may be necessary to include the data tables on a separate sheet. Figure 10-1 is an example of an ALP drawing.

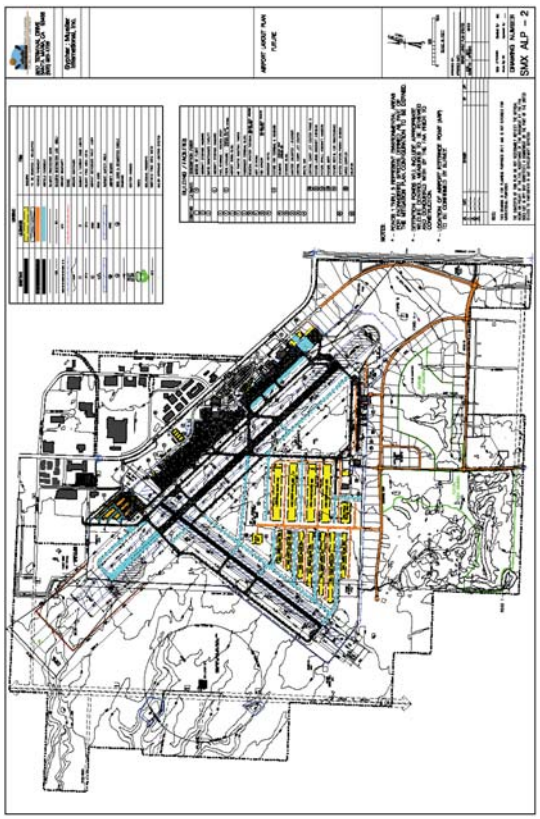

Figure 10-1: Airport Layout Plan Drawing

Source: Santa Maria Airport (SMX), prepared by Sypher:Mueller.
Note: This is a draft airport layout plan and has not yet been reviewed or approved by FAA.

3) ***Data Sheet*** – A separate sheet containing basic airport and runway data tables.

4) ***Facilities Layout Plan*** – A drawing that depicts existing and future facilities, and only critical, non-overlapping clearance criteria, with minimal text. It is essentially a simplified ALP.

5) ***Terminal Area Plan(s)*** – This plan consists of one or more drawings that present a large-scale depiction of areas with significant terminal facility development. Such a drawing is typically an enlargement of a portion of the ALP. At a commercial service airport, the drawing would include the passenger terminal area, but might also include general aviation facilities and cargo facilities.

6) ***Airport Airspace Drawing*** –14 CFR Part 77, *Objects Affecting Navigable Airspace*, defines this as a drawing depicting obstacle identification surfaces for the full extent of all airport development. It should also depict airspace obstructions for the portions of the surfaces excluded from the Inner Portion of the Approach Surface Drawing.

7) ***Inner Portion of the Approach Surface Drawing*** –Drawings containing the plan and profile view of the inner portion of the approach surface to the runway and a tabular listing of all surface penetrations. The drawing will depict the obstacle identification approach surfaces contained in 14 CFR Part 77, *Objects Affecting Navigable Airspace*. The drawing may also depict other approach surfaces, including the threshold-siting surface, those surfaces associated with United States Standards for Instrument Procedures (TERPS), or those required by the local FAA office or state agency. The extent of the approach surface and the number of airspace obstructions shown may restrict each sheet to only one runway end or approach.

8) ***On-Airport Land Use Drawing*** – A drawing depicting the land uses within the airport property boundary.

9) ***Off-Airport Land Use Drawing*** – A drawing depicting land uses and zoning in the area around the airport. At a minimum, the drawing must contain land within the DNL 65 db noise contour and to the extents of the future RPZs, if they extend beyond the airport property. For general aviation airports or low activity commercial service airports, where noise issues are less important, on-airport land use and off-airport land use drawings may be combined.

10) ***Airport Property Map*** – A drawing depicting the airport property boundary, the various tracts of land that were acquired to develop the airport, and the method of acquisition. This drawing is only required for those airports that have acquired land with Federal funds or through an FAA-administered land transfer program; however, it may be useful to all airport sponsors. If any obligations were incurred as a result of obtaining property or an interest therein, they should be noted. Obligations that stem from Federal grant or an FAA-administered land transfer program, such as surplus property programs, should also be noted. The drawing should also depict easements beyond the airport boundary. An airport property map is not a substitute for an Exhibit A unless it is prepared in accordance with AC 150/5100-17, *Land Acquisition and Relocation Assistance for Airport Improvement Program Assisted Projects.*

11) ***Runway Departure Surface Drawing*** – This drawing depicts the applicable departure surfaces as defined in Table 3-2 and Figure 3-4 in FAA AC 150/5300-13. The surfaces are shown for runway end(s) designated primarily for instrument departures. The one-engine inoperative (OEI) obstacle identification surface (OIS) should be shown for departure runway end(s) supporting air carrier operations.

12) ***Utility Drawing*** – This drawing depicts the location and capacity of major utilities on the airport and in the surrounding area.

13) ***Airport Access Plans*** – If access to the airport is a significant issue, a separate airport access drawing should be created, depicting the major routes of various modes of transportation that serve the airport. Such a drawing could also include proposed improvements to the system.

14) ***Other Plan(s)*** – Drawings that address a specific, unique need at the airport. For example, these drawings may include a Well Site Plan for on-airport oil and gas extraction, or a Launch Site Boundary for commercial spaceport facilities[2], etc.. The sponsor, FAA and other approving agencies must discuss and agree to include them.

1003. COMPUTER-AIDED DESIGN STANDARDS

a. ALP drawings may be produced electronically using design software. The sponsor and responsible reviewing agency will select what program to use. Design standards should be established and may include defined line types, line weight/thickness, lettering styles, symbols, and file-naming conventions. The sponsor, FAA and/or state agency must determine which standards must be followed in development of the Airport Layout Plan drawing set.

b. Following computer design standards will facilitate the review and approval of the drawings by the responsible agency, reduce the chance of someone misunderstanding the drawings, produce drawings that are useful for the reviewing agency and the airport sponsor, and produce drawings that may be used in subsequent planning and design efforts.

1004. GEOGRAPHIC INFORMATION SYSTEMS APPLICATIONS

a. Geographic Information Systems (GIS) allows users to visualize, question, analyze, interpret, and understand data to reveal relationships, patterns, and trends. GIS may be used by the airport sponsor for a number of purposes, including the inventory and maintenance of airport facilities, preparation for emergency services, planning for airport improvements, the inventory of airport property, and the inventory of sensitive environmental areas.

b. The ALP may be linked to an existing GIS or the airport sponsor may implement a new GIS incorporating the ALP. Airports are required to submit digital geospatial data in

[2] See FAA's publication entitled "Proposed commercial space facilities and operations at Federally-obligated or Part 139 airports," dated October 20, 2014, available online at http://www.faa.gov/airports/airport_safety/

conformance with the most current version of AC 150/5300-18, *General Guidance and Specifications for Submission of Aeronautical Surveys to NGS: Field Data Collection and Geographic Information System (GIS) Standards*.

1005. BASE MAPPING AND DATA SOURCES

Base mapping and data source issues should be discussed as part of the master plan scoping, since they may affect not only the ALP drawings, but also subsequent environmental matters. These issues might include the following:

a. **Base Mapping** – The level of detail required for the base mapping of the ALP must be determined by the airport sponsor, FAA, state agency, and the ALP preparer. Although some sponsors may already have the necessary data, new base mapping will often be required. Base mapping is typically done at the outset of the planning effort and is used in the facility requirements determination and alternatives analysis and selection. Since these processes ultimately establish the total area that will be depicted on the drawings, the preparer should establish the area that must be mapped by considering the following:

- Potential airport expansion beyond the existing boundaries
- The extent of noise contours
- Location of other potential environmental impact areas
- The area required to address ground access issues
- The area to be depicted on the Approach Surface Drawing
- Implications of the use of GIS

The ALP preparer will need to determine, based on topography, budget, and future uses of the base mapping, what intervals of topographical contours to use on the maps. Topographic issues may be important in the alternatives analysis, which may require that reduced contour intervals be used. The ALP preparer should also consider how to analyze airspace obstructions and violations. If aerial photogrammetry is used for the obstruction analysis, mapping can be paired with it, but parameters for both products must be established.

b. **Airspace Obstruction Identification and Analysis** – An assessment of airspace obstructions near the airport should be included on the Approach and Departure Surfaces Drawings and the Airspace Drawing. The ALP preparer and reviewing agency must establish data sources and parameters for this assessment. Obstruction data sources include airport obstruction removal programs, previous obstruction survey data, the airport's Obstruction Chart, and the FAA Digital Obstacle File. Numerous methods may be used for inventorying new obstructions or for verification of identified obstructions, including a physical site survey using traditional methods, aerial photogrammetry; and laser mapping. Obstruction analysis parameters include the extent of the approach surfaces to be surveyed and analyzed, and the survey of areas off the sides of the runways. Existing obstruction clearing and maintenance programs at the airport may minimize the need for extensive obstruction surveying. Conversely, development of a new airport, construction of new runways, and the extension, reclassification, or approach procedure revisions to existing runways may require additional surveying. Surveys should be done in accordance with FAA Advisory Circulars 150/5300-16, 17, and 18.

c. **Off-Airport Property** – The airport property map will identify the parcels that were acquired to develop the airport. The airport alternatives analysis may benefit from an inventory of parcels surrounding the airport boundary, particularly in areas of anticipated airport development. Being able to identify these parcels by size and use may also benefit potential subsequent environmental studies. The ALP preparer, the responsible agency, and airport sponsor should determine if expanding the property map to include these areas is necessary.

1006. CHECKLISTS

a. ARP SOP 2.00, Standard Procedure for FAA Review and Approval of Airport Layout Plans (ALPs) should be referenced for the most current ALP Checklist for use in scoping the ALP and managing the ALP review and approval process. This SOP replaces earlier checklists provided by individual Regions and District Offices.

b. For airports not included in the NPIAS, the FAA's checklist may not apply; states may have separate requirements.

c. Planners must verify that the ALP checklist is current, since it is continually revised to reflect changing Federal and state standards.

d. Once the applicable checklist has been identified, the ALP preparer should consult with the reviewing agencies to define the specific items on the checklist that are applicable to the project. The checklist is comprehensive and not all items are applicable to a specific project.

1007. APPROVALS

a. The ALP drawing set approval process may vary, depending on the requirements of the state aviation agency. The airport sponsor, FAA, state, and ALP preparer need to identify a review and approval process at the outset of ALP preparation.

b. FAA Order 5100.38, *Airport Improvement Program Handbook*, states that FAA review and coordination of the ALP will cover Federal interests and must consider any required coordination that was not completed at the local or state level.

c. The review of the Airport Layout Plan drawing set will typically be completed through multiple submittals. Milestones must be determined by the reviewing agency, but typically include:

1) ***Preliminary ALP submittal*** – The drawing set should be submitted to the sponsor for review and comment to ensure that the graphic depictions correctly present the sponsor's goals.

2) ***Draft ALP Submittal*** – The drawing set and support documentation should be submitted to the FAA and state aviation agencies for review and comment. Supporting documentation will include the ALP checklist and must be predetermined

with reviewing agencies. Review comments may be addressed prior to submittal of the Draft ALP drawing set for airspace review.

3) ***Draft ALP Airspace submittal*** – The Draft ALP drawing set should be submitted to the reviewing agency for distribution to various FAA offices for airspace review. As noted above, in some cases the FAA or state may require that the Draft ALP drawing set be submitted for review and comment and then resubmitted for airspace review after their comments have been addressed. In other cases, the FAA may conduct the airspace review at the same time as its general review of the Draft ALP drawing set.

4) ***Final ALP submittal*** – The ALP drawing set should be revised, as needed, based on the airspace determination and review comments if these were not addressed prior to submitting the Draft ALP drawing set for airspace review. The final ALP drawing set and accompanying narrative (Master Plan Report or ALP Narrative Report) should be sent to the reviewing agency for distribution.

d. Conditional Approval – The FAA may approve the ALP drawing set conditionally, based on specific components that will be subject to further review and approvals prior to funding and implementation. See Chapter 5 for additional information regarding master plan environmental review and ALP approval.

e. Unconditional Approval – The FAA may unconditionally approve the ALP drawing set when all proposed development projects are either categorically excluded from additional environmental processing, have received a Finding of No Significant Impact resulting from an Environmental Assessment, or have received a Record of Decision resulting from an Environmental Impact Statement.

1008. DOCUMENTATION GUIDELINES

a. The requirements for documentation of the ALP drawing set must be determined with the airport sponsor and the reviewing agency or State agency. Documentation will typically include a complete reduced-size set of the ALP drawing set and the accompanying text. The master plan will provide the narrative if the ALP is prepared as part of a master plan. If the ALP is prepared separately as an ALP Update, an ALP narrative is required. The narrative will typically describe ALP development criteria and the rationale for the development shown on the ALP. Examples of these include airport reference code-related design criteria unique to specific areas of the airfield, or known or proposed modifications to FAA design standards. (See Section 202.c of this AC for further guidance on the ALP Narrative Report.)

b. The quantity and form of ALP drawing sets must also be defined by the airport sponsor, FAA and state agencies. A reproducible, signed original copy and multiple paper copies of the drawings set may be required. Distribution requirements should be established during the project scoping.

c. Electronic files of the Airport Layout Plan drawing set may be prepared. These files are typically provided to the reviewing agency and may also be provided to the sponsor.

d. Once approved by the sponsor and approving agency, the ALP becomes a legal document and the sponsor should consider placing security controls on the ALP drawing set to prevent unauthorized changes to the drawings.

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Chapter 11 Facilities Implementation Plan

1101. GENERAL

a. The facilities implementation plan provides guidance on how to implement the findings and recommendations of the planning effort. Facility implementation plans will vary considerably, depending on the complexity of the projects and the airport sponsor's preferences. In some cases, a simple schedule, listing of key projects, project descriptions, timing of key activities, estimated development cost, interrelated projects, and any special considerations will be sufficient. Other situations may warrant a detailed implementation plan that includes a comprehensive master schedule for the implementation of the major projects, a detailed coordination plan outlining key activities and responsibilities, and detailed project descriptions in the form of project data sheets or project booklets for each major project. In all cases, an implementation plan should provide the airport sponsor and FAA with the information they will need to integrate the master plan's recommendations with the daily activities of the airport.

The airport sponsor, FAA, and other involved parties may use similar terms to describe somewhat different components of the facility implementation plan, particularly in regard to what makes up a Capital Improvement Plan (CIP). Airport sponsors maintain a "capital improvement program" or a "capital improvement plan" that includes all of their airport planning and development projects, both eligible and ineligible for AIP funding. The FAA considers actual funding requests through the Airports Capital Improvement Plan (ACIP) process.

Regardless of the terms used, the facilities implementation plan must address all of the airport's planned capital projects (even those projects that are not associated with the recommendations of the master plan) to ensure that adequate fiscal, staff, scheduling, and other resources are available. In addition, all documentation should be prepared so that it will be clearly understood by all parties.

The facilities implementation plan must balance funding constraints; project sequencing limitations; environmental processing requirements; agency and tenant approvals and coordination processes; business issues, such as leases and property acquisition; and sponsor preferences. The plan must also be coordinated with the master plan ALP and the airport's financial plan.

The facilities implementation plan may change from year to year in response to changing conditions. Therefore, the facility implementation plan should be prepared so that it is easy to update after the master plan is completed. For example, future aviation activity may grow more quickly than the initial facilities implementation plan anticipated, requiring modification of the plan to allow earlier implementation of projects. It should be more detailed in its early years than in the later years to reflect the imprecise nature of long-range facility planning.

1102. FORMULATION OF THE CAPITAL IMPROVEMENT PLAN

a. A new or revised Capital Improvement Plan (CIP) is a key element of the facility implementation plan. The projects illustrated on the ALP should be more precisely described in the sponsor's CIP. While the ALP illustrates facility improvements for broad time periods, (5, 10, and 20 years), those descriptions must be refined into specific projects for the CIP. The airport sponsor will then be able to integrate the master plan projects into its overall program of facility improvement projects, repair projects and maintenance projects. In some cases, planners may need to significantly revise the sponsor's existing CIP if it includes projects that are no longer relevant to the airport's development as a result of changes in the master plan. At large airports, where there may be many ongoing development projects, it can be difficult to integrate the projects identified in the master plan into the sponsor's existing CIP. The planner should work with the sponsor to define ongoing projects with regard to schedule, scope, and sources and uses of funds in order to integrate the master plan projects into a realistic CIP.

b. Given the wide variability in project descriptions and CIP processes, the planner needs to understand the requirements of the sponsor, FAA, and other applicable agencies before undertaking this task. Effective coordination among the planner, FAA, and the sponsor is essential. The airport's CIP contains all projects including those that may not be reflected in the FAA's planning module of SOAR. The level of detail in the sponsor's CIP may also vary considerably, depending on the complexity of the study airport and sponsor preference.

Specific projects, based on the ALP, should be divided into smaller projects that reflect how projects are approved, designed, and constructed. Planners should maintain an appropriate project scope in designing individual projects. For example, if the master plan recommends the extension of a runway, the project would include extending the runway, as well as associated projects such as extending the parallel taxiway and adding associated navigational aids, electrical systems, and service roadways. However, if the master plan recommends the relocation of a passenger terminal, the subsequent projects associated with that could be extensive in themselves, including projects to address access roadway modifications, terminal area parking, terminal curb and roadway, terminal building and concourse, terminal apron, access taxiways, and miscellaneous support infrastructure. In all cases, however, the standard descriptions outlined in the SOAR planning module should be used for projects submitted to the FAA for funding consideration. Each component of an overall project should be described. For example, the land acquisition that is part of a runway extension should be described as "Extend Runway – Land Acquisition, Phase 1."

Specific projects can be described as project listings on a master table, on individual project data sheets, or in projects booklets. The approach used will vary with the level of detail needed to support the sponsor's needs. Project descriptions may include the following types of information:

- Project identification (name and project number)
- Project scope (detailed project description and illustrations)
- Concise project purpose or objective (why the project is needed)

- Project schedule (begin/end dates for pre-design, design, construction, close out, and start-up)
- Prerequisites, dependent, and interrelated projects
- Project budget (construction cost estimate, including quantities and unit costs, soft costs, and contingencies)
- Environmental processing required
- Funding information (AIP grant and PFC estimates, other funding source),
- Special considerations (lease considerations, property acquisition requirements, known environmental mitigation requirements, and site constraints)
- Identification of responsibilities (key activities and when they must be completed, by agency, organization, position, or person)
- Benefit/cost information (see Chapter 12 for a discussion of the FAA's *Airport Benefit Cost Analysis Guidance*)

1103. PROJECT SEQUENCING AND THE COMPREHENSIVE MASTER SCHEDULE

a. Airport projects may be complex, so the implementation plan should consider the interrelationships among the projects in the sponsor's existing and revised CIP. Planners should examine all projects to establish interrelationships, determine a sequence to minimize conflicts, and establish a master schedule to ensure the sequence is maintained throughout the implementation plan.

The facility implementation plan should cover the same years as the forecasts in the planning effort. Typically, detailed information should be provided for the five-year horizon, with less detail provided for the longer planning periods.

In addition to the technical aspects of designing and constructing the projects, the project sequencing plan or master schedule should reflect the sponsor's overall financial, environmental, and strategic plans. Developing the project-sequencing plan is an iterative process and may result in the reformulation of projects or revisions to the airport's financial, environmental, and strategic plans.

Since activity rarely grows exactly as forecast in the master plan, establishing triggers for key improvements, such as an aircraft apron expansion, additional aircraft storage hangars, or additional runway capacity, is recommended to allow a sponsor to respond to actual activity levels as they occur. The project-sequencing plan should document these triggers along with the year in which planners expect them to be reached. Such an approach will be particularly useful for the longer-range part of the implementation plan.

Preparation of the project-sequencing plan should be undertaken with a full understanding of how the airport sponsor will use the implementation plan. Given the high levels of complexity associated with such an effort, planners should ensure that planning resources are efficiently used to meet the sponsor's needs. In many cases, a plan that simply highlights the order of the projects and key activity triggers will be sufficient. In more complex situations, an implementation plan should include the preparation of an actual master schedule that incorporates project sequencing, key activities, and the identification of the responsible parties.

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1104. KEY ACTIVITIES AND RESPONSIBILITIES

a. The implementation plan should provide information regarding key activities and responsibilities. Because the lead-time associated with many projects is significant, the early identification of key activities and responsibilities can help ensure that essential preparatory activities are completed on a timely basis. As with other elements of the implementation plan, the level of detail regarding key activities and responsibilities will vary, depending on the sponsor's needs and the complexity of the program.

The key activities and responsibilities will vary from airport to airport, but will include many of the following:

1. ***Sponsor-specific project approval activities***, such as airport board, council, or other administrative body approvals; various budgetary approvals and funding appropriations; and similar sponsor-specific items
2. ***Airline and other tenant approvals*** and lease modifications
3. ***Project funding activities***, such as FAA and other agency grant applications, PFC application, and long-term debt financing.
4. ***Environmental processing activities***, as appropriate, under current versions of FAA Order 1050.1, Environmental Impacts: Policies and Procedures and FAA Order 5050.4, FAA Airports guidance for complying with NEPA.
5. ***Land acquisition activities***
6. ***Sponsor-specific project implementation process activities*** associated with designing and constructing the projects
7. ***Agency coordination activities***, including the FAA, local metropolitan planning organization or its equivalent, Transportation Security Administration, Department of Defense, and other agencies that may have direct involvement with the airport
8. ***Public Coordination activities*** that carry the public involvement process into the project implementation phase

At a minimum, the listing of key activities and responsibilities should include what activities should be undertaken, by what party, and when. In more complex situations, it may be useful to provide a schedule of activities or to incorporate the key activities and responsibilities into the overall sponsor's CIP master schedule.

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1105. DOCUMENTATION GUIDELINES

a. The documentation of the facilities implementation plan will vary, depending on the complexity of the study airport and sponsor objectives. Because the implementation plan may be read as a stand-alone document, planners should provide enough source documentation so the plan can be independent of the master plan. Planners should use appendices to improve the readability and organizational flow of the documentation, particularly if project data sheets, project booklets, or benefit/cost analyses are included. The documentation should include any electronic spreadsheets and files so as to facilitate the modification of the facilities implementation plan as needed. Prior coordination with the local FAA Airports office will facilitate the integration of the sponsor's CIP into the planning module of SOAR.

b. The documentation of the facilities implementation plan should normally include a new or revised CIP for at least the short-term airport development projects. Planners should address major developments in sufficient detail so the sponsor will know how to fund each project in the CIP. The plan should clearly indicate other agencies that are anticipated to provide grants-in-aid so they can determine the appropriate level of their involvement.

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Chapter 12 Financial Feasibility Analysis

1201. GENERAL

a. This chapter provides guidance on what will be required to demonstrate the airport sponsor's ability to fund the projects in the master plan. Planners should emphasize the projects that they expect to implement over the near-term, as presented in the capital improvement plan (CIP). A more general discussion of the funding of the medium- and long-term projects is more appropriate because of the uncertainty of future funding and - possible shifts in the importance of those projects.

b. The sponsor's ability to fund the recommended projects should be a major consideration in preparing the CIP and facilities implementation plans. The financial feasibility analysis should take place concurrently with the development of the CIP and the facilities implementation plan.

c. The level of effort necessary to conduct a financial feasibility analysis will vary considerably, based on the size of the airport. In general, items to consider are: the funding sources for the CIP, a projection of revenues and expenses (pro forma cash flow analysis) for each year of the CIP, and methods to enhance airport revenues.

d. During the scoping process for the master plan, planners may determine that the financial feasibility analysis need not be a stand-alone chapter. The CIP and facilities implementation plan should provide adequate information on how the projects in the CIP will be funded.

1202. SOURCES OF FUNDING

a. Airport development can be financed from several sources, including Federal and state grants-in-aid, private financing or third party development, passenger facility charges, customer facility charges, a variety of bonds, and local funds.

1) **Federal Funding** – Some airport projects are eligible for FAA funding through the Airport Improvement Program (AIP), which provides entitlement funds for primary airports (based upon their annual enplaned passengers), airports supporting significant cargo activity (based upon the proportion of landed cargo weight), state apportionment and nonprimary entitlement funds. Additional AIP funds, designated as discretionary, may also be available for eligible projects, based on the FAA's national priority system and several other factors.

Although the AIP has been reauthorized several times and the funding formulas have been periodically revised to reflect changing national priorities, the program has remained essentially the same. Public use airports included in the NPIAS and that serve civil aviation may receive AIP funding for eligible and justified projects, as described in FAA Order 5100.38, *Airport Improvement Program Handbook*. The airport sponsor must fund the remaining project cost, using a combination of the funding sources discussed in this section.

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2) **State Funding** – Many states have programs to assist in airport capital development. The administration of these funds depends on the mechanisms established in each state. The most common source is a state aeronautics commission or department. State funds are often used to provide some part of the non-Federal share of projects supported by the FAA and for other projects that have been included in the state airport or aviation system plan. Most states have established a priority system for the allocation of state funds. Some states also provide limited funding to airports to support local economic development.

3) **Third Party Development** – Third party financing may be appropriate in a case where an airport sponsor uses a third party developer or a tenant to finance a construction project. Only projects with a strong positive cash flow can support this type of financing. Generally, the third party would lease the structure for a period of years to the tenant paying the airport ground rents. According to the terms of the agreement, the airport sponsor receives ownership of the asset upon expiration of the lease. This method of financing preserves the airport sponsor's cash to fund higher priority projects. Examples of projects that are funded in this manner include the development of passenger terminals, general aviation hangars, corporate hangars, and cargo facilities.

4) **Passenger Facility Charge** – The Aviation Safety and Capacity Expansion Act of 1990 authorized the Secretary of Transportation to grant public agencies the authority to impose a Passenger Facility Charge (PFC) to fund eligible airport projects. PFC revenue may be used on a "pay-as-you-go" basis or leveraged to pay debt service on bonds or other debt used to pay for PFC-eligible projects. Although the FAA is required to approve the collection and use of PFCs, the program permits local collection of PFC revenue through the airlines operating at an airport and provides more flexibility to airport sponsors than AIP funds.

To be eligible for PFC funding, a project must preserve, enhance, or make a significant contribution to the safety, security, or capacity of the national air transportation system; reduce noise or mitigate noise impacts resulting from an airport; improve local air quality in accordance with the Voluntary Airport Low Emission program; or furnish opportunities for enhanced competition between or among air carriers; reduce current or anticipated congestion; or other qualification that may be added to the program over time. Allowable project costs include only those incurred on or after November 5, 1990. Regulations associated with the imposition of a PFC are described in 14 CFR Part 158, as implemented through FAA Order 5500.1, *Passenger Facility Charge*.

5) **Customer Facility Charge** – A customer facility charge (CFC) is a fee paid by airport customers for the use of some non-aeronautical service at the airport. These charges are commonly collected from on-airport rental car agencies. The funds are collected by the rental car agency from their customers and then paid to the airport for use in paying the debt service on, for example, a consolidated rental car facility. The airport constructs the facilities on behalf of the agency, allowing them to finance major projects, but keeping the debt off their balance sheets.

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6) **Bonds** – A variety of bonds can be issued to support airport development projects.

a) ***General obligation bonds*** are backed by the creditworthiness and taxing power of the municipality operating the airport. They usually bear low interest rates because of their high degree of security. However, state laws may limit a municipality's overall debt, and competition from other community financing requirements may preclude their use for an airport project. Some states have an exemption from the debt limitation rule for general obligation bonds because they are used for a revenue producing enterprise.

b) ***Revenue bonds*** pledge the revenues of an airport sponsor to the repayment of debt service. These are the most common source of funding at larger commercial service airports. Revenue bonds are popular because they do not burden the taxpayer or affect the bonding capacity of the municipality. However, their use is limited to airports with a sufficient operating surplus to cover the debt service. Projected Net Revenues must exceed debt service requirements by at least 1.25 times and up to 2.0 times, depending on the strength of the bond issuer and the underlying assumptions with respect to the market risk for the bonds. Interest rates are dependent on the coverage ratio, but in any case will be higher than for general obligation bonds. Other factors that may affect the interest rates on revenue bonds are the strength of the local passenger market and the financial condition of the airlines serving the market.

c) ***Special facility revenue bonds*** are normally issued by the airport sponsor for the construction of a facility for a third party and backed by the revenues generated from that facility. This method of funding can be used for such facilities as maintenance hangars, airline reservation centers, terminal buildings, and air cargo terminals.

d) ***Industrial development bonds*** can be issued by states, local government, or an airport authority to fund the construction of an airport industrial park or other facilities that may attract business and increase non-aeronautical leasing revenues at the airport.

7) **Local Funds** – The remaining portion of project costs must be funded from local sources. The local share of project costs can come from the annual cash flow at the airport or with unrestricted cash balances available to the airport sponsor. The local municipality may provide the local share from its annual cash flow or available cash reserves.

1203. FINANCIAL FEASIBILITY

a. **Prepare CIP Funding Plan** – The CIP and development-phasing plan for the CIP prepared in the facilities implementation plan should be summarized, with the potential funding sources clearly identified for each year of the financial plan. The planner should use realistic assumptions about the amount of external funding available so an accurate plan of finance can be carried forward in the financial feasibility analysis.

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If the airport sponsor needs to issue debt for projects included in the CIP, it should identify the financing assumptions for the amount of bond proceeds needed to cover the local share and annual debt service requirements.

b. **Review Airport's Financial Structure** – Planners should analyze the financial structure of the airport to determine the composition of the airport's management, relevant airport leases, and other operating issues that will affect future cash flow at the airport.

1) Airports are typically operated under the jurisdiction of city or county government, with airport or aviation departments or public authorities dedicated either to airports or aviation, or with a department responsible for aviation or airports. The ability of the airport to finance capital improvement projects depends upon the political, management, and financial structure under which these entities operate. The airport's ability to support development is based on the likelihood of obtaining Federal and state aid, its ability and willingness to issue a financial instrument to fund a portion of the costs, and the amount of revenue from airport operations.

2) Revenue-producing areas, or direct cost centers, for a high activity commercial service airport typically include the landing area (airfield), aircraft aprons, terminal, (both space rental and concessions), parking and ground transportation, cargo buildings, aircraft maintenance facilities, fixed base operator facilities, and other leased areas. Many of these revenue-producing facilities will not exist at smaller airports.

Airports commonly use two mechanisms for the recovery of airport operating costs from airlines and other tenants in the airport terminal: the compensatory cost method and the residual cost method. The compensatory approach allocates all airport costs to cost centers and the rates and charges are assigned to airport tenants based upon recovering these costs in proportion to the tenant's use of these facilities and services. A residual methodology has one or more signatory airlines agree to pay the net costs of operating the airport not recovered from other tenants or other sources of airport revenue. One of the basic differences in these two funding mechanisms is the assignment of risk. In the compensatory cost method, the airport sponsor assumes the financial risk, whereas in the residual cost method the signatory airlines assume the risk. These two methodologies represent either end of the airline rate-setting methodology spectrum. Many "hybrid" allocation methodologies are used at commercial service airports.

3) Planners should examine the budgeting process used by the airport to establish the financial management plan for operating revenue, operating and maintenance (O&M) expenses, and capital expenditures.

4) At larger airports where the complexity of the financial analysis increases, the planner should recognize that constraints may occur because of the various legal documents relating to the airport, including any bond ordinance, airline use and lease agreements, and other operating agreements at the airport, such as:

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a) ***A Bond Ordinance or Trust Indenture*** limits the amount of additional debt that an airport sponsor can issue to fund capital projects and may include the application of revenue, rate covenant, and additional bonds test. The application of revenue refers to the priority of the flow of funds of the airport's gross revenues. A rate covenant requires the airport sponsor to set rates, fees, and charges at the airport at a level that will produce net revenues that will satisfy the debt service coverage requirement. An additional bonds test is the documentation the airport sponsor must produce to prove that the airport can generate the necessary coverage before it can issue additional bonds.

b) ***The Airline Use and Lease Agreement (AULA)*** is the contractual relationship between the airport and the airlines serving the airport. Normally this agreement would specify the airfield facilities available to each airline, the terminal space leased by each airline, and the rates and charges for use of the various facilities, landing fees, apron fees and any other charges. In a residual cost center arrangement, the airlines often have majority-in-interest (MII) approval, which is a weighted "vote" to construct capital projects that are included in the airline rate base. This allows an airport sponsor to include the net cost of a capital project in the airlines' rate base if a majority of the airlines approves that project, based on the terms of the AULA.

c) ***Lease documents*** are established between the airport and aeronautical and non-aeronautical tenants, such as fixed based operators, concessionaires, and airport service providers. Normally these lease agreements specify the term of the lease, the specific assignment of space for these business enterprises, the rental rate or fees for use of the facilities, and a concession fee.

d) ***Analyze Historical Cash Flow*** – The planner should examine both the airport revenues and O&M expenses by cost center, where applicable, for the prior three-to-five years and a historical cash flow profile for the airport that describes financial operating trends. The planner may decide to exclude non-cash expenditures such as depreciation and amortization. The historical cash flow will be useful in projecting future revenues and O&M expenses.

e) ***Prepare Pro Forma Cash Flow Analysis*** – The planner should prepare a pro forma cash flow analysis that projects airport revenues, O&M expenses, existing and new debt service requirements, and other non operating revenues and expenses for each year of the CIP. The general test of financial feasibility applied throughout the planning process is the ability of the airport sponsor to cover the local cost of the CIP through airport cash flow.

(1) Planners for low activity airports should recognize their dependence on Federal and state aid for improvements, but should not rely on the availability of such funds. Instead, they should consider alternative strategies for financing in an effort to become more self-sufficient, in accordance with AIP grant assurances. The master plan should discuss the investment requirements and the benefits of the proposed development, so the airport sponsor can make

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practical decisions predicated on availability of funds and public investment priorities.

(2) High activity commercial service airports usually generate sufficient revenue to support revenue bond financing for capital improvements. Such airports' need to supplement bond financing with Federal aid will vary in degree, usually depending on activity levels. High activity commercial service airports are usually self-sufficient and produce adequate cash flow from setting rates, fees, and charges at the airport in accordance with the Bond Ordinance, airline use and lease agreements, and other operating agreements.

(3) In conducting the pro-forma cash flow analysis, the planner should focus on the three to five year time frame that coincides with the CIP. The planner should also emphasize the first 10 years of development, since the CIP is generally better defined during that period. Discuss development during the 10 to 20 year horizon in a broader manner, because projects during this period are often demand driven and will have a neutral effect on the airport's cash flow. In addition, over the longer-term, priorities for airport capital projects may change and a new master plan or update may be completed.

(4) In analyzing the financial feasibility of an airport's CIP, the planner may choose to value construction expenses, operating revenues, and O&M expenses in current year dollars.

(5) The planner may decide to increase the capital cost from current year dollars to the year in which construction is expected. If the planner conducts the analysis in this manner, inflationary impacts must be included in the projection of revenues and O&M expenses, along with increases because of operational factors.

f) ***Conduct Sensitivity Analysis*** – In some cases, a sensitivity test may be warranted to assess financial risk. For example, the planner may want to test different rates of passenger growth to determine how sensitive the financial plan is to this, particularly where PFCs or revenue bonds are being heavily relied upon in the CIP.

1204. REVENUE ENHANCEMENT

a. Airports are often under pressure to improve their financial condition to keep user costs at reasonable levels. In preparing the pro forma cash flow analysis, the planner should compare the financial performance of the study airport to that of comparable airports to identify ways to increase concession, airline, and non-aeronautical revenues.

b. Increases in concession revenues will be subject to the terms of existing operating agreements. Certain concessions may not be subject to operating agreement constraints, including automobile parking rates, future land rental rates, fuel flowage fees, and aircraft tie down fees, but may be subject to others constraints.

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c. The existing AULA may not allow the airport sponsor to recover the cost of operating the airport from the airlines, or the terms of the existing airline agreement may no longer meet the needs of the airport sponsor. Alternatively, the airport sponsor may have sufficient unrestricted funds and wish to reduce airline-operating costs. In either case, the master planning process is a good time for the airport sponsor to examine its AULA and make appropriate revisions, to the extent it is able, particularly if there are projects in the CIP that will require funding from the airlines.

d. Non-aeronautical revenues provide the best opportunity for an airport sponsor to establish new types of lease revenue, based on the use of existing land parcels at the airport. An example of such an arrangement is a short-term lease of land to grow hay, grass or to graze cattle, which would allow the airport sponsor to increase revenues while maintaining control of the future use of the land. The airport sponsor should be aware of the restrictions placed on these activities by 14 CFR Part 139, wildlife hazard concerns, and grant assurances.

1205. BENEFIT COST ANALYSIS

a. The FAA *Airports Benefit Cost Analysis (BCA)*, December 1999, states that when possible, airport sponsors should conduct a BCA as part of the development of the master plan. FAA utilizes BCA to assess aviation user benefits of a proposed investment against its estimated costs. In an October 24, 2011, Federal Register notice, FAA stipulated that formal BCA is required for projects that enhance capacity at an airport and are expected to receive $10 million or more in AIP discretionary funds or apply for a Letter of Intent. If the airport sponsor decides to submit a complete BCA to the FAA, more detailed cost estimates for a project(s) will be required than those prepared for the facilities implementation plan.

1206. DOCUMENTATION GUIDELINES

a. The documentation of this chapter in the master plan should clearly show the financial feasibility of the CIP.

b. The financial planning chapter of a master plan for a large commercial service airport will be more complex than one for a low activity general aviation airport. In this chapter, planners should consider the funding plan for the CIP, historical cash flow, existing and future debt service requirements, airline rates and charges, airline cost per enplanement, concession revenues per enplanement, and pro forma cash flow analysis.

c. If a BCA has been prepared during the master plan process, it should be included as an Appendix to the master plan report.

d. Documentation provided to the airport should include any electronic spreadsheets and files to facilitate planners in modifying the financial plan on an as-needed basis.

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Appendix A Glossary

Advisory Circular – External publications issued by the FAA consisting of non-regulatory material providing for the recommendations relative to a policy, and guidance and information relative to a specific aviation subject.

Aircraft Approach Category – An alphabetic classification of aircraft based upon 1.3 times the stall speed in a landing configuration at their maximum certified landing weight.

Aircraft Operation – The landing, takeoff or touch-and-go procedure by an aircraft on a runway at an airport.

Aircraft Rescue and Fire Fighting – A facility located at an airport that provides emergency vehicles, extinguishing agents, and personnel responsible for minimizing the impacts of an aircraft accident or incident.

Airfield – The portion of an airport that contains the facilities necessary for the operation of aircraft.

Airplane Design Group – A Roman numerical classification of aircraft based upon wingspan.

Airport Authority – A quasi-governmental public organization responsible for setting the policies governing the management and operation of an airport or system of airports under its jurisdiction.

Airports Capital Improvement Plan – The planning program used by the Federal Aviation Administration to identify, prioritize and distribute funds for airport development and the needs of the National Airspace System to meet specified national goals and objectives.

Airport Improvement Program – A program authorized by the Airport and Airway Improvement Act of 1982 that provides funding for airport planning and development.

Airport Layout Plan – A scaled drawing of the existing and planned land and facilities necessary for the operation and development of an airport.

Airport Master Plan – The airport's concept of the long-term development and use of an airport's land and facilities.

Airport Obstruction Chart – A scaled drawing depicting the Federal Aviation Regulation (FAR) Part 77 surfaces, a representation of objects that penetrate these surfaces, runway, taxiway, and ramp areas, navigational aids, buildings, roads and other detail in the vicinity of an airport.

Airport Reference Code – A coding system used to relate airport design criteria to the operational and physical characteristics of the airplanes intended to use the airport. It is a two character code consisting of the aircraft approach category and the airplane design group.

Airport Reference Point – The latitude and longitude of the geometric center of the runway system at an airport.

Airport Sponsor – The entity that is legally responsible for the management and operation of an airport including the fulfillment of the requirements of laws and regulations related thereto.

Airside – The portion of an airport that contains the facilities necessary for the operation of aircraft.

Air Taxi – An aircraft operated under an air taxi operating certificate for the purpose of carrying passengers, mail, or cargo for revenue in accordance with FAR Part 121 and FAR Part 135.

Airport Traffic Control Tower – A facility in the terminal air traffic control system located at an airport which consists of a tower cab structure and an associated instrument flight rules room, if radar equipped, that uses ground-to-air and air-to-ground communications and radar, visual signaling, and other devices to provide for the safe and expeditious movement of terminal area air traffic in the airspace and airports within its jurisdiction.

Annual Service Volume (ASV) – The number of annual operations that can reasonably be expected to occur at the airport based on a given level of delay.

Approach Surface – An imaginary obstruction limiting surface defined in FAR Part 77 which is longitudinally centered on an extended runway centerline and extends outward and upward from the primary surface at each end of a runway at a designated slope and distance based upon the type of available or planned approach by aircraft to a runway.

Apron – A specified portion of the airfield used for passenger, cargo or freight loading and unloading, aircraft parking, and the refueling, maintenance and servicing of aircraft.

Avigation Easement – A contractual right or a property interest in land over which a right of unobstructed flight in the airspace is established.

Based Aircraft – The general aviation aircraft that use a specific airport as a home base.

Benefit Cost Analysis (BCA) – An analysis of the benefit, cost, and uncertainty associated with a project or action. A formal BCA is required for capacity projects of $10 million or more in AIP discretionary funds.

Building Restriction Line – A line defined by specifications and displayed on an airport layout plan beyond which airport buildings must not be located to limit building proximity to aircraft movement areas.

Capital Improvement Plan – The individual airport sponsor's plan for the capital needs of the airport, typically including their planned capital funding sources. This is separate and distinct from the FAA's Airports Capital Improvement Plan (ACIP), which is the FAA's plan for how to allocate AIP funds. .

Cargo Service Airport – An airport served by aircraft providing air transportation of property only, including mail, with an annual aggregate landed weight of at least 100,000,000 pounds.

Citizen's Advisory Committee (CAC) – A group of individuals that weigh recommendations against community goals, values, and needs.

Commercial Service Airport – A public airport providing scheduled passenger service that enplanes at least 2,500 annual passengers.

Computer Aided Design – Software that is commonly used for drafting architectural and engineering drawings.

Conical Surface – An imaginary obstruction-limiting surface defined in FAR Part 77 that extends from the edge of the horizontal surface outward and upward at a slope of 20 to 1 for a horizontal distance of 4,000 feet.

Critical (Design) Aircraft – The most demanding aircraft with at least 500 annual operations that operates, or is expected to operate, at the airport.

Crosswind – A wind that is not parallel to a runway centerline or to the intended flight path of an aircraft.

Crosswind Component – The component of wind that is not parallel to the runway centerline or the intended flight path of an aircraft.

Discretionary Funds – Federal grant funds that may be awarded to an airport based upon designation by the Secretary of Transportation or Congress to meet a specified national priority such as enhancing capacity, safety or security, or mitigating noise.

Displaced Threshold – An aircraft runway landing area that begins at a point on the runway other than the designated physical end of the runway.

Enplanement – The boarding of a passenger, cargo, freight or mail on an aircraft at an airport.

Entitlement – Federal funds for which a commercial service airport may be eligible based upon its annual passenger enplanements.

Environmental Assessment – An environmental analysis performed pursuant to the National Environmental Policy Act to determine whether an action would significantly affect the environment and thus require a more detailed environmental impact statement.

Environmental Impact Statement – A document required of federal agencies by the National Environmental Policy Act for major projects or legislative proposals affecting the environment. It is a tool for decision-making describing the positive and negative effects of a proposed action and citing alternative actions.

Federal Aviation Regulations – The general and permanent rules established by the executive departments and agencies of the Federal Government for aviation, which are published in the Federal Register. These are the aviation subset of the Code of Federal Regulations.

Finding of No Significant Impact (FONSI) – A public document prepared by a Federal agency that presents the rationale why a proposed action will not have a significant effect on the environment and for which an environmental impact statement will not be prepared.

Fixed Base Operator – A business enterprise located at on airport that provides services to pilots including aircraft rental, training, fueling, maintenance, parking, and the sale of pilot supplies.

General Aviation – The segment of aviation that encompasses all aspects of civil aviation except certified air carriers and other commercial operators such as airfreight carriers.

General Aviation Airport – An airport that supports air service primarily for general aviation purposes.

Geographic Information System (GIS) – A GIS is a computer system capable of capturing, storing, analyzing, and displaying geographically referenced information according to location. It is a technology that manages, analyzes, and disseminates geographic data.

Global Positioning System – A satellite based navigational system that provides signals in the cockpit of aircraft defining aircraft position in terms of latitude, longitude and altitude.

Ground Access – The transportation system on and around the airport that provides access to and from the airport by ground transportation vehicles for passengers, employees, cargo, freight, and airport services.

Horizontal Surface– An imaginary obstruction-limiting surface defined in FAR Part 77 that is specified as a portion of a horizontal plane surrounding a runway located 150 feet above the established airport elevation. The specific horizontal dimensions of this surface are a function of the types of approaches existing or planned for the runway.

Instrument Flight Rules – Procedures for the conduct of flight in weather conditions below Visual Flight Rules weather minimums. The term IFR is often also used to define weather conditions and the type of flight plan under which an aircraft is operating.

Instrument Meteorological Conditions – Meteorological conditions expressed in terms of specific visibility and ceiling conditions that are less than the minimums specified for visual meteorological conditions.

Itinerant Operations – Operations by aircraft that leaves the local airspace.

Landside – The portion of an airport that provides the facilities necessary for the processing of passengers, cargo, freight, and ground transportation vehicles.

Local Operations – Aircraft operations performed by aircraft that are based at the airport and that operate in the local traffic pattern or within sight of the airport, that are known to be departing for or arriving from flights in local practice areas within a prescribed distance from the airport, or that execute simulated instrument approaches at the airport.

Military Operations – Aircraft operations that are preformed in military aircraft.

National Airspace System – The network of air traffic control facilities, air traffic control areas, and navigational facilities throughout the U.S.

National Environmental Policy Act (NEPA) – Federal legislation that establishes environmental policy for the nation. It requires an interdisciplinary framework for federal agencies to evaluate and disclose environmental impacts and contains procedures to ensure that federal agency decision makers take environmental factors into account.

National Plan of Integrated Airport Systems – The national airport system plan developed by the Secretary of Transportation on a biannual basis for the development of public use airports to meet national air transportation needs.

Navigational Aid – A facility used as, available for use as, or designed for use as an aid to air navigation.

Operation – The landing, takeoff or touch-and-go procedure by an aircraft on a runway at an airport.

Passenger Facility Charge (PFC) – The collection of PFC fees for every enplaned passenger at commercial airports controlled by public agencies to be used to fund FAA-approved projects that enhance safety, security, or capacity; reduce noise; or increase air carrier competition.

Peak Hour (PH) – An estimate of the busiest hour in a day. This is also known as the design hour.

Planning Activity Level (PAL) – Selected activity levels that may trigger the need for additional facilities or improvements.

Primary Airport – A commercial service airport that enplanes at least 10,000 annual passengers.

Primary Surface – An imaginary obstruction limiting surface defined in FAR Part 77 that is specified as a rectangular surface longitudinally centered about a runway. The specific dimensions of this surface are a function of the types of approaches existing or planned for the runway.

Record of Decision (ROD) – A public document that reflects the FAA's final decision, rationale behind that decision, and commitments to enforce and monitor mitigation.

Regression Analysis – A statistical technique that seeks to identify and quantify the relationships between factors associated with a forecast.

Reliever Airport – General aviation airports in major metropolitan areas that provide pilots with attractive alternatives to using congested hub airports.

Runway – A defined rectangular area at an airport designated for the landing and taking-off of an aircraft.

Runway Gradient – The ratio of the change in elevation divided by the length of the runway expressed as a percentage.

Scope – The document that identifies and defines the tasks, emphasis and level of effort associated with a project or study.

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System Of Airports Reporting (SOAR) – The FAA Office of Airports integrated database that contains airport planning, development, and financial information.

Technical Advisory Committee (TAC) – A group of individuals that provide input on technical issues.

Terminal Area Forecast – The official forecast of aviation activity, both aircraft and enplanements, at FAA facilities. This includes FAA-towered airports, federally contracted towered airports, non-federal towered airports, and many non-towered airports.

Terminal Instrument Procedures – Published flight procedures for conducting instrument approaches to runways under instrument meteorological conditions.

Transient Operations – Operations by aircraft that are not based at a specified airport.

Transitional Surface – An imaginary obstruction-limiting surface defined in FAR Part 77 that extends outward and upward at right angles to the runway centerline and the runway centerline extended at a slope of 7 to 1 from the sides of the primary and approach surface.

Uncontrolled Airport – An airport without an air traffic control tower at which the control of Visual Flight Rules traffic is not exercised.

Visual Flight Rules – Procedures for the conduct of flight in weather conditions above Visual Flight Rules (VFR) weather minimums. The term VFR is often also used to define weather conditions and the type of flight plan under which an aircraft is operating.

Visual Meteorological Conditions – Meteorological conditions expressed in terms of specific visibility and ceiling conditions which are equal to or greater than the threshold values for instrument meteorological conditions.

Wide Area Augmentation System – An enhancement of the Global Positioning System that includes integrity broadcasts, differential corrections, and additional ranging signals for the purpose of providing the accuracy, integrity, availability, and continuity required to support all phases of flight.

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Appendix B Useful Reference Materials

1. FAA ADVISORY CIRCULARS

Most of these Advisory Circulars are available for viewing and/or printing on the FAA website at http://www.faa.gov/regulations_policies/advisory_circulars/. See the most recent versions.

70/7460-1 Obstruction Marking and Lighting. Describes the FAA standards for marking and lighting structures to promote safety.

90-66 Recommended Standard Traffic Patterns and Practices for Aeronautical Operations at Airports without Operating Control Tower. Calls attention to regulatory requirements and recommended procedures for aeronautical operations at airports without operating control towers. It recommends traffic patterns and operational procedures for aircraft, lighter than air, glider, parachute, rotorcraft, and ultra-light vehicle operations where such use is not in conflict with existing procedures in effect at those airports.

90-98 Simultaneous Closely Spaced Parallel Operations at Airports Using Precision Runway Monitor (PRM) Systems. Notify pilots and operators about the establishment of specific air traffic procedures to conduct flight operations into airports identified for simultaneous closely-spaced parallel approaches using PRM systems.

150/5020-1 Noise Control and Compatibility Planning for Airports. Provides general guidance for noise control and compatibility planning for airports. Provides specific guidance for preparation of airport noise exposure maps and airport noise compatibility programs by airport sponsors for submission under FAR Part 150 and the Aviation Safety and Noise Abatement Act of 1979.

150/5060-5 Airport Capacity And Delay. Explains how to compute airport capacity and aircraft delay for airport planning and design.

150/5100-14 Architectural, Engineering, and Planning Consultant Services for Airport Grant Projects. Provides guidance for airport sponsors in the selection and employment of architectural, engineering, and planning consultants under Federal Aviation Administration airport grant programs.

150/5100-17 Land Acquisition and Relocation Assistance for Airport Improvement Program Assisted Projects. Provides guidance to sponsors of airport projects developed under the Airport Improvement Program to meet the requirements of the Uniform Relocation Assistance and Real Property Acquisition Act of 1970 (PL 91-646, as amended) and the regulations of the Office of the Secretary of Transportation, 49 CFR Part 24.

150/5100-19 Guide for Airport Financial Reports Filed by Airport Sponsor. Provides airport sponsors with guidance for complying with the airport financial reporting requirements required by 49 USC §47107(a)(15).

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150/5190-4 A Model Zoning Ordinance to Limit Height of Objects around Airports. Provides a model zoning ordinance to be used as a guide to control the height of objects around airports.

150/5190-7 Minimum Standards for Commercial Aeronautical Activities. Provides basic information about the FAA's recommendations on commercial minimum standards and related policies.

150/5200-30 Airport Winter Safety and Operations. Provides guidance to assist airport owners/sponsors in the development of an acceptable airport snow and ice control program and to provide guidance on appropriate field condition reporting procedures.

150/5200-31 Airport Emergency Plan. Provides guidance for the preparation of emergency plans at civil airports.

150/5200-33 Hazardous Wildlife Attractants On or Near Airports. Provides guidance on locating certain land uses having the potential to attract hazardous wildlife to or in the vicinity of public-use airports.

150/5200-34 Construction or Establishments of Landfills Near Public Airport. Contains guidance on complying with new Federal statutory requirements regarding the construction of establishment of landfills near public airports.

150/5210-15 Airport Rescue and Firefighting Station Building Design. Provides standards and guidance for planning, designing, and constructing and airport rescue and firefighting station.

150/5220-18 Buildings for Storage and Maintenance of Airport Snow and Ice Control Equipment and Materials. Provides guidance for site selection, design and construction of buildings used to store and maintain airport snow and ice control equipment and materials.

150/5300-7 FAA Policy on Facility Relocations Occasioned by Airport Improvements or Changes. Reaffirms the aviation community of the FAA policy governing responsibility for funding relocation, replacement and modification to air traffic control and air navigation facilities that are made necessary by improvements or changes to the airport.

150/5300-9 Predesign, Prebid, and Preconstruction Conferences for Airport Grant Projects. Provides guidance for conducting predesign, prebid, and preconstruction conferences for projects funded under the FAA airport grant program.

150/5300-13 Airport Design. Contains the FAA's standards and recommendations for airport design.

150/5300-14 Design of Aircraft Deicing Facilities. Provides standards, specifications, and guidance for designing aircraft deicing facilities.

150/5300-15 Use of Value Engineering for Engineering and Design of Airport Grant Projects. Provides guidance for the use of value engineering in airport projects funded under

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the FAA's Airport Grant Program. This Advisory Circular should be used by sponsors of airport development projects considering the application of value engineering to projects involving grant funds.

150/5320-5 Airport Drainage. Provides guidance for engineers, airport managers, and the public in the design and maintenance of airport drainage systems.

150/5320-6 Airport Pavement Design and Evaluation. Provides guidance to the public for the design and evaluation of pavement at civil airports.

150/5325-4 Runway Length Requirements for Airport Design. Provides design standards and guidelines for determining recommended runway lengths.

150/5340-1 Standards for Airport Markings. Contains the FAA standards for markings used on airport runways, taxiways, and aprons.

150/5340-18 Standards for Airport Sign Systems. Contains the FAA standards for the siting and installation of signs on airport runways and taxiways.

150/5360-9 Planning and Design of Airport Terminal Facilities at Non-Hub Locations. Provides guidance material for the planning and design of airport terminal buildings at non-hub locations.

150/5360-12 Airport Signing and Graphics. Provides guidance on airport related signs and graphics.

150/5360-13 Planning and Design Guidelines for Airport Terminal Facilities. Provides guidelines for the planning and design of airport terminal buildings and related access facilities.

150/5390-2 Heliport Design. Provides recommendations and standards for heliport design.

150/5395-1 Seaplane Bases. Provides guidance to assist operators in planning, designing, and constructing seaplane base facilities.

2. FAA ORDERS

Virtually all of the following orders are available for viewing and/or printing on the FAA website at http://www.faa.gov/regulations_policies/orders_notices/.

1050.1 Environmental Impacts: Policies and Procedures. Provides policies and procedures to ensure FAA compliance with the provisions of the National Environmental Policy Act.

5050.4 National Environmental Policy Act (NEPA) Implementing Instructions for Airport Projects. FAA Airports guidance for complying with NEPA. Provides instructions and guidance for the preparation and processing of environmental assessments, findings of no significant impact, and environmental impact statements for airport development proposals and other airport activities.

5090.3 (current version) Field Formulation of the National Plan of Integrated Airport Systems. This order contains instructions for FAA Regional offices in the formulation and maintenance of the NPIAS computer database and on the preparation of the Secretary of Transportation's biennial Report to Congress.

5500.1 Passenger Facility Charge. Provides guidance and the processes to be used by FAA personnel in administering the Passenger Facility Charge program.

5100.38 Airport Improvement Program Handbook. Provides guidance and sets forth policies and procedures for the administration of the Airport Improvement Program by the FAA.

5100.39 Airports Capital Improvement Plan. Prescribes the development of the national Airports Capital Improvement Program that serves as the primary planning tool for systematically identifying, prioritizing and assigning funds to critical airport development and associated capital needs for the National Airspace Program.

8260.3 United States Standard for Terminal Instrument Procedures (TERPS). Contains criteria for instrument approach and departure procedures.

3. FEDERAL AVIATION REGULATIONS

Virtually all of the following Federal regulations addressing aviation are available for viewing and/or printing on the FAA website at http://www.faa.gov/regulations_policies/faa_regulations/.

14 CFR Part 77 Safe, Efficient Use, and Preservation of the Navigable Airspace

14 CFR Part 150 Airport Noise Compatibility Planning

14 CFR Part 158 Passenger Facility Charges (PFCs)

4. TRANSPORTATION SECURITY REGULATIONS

The following Transportation Security Regulations (TSRs) are available for viewing and/or printing on the Transportation Security Administration website at www.tsa.gov/.

TSR Part 1540 Civil Aviation Security: General Rules. Definitions and rules for all aspects of aviation.

TSR Part 1542 Airport Security. Requirements for airport security programs including establishment of secured areas, air operation areas, security identification display areas, and access control systems. Also describes requirements related to Security Directives.

TSR Part 1544 Aircraft Operator Security: Air Carriers and Commercial Operators. Applies primarily to operators holding certificates for scheduled and charter passenger operations. Details the requirements for security program and screening of passengers and property.

TSR Part 1546 Foreign Air Carrier Security. Discusses security and screening requirements.

TSR Part 1548 Indirect Air Carrier Security. Describes requirements for indirect carriers such as freight forwarders.

TSR Part 1550 Aircraft Security Under General Operating and Flight Rules. Applies to operation of all other aircraft such as general aviation aircraft.

5. SECURITY-RELATED PUBLICATIONS

Recommended Security Guidelines for Airport Planning, Design, and Construction. (Formerly DOT/FAA/AR-00-52, June 2001. TSA Revised May 2011.) Available from TSA at http://www.tsa.gov/aviation-security-advisory-committee.

Security Guidelines for General Aviation Airports (Information Publication A-001), Transportation Security Administration, May 2004. Available from TSA at http://www.tsa.gov/stakeholders/security-directives.

Integrated Security System Standard for Airport Access Control. (RTCA DO-230C, June 2011) Available from RTCA at http://www.rtca.org.

6. FAA REPORTS

Airport Noise Compatibility Planning (ANCP) Toolkit, FAA Office of Environment and Energy (http://www.faa.gov/about/office_org/headquarters_offices/apl/noise_emissions/planning_toolkit/).

FAA Airport Benefit-Cost Analysis Guidance, Office of Aviation Policy and Plans (http://www.faa.gov/airports/aip/bc_analysis/).

FAA Guide to the Best Practices for Environmental Impact Statement Management, FAA Office of Airport Planning and Programming (http://www.faa.gov/airports/environmental/eis_best_practices/).

Forecasting Aviation Activity by Airport, GRA, Inc., FAA Office of Aviation Policy and Plans (APO-110), July 2001. (http://www.faa.gov/data_research/aviation_data_statistics/).

Intermodal Ground Access to Airports: A Planning Guide, Federal Highway Administration, Intermodal Division and Federal Aviation Administration, National Planning Division, Report No. DOT/FAA/PP/96-3. Available from National Technical Information Service as PB97-189484 (www.ntis.gov).

National Plan of Integrated Airport Systems (NPIAS), FAA Office of Airport Planning and Programming, Airport Planning and Environmental Division (http://www.faa.gov/airports/planning_capacity/npias/).

Terminal Area Forecast (TAF), FAA Office of Aviation Policy and Plans (http://www.faa.gov/about/office_org/headquarters_offices/apl/aviation_forecasts/).

Recycling, Reuse and Waste Reduction at Airports: A Synthesis, FAA Office of Airport Planning and Programming, July 2013.

7. GENERAL AIRPORT PUBLICATIONS

Aerodromes, Annex 14 to the Convention on International Civil Aviation, International Civil Aviation Organization.

Aerodromes, Annex 14 Vol. 1 Aerodrome Design and Operations to the Convention on International Civil Aviation, International Civil Aviation Organization.

Aerodromes, Annex 14 Vol. 2 Heliports to the Convention on International Civil Aviation, International Civil Aviation Organization.

Aerodrome Design Manual, Part 1, Runways, International Civil Aviation Organization.

Aerodrome Design Manual, Part 2, Taxiways, Aprons and Holding Bays, International Civil Aviation Organization.

Airport Engineering, Ashford and Wright, John Wiley & Sons, Inc.

Airport Finance, Ashford and Moore, Van Nostrand Reinhold, Inc.

Airport Planning and Management, Smith, Odegard and Shea, Wadsworth Publishing Company.

Airport Planning and Management, Wells and Young, McGraw-Hill Companies, Inc.

Airport Planning Manual, Part 1 – Master Planning, International Civil Aviation Organization.

Airport Planning Manual Part 2 – Land Use and Environmental Control, International Civil Aviation Organization.

Airport Systems Planning, Design, and Management, deNeufville and Odoni, McGraw-Hill Companies, Inc.

Airport Terminals Reference Manual, International Air Transportation Association.

Construction of Visual and Instrument Flight Procedures (PANS-OPS), International Civil Aviation Organization.

Environmental Protection, Annex 16 to the Convention on Civil Aviation, International Civil Aviation Organization.

Planning and Design of Airports, Horonjeff and McKelvey, McGraw-Hill Companies, Inc.

STOL Port Manual, International Civil Aviation Organization.

8. AIRPORT COOPERATIVE RESEARCH PROGRAM (ACRP) REPORTS

The following ACRP publications are available for viewing and/or printing on the Transportation Research Board website at http://www.trb.org/Publications/PubsACRPPublications.aspx.

ACRP Synthesis 2, Airport Aviation Activity Forecasting, Airport Cooperative Research Program, March 31, 2007.

ACRP Synthesis 10, Airport Sustainability Practices, Airport Cooperative Research Program, October 23, 2008.

ACRP Synthesis 33, Airport Climate Adaptation and Resilience, Airport Cooperative Research Program, June 18, 2012.

ACRP Synthesis 37, Lessons Learned from Airport Safety Management Systems Pilot Studies, Airport Cooperative Research Program, August 6, 2012.

ACRP Report 1, Safety Management Systems for Airports, Airport Cooperative Research Program, September 4, 2007.

ACRP Report 4, Ground Access to Major Airports by Public Transportation, Airport Cooperative Research Program, July 9, 2008.

ACRP Report 10, Innovations for Airport Terminal Facilities, Airport Cooperative Research Program, February 26, 2009.

ACRP Report 23, Airport Passenger-Related Processing Rates Guidebook, Airport Cooperative Research Program, November 11, 2009.

ACRP Report 25, Airport Passenger Terminal Planning and Design, Volume 1: Guidebook, Airport Cooperative Research Program, April 7, 2010.

ACRP Report 25, Airport Passenger Terminal Planning and Design, Volume 2: Spreadsheet Models and User's Guide, Airport Cooperative Research Program, March 18, 2010.

ACRP Report 30, Reference Guide on Understanding Common Use at Airports, Airport Cooperative Research Program, May 26, 2010.

ACRP Report 35, Planning for Offsite Airport Terminals, Airport Cooperative Research Program, September 27, 2010.

ACRP Report 40, Airport Curbside and Terminal Area Roadway Operations, Airport Cooperative Research Program, December 2, 2010.

ACRP Report 55, Passenger Level of Service and Spatial Planning for Airport Terminals, Airport Cooperative Research Program, October 13, 2011.

ACRP Report 56, Handbook for Considering Practical Greenhouse Gas Emission Reduction Strategies for Airports, Airport Cooperative Research Program, January 7, 2012.

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ACRP Report 77, Guidebook for Developing General Aviation Airport Business Plans, Airport Cooperative Research Program, November 15, 2012.

ACRP Report 79, Evaluating Airfield Capacity, Airport Cooperative Research Program, December 17, 2012.

ACRP Report 80, Guidebook for Incorporating Sustainability into Traditional Airport Projects, Airport Cooperative Research Program, November 4, 2012.

ACRP Report 82, *Preparing Peak Period and Operational Profiles – Guidebook*, Airport Cooperative Research Program, February 15, 2003.

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Appendix C List of Potential Stakeholders

Users and tenants:

- Commercial service and charter airlines
- Air cargo airlines and operators
- Corporate aircraft owners
- Freight forwarders
- Airline ground handling and catering companies
- Airline maintenance base operators
- Aircraft fueling and storage operators
- General aviation aircraft owners
- General aviation hangar owners and tenants
- Fixed base operators
- Air tour operators
- Air ambulance and rescue operators
- Flight schools
- Flying clubs/Civil Air Patrol
- Military users and tenants of the airport
- Rental car operators
- Parking lot operators
- Concessionaires
- Ground transportation companies (taxi, shuttle bus, limousine operators, and public transportation)

Groups and individuals from within the airport sponsor's organization:

- Airport board or similar executive group
- Airport executive director or manager
- Airport executive management team (operations director, engineering/planning director, maintenance director, finance director, and others.
- Airport senior line operations and line maintenance personnel
- Airport senior fire and safety officer

FAA personnel from these offices:

- Airports District Office
- Air Traffic Organization
- Airport Traffic Control Tower
- Regional Technical Operations
- System Management Office
- Regional Flight Standards
- Runway Safety Office
- Flight Procedures Office
- NAS Implementation Center
- Flight Service Station

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Resource agencies and other governmental units with regulatory or review authority:

- Federal Inspection Service agencies
- Federal agencies with responsibility for affected resources
- Transportation Security Administration
- Federal, state, regional, and local air quality, water quality, and wildlife agencies
- Representatives of local political jurisdictions
- State, regional, metropolitan and local planning office
- State, regional, metropolitan and local transportation and land use planning agencies
- State aeronautics office
- State and local environmental regulatory authorities
- Native American and Alaska Native tribes and pueblos
- On-airport law enforcement agency
- Local fire and police departments

Other interested groups:

- Private land owners and developers
- Airport hotel and business associations
- Local tourism board or authorities
- Chamber of Commerce and other economic development groups
- Citizens and others with a strong economic or social tie to the airport
- Non-government organizations
- Neighborhood associations
- Traveling public

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Appendix D Consideration of Environmental Factors in Airport Master Planning

1. INTRODUCTION

This appendix presents practices that can be applied to airport master planning to make the planning process and subsequent environmental analysis more efficient. A more integrated and efficient planning and decision making process should reflect environmental values, result in less delay, and avoid conflicts in the completion of needed airport development.

The consideration of environmental factors by Federal agencies is delineated in Council on Environmental Quality (CEQ) regulations implementing the National Environmental Policy Act (NEPA), reference 40 CFR 1500.5(a) and 1501.2. The NEPA statute and CEQ regulations require all Federal agencies to integrate the NEPA process with other planning at the earliest possible time. This is to ensure that planning and decisions reflect environmental values. CEQ regulations require Federal agencies to "utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision making which may have an impact on man's environment." Doing this early in the planning process helps incorporate environmental factors in project planning and development, avoid delays and second-guessing later in the NEPA process, and can head off potential conflicts.

This guidance is not intended to make master planning a part of the NEPA process. It is to ensure that supportable and consistent planning data and environmental, technical, economic and other planning analyses are provided for use in FAA decision making. Airport planning provides the basis for a project's purpose and need in environmental evaluation and the alternatives that the FAA will carry into its NEPA analysis.

a. **Applicability**

This guidance is primarily intended for complex and controversial undertakings such as capacity projects at larger airports. It may also be helpful in the planning of projects smaller in scope, and should be reviewed prior to starting an airport master plan that has the potential to impact resources. It is intended for airport development professionals (e.g., planners, environmental specialists, project managers, engineers) employed by airport sponsors, consultants, FAA and state agencies.

b. **Clarifications**

When this document refers to airport planners it means individuals engaged in airport planning, no matter their specific job title. When the document refers to environmental specialists it means individuals engaged in environmental analysis or review, no matter their specific job title. When the document refers to engineers it means individuals engaged in engineering, no matter their specific job title. The term "project (program) manager" is not used, although it is recognized that many organizations employ "project managers" in airport planning, environmental analysis, and engineering.

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2. PRACTICE AND PROCESS

a. **Background**

This section summarizes the key points of NEPA as it relates to project planning. When the term "agency" is used, it refers to Federal agency.

CEQ regulations require agencies to identify environmental effects and values in adequate detail so they can be compared to economic and technical analyses. Agencies must study, develop and describe appropriate alternatives to recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources. To permit these, environmental analysis must be integrated early in planning along with other planning analyses.

In cases where actions are planned by private applicants or other non-Federal entities before Federal involvement, agencies must ensure that 1) policies or designated staff are available to advise potential applicants of studies or other information likely required for later Federal action; 2) applicants are aware of the Federal agencies need to consult with State and local agencies and Indian tribes and with interested private persons and organizations when its own involvement is reasonably foreseeable; and 3) the Federal agency commences its NEPA process at the earliest possible time after the project proponent or sponsor has completed planning sufficient to allow environmental impact analysis.

b. **Timing of Airport Planning and Environmental Analysis**

Environmental considerations are integral to the planning process, and should be identified and evaluated at the same time as economic and technical analyses and prior to commencing preparation of an EA or EIS. This will assist in defining those projects that are reasonably foreseeable, and therefore may be subject to the NEPA analysis.

Airport planning should be complete or nearly so when the airport sponsor begins preparing its EA or FAA begins preparing its EIS. If a sponsor selects a recommended alternative and completes its planning process before beginning environmental processing, the FAA is not obligated to select that recommended alternative as its preferred alternative. FAA will select its preferred alternative during the NEPA process. Starting preparation of a NEPA document immediately after the completion of planning may improve the likelihood that aviation forecast and modeling data remain current during the environmental analysis process. In the case of an Environmental Impact Statement, the start of the NEPA process would be considered the issuance of a Notice of Intent to prepare the EIS. For an Environmental Assessment, the start of the NEPA process (for the purpose of this guidance) should be considered the earlier of: the approval of an AIP grant for the EA; or the initiation of the environmental resource agency/community coordination. The airport sponsor and FAA should always complete (and document) the following prior to commencing preparation of an EIS or EA.

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- Local aviation forecasts that are current and approved by the FAA
- Justification of the scope and timing of the project's planned facilities based on airport planning, operational requirements, and design standards
- Identification and consideration of all reasonable planning alternatives (within the sponsor's or FAA's jurisdiction), eliminating (and documenting) those not meeting the stated aeronautical need. If an alternative does potentially meet the aeronautical need, but is not considered reasonable, provide sufficient explanation as to why not
- Tentative identification of studies or other information likely required for later Federal action, as well as appropriate State and local agencies, Indian tribes, private persons and organizations likely to have an interest in the project.

Also, it is important that only those alternatives that have aeronautical utility (i.e., can be built and operated safely) are forwarded for analysis under NEPA. Sometimes it may be necessary to conduct airspace reviews (during planning) of various planning alternatives to determine their aeronautical utility and safety.

Additional discussion on forecasts, project requirements and alternative analysis is included below.

c. **Local Government and Community Involvement in Airport Planning**

Establishing long-term cooperative consultation between the airport sponsor and local, regional, and state governments and planning organizations with land use, zoning, and surface access responsibilities can improve consistency between community and airport planning. This consultation makes it easier to gain local agreement on individual airport projects. Such consultation enables the airport sponsor to voice its interests in future land compatibility, obstruction control, and surface transportation access. Local planners benefit by learning airport needs for the promotion of community access and the local economy. Information on the future airport expansion and improvement contained in an airport master plan should be incorporated into the development of comprehensive land use plans to ensure land use compatibility around airports.

History shows that successful projects involve the community early in airport master planning. This involvement educates and informs local citizens, and allows them to provide constructive input to guide the airport sponsor and FAA decision-making. Community involvement during master planning should include information on the airport's proposed project, its aviation need (problem) and possible alternative ways to address the need. Input should be solicited and questions from the community should be encouraged. Input received should be considered and timely responses to questions raised should be provided. The community includes the public and local government in the vicinity of the airport, including Native American Tribal Organizations, metropolitan and regional planning organizations, and airport businesses and tenants.

Community involvement in the planning process, as described above, should ensure community awareness of proposed action prior to commencing preparation of an EA or

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EIS. The NEPA process should not be the first time that the community hears about the proposal. Community involvement during planning is a natural part of good planning and is separate and distinct from public comment under NEPA. In developing a community involvement process, the airport sponsor should strike a balance between soliciting meaningful participation and keeping the master plan process on track. Depending on the scope of the project and the degree of anticipated controversy, community involvement specialists may need to become involved. Early involvement is critical to getting a sense of perspective about where and how the airport fits within the community and what concerns the community has and why. Such involvement may be needed to develop local agreement, which is often necessary to secure support from local officials for the project. A public consultation plan should be prepared identifying the type, number, and timing of public forums and identifying the public sector(s) having concerns about the proposal. It is essential that the community be advised as to its role throughout the planning process.

AIP grant assurances require that airport sponsors take appropriate action, to the extent reasonable, to restrict the use of land adjacent to airports to activities consistent with normal airport operations. Zoning authorities should be strongly encouraged to put height limits in place to protect current and planned aircraft approaches. The airport sponsor should also emphasize to local officials the importance of zoning for airport-compatible land use, including noise sensitive areas and airport design surfaces, so that the airport may remain a transportation asset to the community. In addition, frequent coordination with local, regional, and state organizations responsible for surface transportation planning helps ensure that improvements in airport capacity are matched with commensurate improvements in surface access.

The "FAA Community Involvement Manual", document FAA-EE-90-03, should be consulted to help develop a community involvement program. This manual can be accessed in the "Communications Tools" section of the Airport Noise Compatibility Planning Toolkit at http://www.faa.gov/about/office_org/headquarters_offices/aep/planning_toolkit/. There are a number of State DOTs that have similar guidance. Additional discussion on community involvement can be found under the "Community Consultation" section of the FAA document "Best Practices Guide-Initiative 6 to May 2001 Report to Congress on Streamlining the Environmental Process," which is available at http://www.faa.gov/airports/environmental/.

d. **FAA Role in Airport Master Planning**

The primary responsible party for airport master planning is the airport sponsor. However, early coordination with FAA is essential to efficient project management. FAA is involved in airport planning to ensure that proposed airport development is safe, has utility, and meets airport design standards, and identifies obvious issues that could become environmental concerns. Additionally, if Airport Improvement Program (AIP) money is needed, FAA ensures that the scope and timing of the proposed development is appropriate for Federal financial participation. FAA carries out these requirements through the following actions:

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- Review and approval of local aviation forecasts and design aircraft
- Review and approval of site selection studies
- Review and approval of airport layout plans, including completion of airspace studies*
- Review the adequacy of the planning alternative analysis for incorporation into the subsequent NEPA Analysis
- Review of capital improvement planning

**Refer to the FAA "Community and Environmental Needs Division" memorandum of November 18, 2003 for guidance on how to treat airport layout plans that show proposed development that is undergoing NEPA analysis and review.*

When AIP funds are involved, FAA ensures that the scope of a project's planned facilities is justified.

Finally, FAA reviews master plan work scopes where the airport sponsor is seeking AIP or Passenger Facility Charge (PFC) funds to help finance preparation of the master plan.

e. **EIS Conceptual Engineering**

For complex projects, it is often necessary to conduct some engineering analysis to enable the airport sponsor and/or the FAA to make planning and environmental decisions. To avoid prejudging alternatives, the engineering should be limited to that necessary to:

- Define alternatives within FAA or sponsor's jurisdiction for environmental analysis
- Assess aeronautical safety and utility of these alternatives
- Comparatively analyze environmental impacts
- Inform the public and environmental resource agencies
- Identify potential environmental mitigation during the environmental analysis, and
- Determine the order of magnitude of project costs

Early in the planning process, airport planners, environmental specialists and engineers should agree to the appropriate extent of conceptual engineering effort, the responsible parties for the effort, and the schedule for accomplishing such engineering.

f. **Facility Requirements/Purpose and Need**

"Facility requirements" is a term used in airport planning to describe the development required to address documented airport needs. The analysis and documentation supporting the facility requirements are normally contained in an airport master plan. This analysis needs clearly to define the aviation problem(s) and why the airport needs to solve it (them). Care should be taken that the facility requirements are not so narrowly defined so that they unreasonably point to a single solution.

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"Purpose and Need" is a NEPA term that refers to a section of an environmental document, which describes the purpose of, and need for, the proposed Federal action. The problem to be addressed is identified (need), the requested Federal action is noted as a possible solution to the problem (purpose), and information that supports that a problem exists is presented (or referenced).

FAA planners should ensure that the "Facility Requirements" analysis provides information sufficient to provide a basis for describing the "Purpose and Need" for proposed Federal actions. FAA environmental professionals can be helpful in determining the adequacy of "Facility Requirements" documentation for use in defining purpose and need under NEPA.

As always, projects that are seeking AIP or PFC funding need to be justified on aeronautical grounds. Economic development should not be a basis for justifying AIP or PFC assistance.

g. **Alternative Analysis**

The master plan is not intended to establish a single project alternative for NEPA evaluation, but to identify alternatives that meet the airport's aeronautical needs. It may establish the sponsor's recommended alternative. It should consider all reasonable alternatives normally within the jurisdiction of the airport sponsor and the FAA, including operational alternatives. Those alternatives that do not meet the planning need (i.e., facility requirements), or are not feasible or prudent, should be dismissed, with the reasons for dismissal appropriately documented in the master plan. This should include reasons why planning did not consider alternatives that avoided or minimized environmental areas or conditions contributing to extensive mitigation. The master plan should also document the justification for any sponsor recommended alternative, as well as the reasons for not recommending others. An airspace review (i.e., NRA case) of alternatives may be necessary to determine if alternatives can be built and are operationally feasible before their environmental impacts are evaluated in a NEPA document. A preliminary cost estimate, similar in detail to cost estimates normally prepared in master plans and depicted in capital improvement plans, should be developed for all alternatives to be analyzed in a NEPA document.

Unlike the master plan, a NEPA document may consider alternatives that are not within the jurisdiction of the airport sponsor or the FAA, such as the development of alternative airports or the use of other transportation modes. As stated previously, NEPA requires Federal agencies to "utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and decision making which may have an impact on man's environment." In preparing NEPA documents, FAA typically considers environmental impact, cost and other factors in its alternative analysis. It is possible that during the NEPA process, FAA will identify alternatives not previously considered during the planning process. Airport planners should be called upon to advise the environmental specialists on whether additional alternatives developed during the NEPA process meet planning needs and can be constructed and operated safely and efficiently.

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h. **Currency of Aviation Forecasts**

A master plan uses locally generated aviation forecasts as the basis for identifying the need and timing of airport development. FAA reviews the local forecasts and forecast methodology to ensure that they are appropriate and that they provide an adequate justification for the scope, and timing of proposed airport development. Local forecasts developed in a master plan can be adopted for use in an environmental impact analysis provided that the FAA has approved them. FAA field offices can approve local forecasts if the forecast methodology is reasonable and the forecast is consistent with the FAA's Terminal Area Forecast (TAF) or differences with the TAF have been resolved by the FAA. Consistency with the TAF is discussed in separate planning guidance provided by the FAA, which also has special provisions for FAA approval of forecasts at lower activity general aviation airports. It is important that the local forecasts of aircraft activity and enplanements used in NEPA analysis were recently approved by the FAA and, in the process of approving these forecasts, the most recent published TAF was used for comparison.

It is also important that the same forecasts be used throughout project formulation including project justification, airfield modeling, environmental analysis, and benefit cost analysis. Where updated forecasts are approved, or separate forecasting used, the new information should be clearly distinguished from a prior forecast.

3. TOOLS

a. Planning Team

Airport planners, environmental specialists, and engineers should work together throughout the project formulation and development processes. This includes from the beginning of the master plan, through the preparation of an EA or EIS and subsequent decision document, as well as through design and construction to ensure that mitigation measures are properly accomplished. The team should first meet with the airport sponsor during pre-planning to insure that important issues are identified early. The extent of planner, environmental specialist and engineer involvement would depend on project complexity and controversy.

When preparation of an EA or EIS is anticipated, environmental specialists should take an active role in determining the adequacy of the master plan's alternative analysis. This ensures that the master plan and the EA or EIS are consistent in data and in rationale on the reasonable alternatives. In addition, the environmental specialist may assist the airport planner in reviewing the scope of work for the master plan relative to the scope of environmental work to be performed, provide guidance on developing the overview of sensitive environmental features, assist in developing and conducting the public consultation and help in deciding that project justification is sufficient to develop a strong and clear purpose and need statement in the EA or EIS. The airport sponsor's planning consultant should include, as part of their team, a specialist familiar with NEPA and environmental analysis requirements for airport projects.

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The airport planner's role in the NEPA process is to: review the planning aspects of the NEPA document for accuracy and consistency with airport planning, design standards, operational requirements and land use compatibility considerations; review the adequacy of discussions of technological solutions that address the purpose and need; and review the consistency of the local aviation forecasts with the TAF and with the aviation forecasts used in other project documents.

During the planning and environmental analysis, engineers should provide conceptual engineering, if required, provide "planning-level" project cost estimates, and if required determine the constructability of various alternatives, including construction sequencing and timing.

b. Overview of Environmental Features

A recommended practice for the airport sponsor/consultant is to prepare an "overview of environmentally sensitive features of an airport" as part of the airport master plan. Such an overview can help an airport sponsor judge if the airport's environmental features affect day-to-day decisions as well as longer-term development strategies. The level of detail would be airport specific as determined by the sponsor and its consultant after consultation with the local FAA Airports office. The overview should include readily available information including:

- Items known from prior environmental and planning documents, and from the expertise of environmental professionals, community planners, and resource agencies
- Items that can be easily seen during a walking survey of the airport or off-airport area.
- Information from various types of available environmental resource maps of the airport area.

The findings from the literature search and airport walking survey should be documented.

This overview is not intended to substitute for the "Affected Environment" section of an EA or EIS. It is intended to provide information on, or an overview of obvious environmental resources, which could affect the planning of the proposed development. Therefore, it is not necessary to carry out substantial investigations such as cultural resource studies or wetland delineations in order to define all environmental factors needed for master planning. If an airport sponsor wishes to conduct such detailed studies under a master plan, the local FAA Airports office should be consulted. If concurrence is provided the FAA should work with the sponsor to ensure that the selected consultant is, or selected consultants are, experienced in the discipline(s) being investigated.

The overview should also include easily seen and/or readily documented environmental features and resources beyond the airport property line. The area of consideration beyond the property line will vary depending on the environmental resource. For noise, it may be set at the DNL 65 dB contour, while for coastal zones it may stretch well beyond the airport boundaries. A text of the environmental overview should be included in the master plan report together with appropriate graphics. Sensitive features may also be

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shown on a separate ALP drawing. Attachment 3 to this appendix lists suggested features that may be included as parts of the overview. Information on land uses or features that surround the airport and whether or not such uses are zoned compatibly with aviation uses should also be included. If not zoned compatible, the reasons should be investigated and the sponsor should provide information on its efforts to promote aviation-compatible land uses near the airport.

The master plan report and/or ALP should note the source (i.e., May 2004 walking survey, NWI maps, 2003 regional land use plan, etc.) of flood plain, wetland, or cultural resource information that is presented. This will ensure that resource data that is approximate, such as wetland locations based on a recent walk-through or older NWI maps, is identified as approximate data. For example, a possible ALP note for wetlands is: "Wetland areas bounded by dashed lines are based on an April 2003 NWI map and March 19, 2004 walk-through of the area. The walk-through suggests wetland presence due to standing water and certain vegetation. The NEPA analysis will include a wetland delineation of that area, if alternatives under consideration are located in this area."

This information will alert planning and environmental reviewers of the possible presence of sensitive resources. As a result, further investigation of these areas during the NEPA process may be necessary. Project layout or design could change based on further information obtained during preparation of a NEPA document. The master plan report and/or ALP should clearly note if the environmental overview uses data more than five years old or of questionable quality.

An environmental overview may provide the information necessary to: 1) determine if additional alternatives are needed to avoid or minimize the impact of the project to sensitive environmental features; 2) define future environmental coordination and analysis work to develop more thorough work scope for an EA or EIS and; 3) properly understand the anticipated costs of preliminary/final design as well as how best to estimate the cost of and schedule for the NEPA process.

c. Electronic Data Information Systems

Airport sponsors typically have a great deal of spatial information to support infrastructure development. Although electronic data sources such as Computer Aided Design (CAD), Geographic Information Systems (GIS), and other spatial data formats are common, there is often redundancy due to a lack of knowledge about existing data sets and differing standards. A common data source is more efficient in the identification of environmentally sensitive features such as residential areas, parks, and hazardous waste sites and in quantifying the potential impact of various proposed development. Therefore, airport sponsors should consider developing an electronic spatial data standard for all planning, environmental, and engineering documents. Although GIS is typically used to implement such a standard, also consider other options that may offer more ready access and basic skill requirements should be considered.

Notwithstanding the above, hard copies of ALP drawings and master plan reports shall be provided for FAA retention and use.

d. If AIP or PFC funds are to be used for the development of a GIS or similar format, the scope of the GIS development should be discussed with the FAA to ensure that eligibility is established. See FAA Order 5100.38, *Airport Improvement Program Handbook*. The GIS should be in a standard format that is consistent with the data formats used by the surrounding units of government.

4. NEPA DOCUMENTS OF OTHER FEDERAL AGENCIES

An airport development proposal may require that a Federal agency other than the FAA is the lead agency for NEPA purposes. Although this usually involves development by a military entity, such as the Air National Guard, it may involve such actions as a roadway funded by the Federal Highway Administration, an apron/hangar for the U.S. Forest Service, or a recreational area by the Army Corps of Engineers. The master plan should recognize such proposed development, ensuring that the proposal is an appropriate use for the airport, and that the FAA's Federal actions associated with the development, such as ALP revisions or approval of land releases, are adequately addressed in the lead agency's NEPA document. The master plan should also describe how the proponent's potential plans would ultimately affect the airport sponsor's proposed airport development. FAA's environmental role will vary from project to project. Normally the FAA will be either a joint lead agency, or at least a cooperating agency during the preparation of an environmental document. The "other" Federal agency should come to FAA early to see what we look for in our environmental documentation and processing. Some laws, such as Section 4(f) of the DOT Act, or policies, such as noise, apply to FAA but not to other agencies, and must be addressed in the NEPA document.

ATTACHMENT D-1
ENVIRONMENTAL OVERVIEW FOR MASTER PLAN PURPOSES

Air Quality Classification	Attainment Area:	
	Non-attainment Area:	
	List Pollutant(s):	
	Maintenance Area:	
	List Pollutant(s):	
Aquatic Concerns	Bay:	Wetlands:
	Creek:	Floodplains:
	Ocean:	Potable Water Aquifer:
	Pond:	Sole-Source Aquifer:
	Habitat-Endangered/Threatened Species:	
	Drinking Water Reservoir:	
	Pond:	Streams:
	River:	Other:
Terrestrial Concerns	Contaminated Areas:	
	Habitat-Endangered/Threatened Species:	
	Farmland, Prime and Unique:	
	Hazardous Material Storage Areas:	
	Landfills:	
Cultural	Historic Properties*:	
	Archeological Resources:	
	Parks:	
	Wildlife Refuges:	
	Residential Areas:	
	Noise Sensitive Areas (church, school, hospital, etc.):	
	Other:	
Land Use Concerns	Traffic:	
	Noise:	
	Lighting:	
	Obstructions:	
	Environmental Justice:	
	Zoning:	

*Historic resources should be identified but the planning consultants should be wary of disclosing some information due to the sensitivity certain parties (i.e., Native Americans, Native Hawaiians) attach to these resources. A discussion should be held with these parties to decide if maps should include the identified resources.

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Appendix E Airport Site Selection

1. GENERAL

a. In some cases, the planner may determine that the existing airport cannot be expanded to meet the future demand and that a new or supplemental airport may be needed. In these cases, it may be necessary to look for a new airport site. The process of identifying, evaluating, and selecting new airport sites is very similar to the process of identifying, evaluating, and selecting alternatives for individual airport projects.

b. A comparison of new airport sites with the alternative of continuing operations at the existing airport may have been completed during the master plan alternatives analysis. In these cases, the site selection process may be a refinement of the preliminary investigation of alternatives for the existing airport. A site selection process may also result from the need for a new airport identified in a regional or state system plan study.

c. Prior to initiating a detailed site selection study, the planner should collect data that justifies the need for the new airport and its viability. Community and user support, along with an airport sponsor's legal and financial capability to build and operate the new airport, should be documented. There should be a consensus among Federal, state and local officials as to the intended role of the new airport, at least to the extent that its requirements and size can be determined. However, this does not rule out changing the role of the new airport as a result of the study findings.

2. SITE SELECTION PROCESS OVERVIEW

a. The scope of the site selection process will vary with the size, complexity, and role of the new airport. The sophistication of the analysis and the complexity of the decision making process can vary greatly.

b. If the planner determines that a new airport is needed, he or she should develop initial criteria that can be used to evaluate different sites and determine if each can function as an airport and meet the needs of the community and users. Such criteria might include that the sites are within a certain radius of the existing airport and are of a minimum size in terms of land area.

c. Once the preliminary sites have been identified, a screening process should be applied to each site. An evaluation of all potential sites that meet the initial criteria should be conducted, screening out those with the most obvious shortcomings. Screening factors might include topography, natural and man-made obstructions, airspace, access, environmental impacts, and development costs. If any sites are eliminated from further consideration, thorough documentation of the reasons for that decision is encouraged and will facilitate the subsequent environmental processing.

d. The remaining potential sites should then undergo a detailed comparison using comprehensive evaluation criteria. While the criteria will vary, the following should be considered:

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- Operational Capability – the site should provide the operational capability necessary to serve the defined role of the airport and the needs of its users
- Capacity potential – If the new airport is needed to provide additional capacity, the capability of the site in providing long-term capacity growth is important.
- Ground access – an important factor is the ability of the users to get to and from the airport easily and in a timely manner.
- Development Costs – Simple cost estimates are useful in determining the financial feasibility of building a new airport.
- Environmental Consequences – The potential environmental impacts associated with a new site may be critical to gaining approval.

Consistency with Area-wide Planning – The site should be consistent with regional and local land use and transportation plans.

e. While a weighting of the evaluation criteria and a weighted ranking of the alternative sites may be used in selecting a site, planners should use caution in applying this technique since it introduces an element of subjectivity into the analysis. They should focus on providing decision makers with information on the various sites in a manner that is understandable and unbiased.

f. The site finally selected will be subject to the review of alternatives as required under NEPA. Planners will then make commitments on specific environmental mitigation measures. The selection will probably receive scrutiny through public information sessions, review by policy and advisory committees, and at public hearings.

g. The planner should not assume that the site selection process described here conclusively results in the selection of the best site. Overriding political, jurisdictional, institutional, environmental or financial considerations may influence the decision makers' choice of sites.

3. SITE APPROVAL

a. Once a site is selected, timely site approval by the airport sponsor who will develop and operate the new airport is important. Such action will permit the prompt establishment of the airport while the decision-making apparatus is politically and organizationally intact.

b. If state and regional approval procedures have been followed, an important next step will be Federal approval. FAA approval is necessary if planners intend to seek Federal financial assistance under the AIP for follow-on planning or site acquisition and development. Such approval must be supported by appropriate environmental documentation, public hearings, and evidence that the proposed airport will be reasonable consistent with local planning. The FAA must approve the selected site before any additional planning work is started.

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c. Regardless of the applicability of Federal financial assistance in the planning or development of the airport, the FAA will advise on the aeronautical suitability of the site after having studied the site from the standpoint of airspace use as required by 14 CFR Part 157, *Notice of Proposed Construction, Alteration, Activation, and Deactivation of Airports.*

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Appendix F Airport Layout Plan Drawing Set

The following list provides general guidelines in preparing the Airport Layout Plan drawing set. The individual sheets that comprise the Airport Layout Plan drawing set will vary with each planning effort. During the project scoping activities, planners must determine which sheets will be necessary. Refer to ARP Standard Operating Procedure (ARP SOP) 2.00, Standard Procedure for FAA Review and Approval of Airport Layout Plans (ALPs), and ARP SOP 3.00, Standard Operating Procedure (SOP) for FAA Review of Exhibit 'A' Airport Property Inventory Maps, for specific ALP review and approval procedures and additional preparation guidance.

1. AIRPORT LAYOUT DRAWING

a. Sheet size – Minimum 24" x 36"

b. Scale –Within a range of 1" = 200' to 1" = 600'

c. North Arrow

1) True and Magnetic North

2) Year of the magnetic declination

3) Orient drawing so that north is to the top or left of the sheet

d. Wind Rose

1) Data source and the time period covered

2) Include individual and combined coverage for:

a) Runways with 10.5 knots crosswind

b) Runways with 13 knots crosswind

c) Runways with 16 knots crosswind

d) Runways with 20 knots crosswind

e. Airport Reference Point (ARP) – Existing and ultimate, with latitude and longitude to the nearest second based on NAD 83

f. Ground contours at intervals of 2' to 10', lightly drawn

g. Elevations (Existing and Ultimate to 1/10 of a foot)

1) Runway

2) Displaced thresholds

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3) Touchdown zones

4) Intersections

5) Runway high and low points

6) Roadways where they intersect the RPZ edges and extended runway centerlines

7) Structures on Airport – If a terminal area plan is not included indicate structure top elevations on this sheet.

h. Building limit lines – Show on both sides of the runways and extend to the airport property line or RPZ.

i. Runway Details (Existing and Ultimate)

1) Runway Design Code (RDC) designation

2) Dimensions – length and width within the outline of the runway

3) Orientation – Runway end numbers and true bearing to the nearest 0.01 degree

4) Markings

5) Lighting – Threshold lights only

6) Runway Safety Areas – Dimensions may be included in the Runway Data Table

7) End Coordinates – Note near end (existing and ultimate) of each runway end, to nearest 0.01 second

8) Displaced threshold coordinates, to the nearest 0.01 second

9) Declared Distances – For each runway direction if applicable. Identify any clearway/stopway portions in the declared distances

j. Taxiway Details (Existing and Ultimate)

1) Taxiway Design Group (TDG) designation

2) Taxiway widths and separation from the runway centerlines, parallel taxiway, aircraft parking, and objects

k. RPZ Details (Existing and Ultimate)

1) Dimensions

2) Type of property acquisition (fee or easement)

l. Approach slope ratio (20:1; 34:1; 50:1)

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m. Airport Data Table (Existing and Ultimate)

1) Airport elevation (MSL)

2) Airport Reference Point data

3) Mean maximum temperature

4) Airport Reference Code for each runway

5) Design Aircraft for each runway or airfield component

n. Runway Data Table (Existing and Ultimate)

1) Percent effective gradient

2) Percent wind coverage

3) Maximum elevation above MSL

4) Runway length and width

5) Runway surface type

6) Runway strength

7) FAR Part 77 approach category

8) Approach type

9) Approach slope

10) Runway lighting (HIRL, MIRL, LIRL)

11) Runway marking

12) Navigational and visual aids

13) RSA dimensions

o. Title and Revision Blocks

1) Name and location of the airport

2) Name of preparer

3) Date of drawing

4) Drawing title

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5) Revision block

6) FAA disclaimer

7) Approval block

p. Other

1) Standard legend

2) Existing and Ultimate airport facility and building list

3) Location map

4) Vicinity map

2. AIRPORT AIRSPACE DRAWING

a. Plan view of all FAR Part 77 surfaces, based on ultimate runway lengths

b. Small scale profile views of existing and ultimate approaches

c. Obstruction data tables, as appropriate

d. Sheet size – same as the airport layout drawing

e. Scale – 1" = 2,000' for the plan view; 1" = 1,000' for approach profiles; and 1" = 100' (vertical) for approach profiles

f. Title and revision blocks - same as the airport layout drawing

g. Approach Plan View Details

1) USGS for base map

2) Show runway end numbers

3) Include 50' elevation contours on all slopes

4) Show the most demanding surfaces with solid lines and others with dashed lines

5) Identify top elevations of objects that penetrate any of the surfaces. For objects in the inner approach, add note "See inner portion of the approach plan view for close-in obstructions."

6) For precision instrument runways, show balance of 40,000' approach on a separate sheet.

h. Approach Profile Details

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1) Depict the ground profile along the extended runway centerline representing the composite profile, based on the highest terrain across the width and along the length of the approach surface.

2) Identify all significant objects (roads, rivers, and so forth) and top elevations within the approach surfaces, regardless of whether or not they are obstructions

3) Show existing and ultimate runway ends and FAR Part 77 approach slopes.

3. INNER PORTION OF THE APPROACH SURFACE DRAWING

a. Large scale plan views of inner portions of approaches for each runway, usually limited to the RPZ areas

b. Large scale projected profile views of inner portions of approaches for each runway, usually limited to the RPZ areas

c. Interim stage RPZs when plans for interim runways extensions are firm and construction is expected in the near future

d. Sheet size – Same as Airport Layout drawing

e. Scale – Horizontal 1" = 200'; vertical 1" = 20'

f. Title and revision blocks – Same as for Airport Layout drawing

g. Plan View Details

1) Aerial photos for base maps

2) Numbering system to identify obstructions

3) Depict property line

4) Identify, by numbers, all traverse ways with elevations and computed vertical clearance in the approach

5) Depict the existing and ultimate physical end of the runways. Note runway end number and elevation

6) Show ground contours, lightly drawn

h. Profile View Details

1) Depict terrain and significant items (fences, roadways, and so forth)

2) Identify obstructions with numbers on the plan view

3) Show roads and railroads with dashed lines at edge of the approach

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i. Obstruction Table Details

1) Depict terrain and significant items (fences, roadways, and so forth)

2) Identify obstructions with numbers on the plan view

3) Show roads and railroads with dashed lines at edge of the approach

4) Prepare a separate table for each RPZ

5) Include obstruction identification number and description, the amount of the approach surface penetration, and the proposed disposition of the obstructions

4. TERMINAL AREA DRAWING

The need for this drawing will be decided on a case-by-case basis. For small airports, where the Airport Layout drawing is prepared to a fairly large scale, a separate drawing for the terminal area may not be needed.

a. Large scale plan view of the area or areas where aprons, buildings, hangars, and parking lots are located

b. Sheet size – Same as Airport Layout drawing

c. Scale – Range of 1" = 50' to 1" = 100'

d. Title and revision blocks – Same as for Airport Layout drawing

e. Building Data Table – To list structures and show pertinent information about them. Include space and columns for:

1) A numbering system to identify structures

2) Top elevation of structures

3) Existing and planned obstruction markings

5. LAND USE DRAWING

a. Include all land uses (industrial, residential, and so forth), on and off the airport, to at least the 65 DNL contour

b. Sheet size – Same as Airport Layout drawing

c. Scale – Same as the Airport Layout drawing

d. Title and revision blocks – Same as for Airport Layout drawing

e. Aerial base map

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f. Legend (symbols and land use descriptions)

g. Identify public facilities (such as schools, parks, and others)

h. Drawing details – Normally limited to existing and future airport features (i.e., runways, taxiways, aprons, RPZs, terminal buildings and navigational aids)

6. RUNWAY DEPARTURE SURFACES DRAWING

a. Large scale plan views of departure surfaces for each runway end that is designated primarily for instrument departures. The one-engine inoperative (OEI) obstacle identification surface (OIS) should be shown for any departure runway end supporting air carrier operations.

b. Large scale projected profile views of departure surfaces for each runway that is designated primarily for instrument departures.

c. Sheet size – Same as Airport Layout drawing

d. Scale – Horizontal 1" = 1000'; vertical 1" = 100' (runway departure surfaces); and Scale – Horizontal 1" = 2000'; vertical 1" = 100' (OEI obstacle identification surfaces)

e. Title and revision blocks – Same as for Airport Layout drawing

j. Plan View Details

7) Aerial photos for base maps

8) Numbering system to identify obstructions

9) Depict property line, including easements

10) Identify, by numbers, all traverse ways with elevations and computed vertical clearance in the departure surface

11) Depict the existing and ultimate physical end of the runways. Note runway end number and elevation

12) Show ground contours, lightly drawn

k. Profile View Details

4) Depict terrain and significant objects, including fences, roadways, rivers, structures, and buildings.

5) Identify obstructions with numbers on the plan view

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6) Show roads and railroads with dashed lines at edge of the departure surface

l. Obstruction Table Details

6) Depict terrain and significant objects, including fences, roadways, rivers, structures and buildings

7) Identify obstructions with numbers on the plan view

8) Show roads and railroads with dashed lines at edge of the approach

9) Prepare a separate table for each departure surface

10) Include obstruction identification number and description, the amount of the departure surface penetration, and the proposed disposition of the obstructions

7. AIRPORT PROPERTY MAP

a. Sheet size – Same as Airport Layout drawing

b. Scale – Same as the Airport Layout drawing

c. Title and revision blocks – Same as for Airport Layout drawing

d. Legend

e. Data Table

1) A numbering or lettering system to identify tracts of land

2) The date the property was acquired

3) The Federal aid project number under which it was acquired

4) Type of ownership (fee, easement, federal surplus, and others)

f. Show existing and future airport features (i.e., runways, RPZs, navigational aids and so forth) that would indicate a future aeronautical need for airport property.

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Exhibit M

2014 Annual Progress Report,
LAX Master Plan Mitigation Monitoring & Reporting Program

A photocopy of Exhibit M on the CD enclosed with the November 15, 2016 comment letter on the Draft EIR submitted by Shute, Mihaly & Weinberger LLP is available for review at LAWA Environmental Programs Group, One World Way, Room 218, Los Angeles California, 90045, or electronically on LAWA's website at: http://www.lawa.org/ourLAX/AnnualReports.aspx?id=8067.

Exhibit N

LAX Final Noise Exposure Map Report
(August 2015)

A photocopy of Exhibit N on the CD enclosed with the November 15, 2016 comment letter on the Draft EIR submitted by Shute, Mihaly & Weinberger LLP is available for review at LAWA Environmental Programs Group, One World Way, Room 218, Los Angeles California, 90045, or electronically on LAWA's website at: http://lawa.org/LAXPart150.aspx?id=9625.

Exhibit O

LAX Master Plan Addendum (excerpt)

2.6. ANCILLARY FACILITIES - ALTERNATIVE D

The ancillary facilities in Alternative D are depicted on **Figure 2.6-1** and summarized below. All areas are based on facility footprint measurements.

2.6.1 AIRLINE MAINTENANCE

Alternative D would require the removal of the existing American Airlines, TWA and US Airways maintenance complexes on the west side of the airport (551,000 square feet of building space). Two existing facilities on the west side of the airport and south of World Way West would be retained (612,000 square feet of building space). One existing 164,000-square foot facility would be retained on the west side of the airport, north of World Way West. In addition, two new facilities totaling approximately 300,000 square feet would be located on the west side of the airport, south of World Way West. Five existing maintenance facilities totaling 292,000 square feet located south of Century Boulevard, east of Sepulveda, and west of Airport Boulevard, would be retained. Total airline maintenance facilities would encompass 1,368,000 square feet of building space in Alternative D.

2.6.2 GROUND RUN-UP ENCLOSURE (GRE)

Alternative D would include two new 90,000-square foot Ground Run-up Enclosures (GRE) at the airport. A GRE is a three-sided open-air structure designed to absorb noise associated with aircraft engine tests. A GRE would reduce noise impacts to surrounding communities impacted by aircraft engine tests. A GRE is capable of reducing the standard noise signature by 15 to 18 dBA. Today, all run-ups are conducted on the ramp area near the maintenance facilities. **Figure 2.6-2** depicts a typical GRE. One GRE would be located on the west side of the airport, south of World Way West and east of the airline maintenance complex. An additional GRE would be located on the east side of the airport, south of the existing Delta airlines maintenance facility.

2.6.3 FUEL FARM

The overall fuel farm site footprint would be reduced from 662,000 square feet to 591,000 square feet to accommodate the north airfield modifications for Alternative D, described in Section 2.1. The fuel farm would retain its existing capacity and would remain at its existing location on the west side of the airport, north of World Way West. On-site modifications would be required due to the redevelopment of the north airfield complex.

2.6.4 LOS ANGELES WORLD AIRPORTS ADMINISTRATION AND MAINTENANCE

LAWA administrative offices would remain in the existing 42,000-square foot facility at the former airport traffic control tower and the 40,000-square foot facility on the west side of the airport, north of World Way West.

The existing LAWA maintenance yard and storage facilities are comprised of three complexes totaling 135,000 square feet. These facilities would remain in the existing location on the west side of the airport, north of World Way West. These buildings serve maintenance, storage and administrative functions. Consolidation of these facilities and/or reconfiguration may be considered as the existing facilities reach the end of their useful life.

2.6.5 FEDERAL AVIATION ADMINISTRATION (FAA)

The FAA tower facility would not be affected by Alternative D. The existing 13,000-square foot air traffic control tower is located in the CTA. A security-screening checkpoint would be developed on the Park One site, adjacent to Terminal 1, for employees within the CTA. FAA employees may be required to screen through this facility prior to gaining access to the FAA tower.

2.6.6 FLIGHT KITCHENS

The two existing flight kitchens located north of Imperial Highway and east of Main Street would remain, providing a total of 98,000 square feet. Existing airline catering located in airline maintenance facilities would be relocated and incorporated into the new airline maintenance facilities. In addition, there are currently 90,000 square feet of flight kitchens located off-airport which would not be affected by Alternative D.

2.6.7 GROUND SERVICE

Six existing ground handling facilities, totaling 158,000 square feet, located north of Imperial Highway and east of Main Street, would be retained. Additional ground handling functions would be located on the apron and in the terminal area.

2.6.8 GENERAL AVIATION

Alternative D would accommodate two general aviation facilities that encompass 265,000 square feet. The existing 144,000-square foot facility north of Imperial Highway and east of Sepulveda Boulevard would remain. A new 121,000-square foot facility would be located north of Imperial Highway and west of Sepulveda Boulevard.

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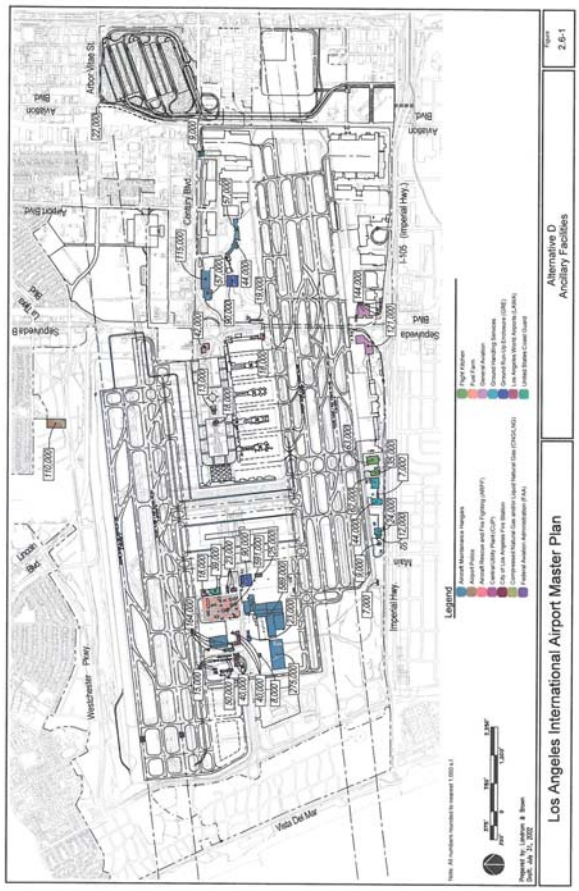

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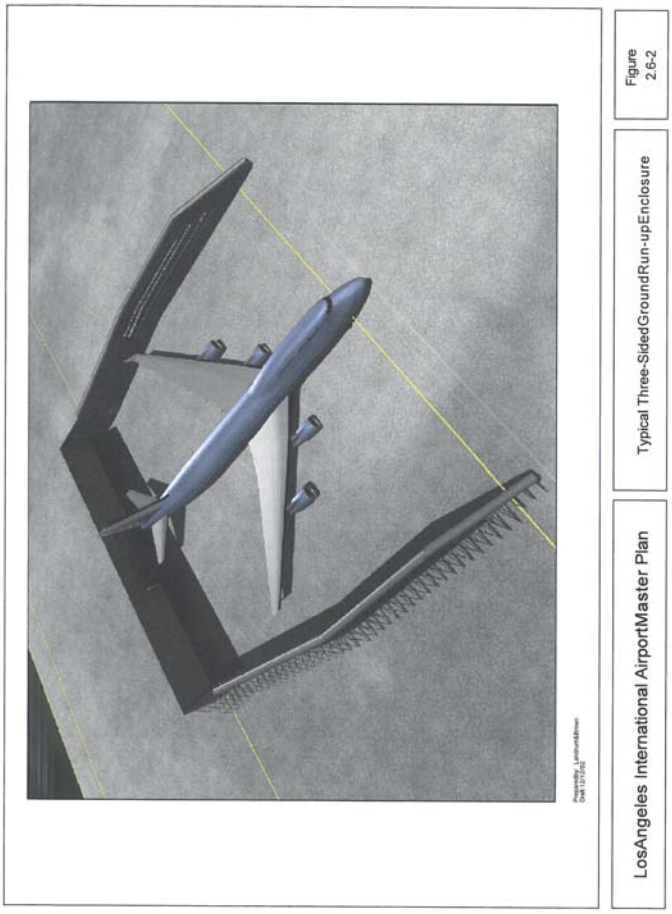

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2.6.9 AIRCRAFT RESCUE AND FIREFIGHTING (ARFF)

Fire Station 51 and 80 would be expanded to accommodate the future ARFF requirements and increase response capabilities at LAX. Fire Station 51, located west of Sepulveda Boulevard and south of Century Boulevard, would remain at its current location and be expanded from 9,000 square feet to 18,000 square feet. Fire Station 80 would be expanded from 14,000 square feet to 18,000 square feet and relocated due to the construction of the new Taxiways S and Q. This new ARFF facility would be located east of the fuel farm and north of the U.S. Coast Guard facility. The 9,000-square foot Fire Station 95, at the southeast corner of Century Boulevard and International Road between Airport and Aviation Boulevards, would remain the same.

2.6.10 AIRPORT POLICE

The existing LAWA police headquarters, located on West 96th Street and west of Sepulveda Boulevard, would be removed and relocated to accommodate Alternative D.

A new 110,000-square foot airport police headquarters facility would be built at the northwest corner of Westchester Parkway and Emerson Avenue to accommodate the increased staffing levels due to enhanced safety and security requirements. The new facility would provide convenient access to the airport. The new facility would be located across the street from the newly relocated City of Los Angeles Fire Station No. 5 to facilitate easy communication between members of the emergency response team. The Police Lost and Found function would be located in the new LAWA police headquarters facility. Additional police substations would be located in both terminal and landside facilities to further enhance public safety, security, and police responsiveness.

2.6.11 UNITED STATES COAST GUARD

The existing 39,000-square foot U.S. Coast Guard facility, including the apron and helicopter landing area, would remain in its existing location on the west side of the airport, north of World Way West.

2.6.12 CENTRAL UTILITY PLANT

The existing 18,000-square foot central utility plant would remain in its current location within the CTA. A security-screening checkpoint would be developed on the Park One site, adjacent to Terminal 1, for employees within the CTA. Central utility plant employees may be required to screen through this facility prior to gaining access to the plant.

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2.6.13 COMPRESSED NATURAL GAS/LIQUID NATURAL GAS FACILITIES

The existing LAWA Liquefied Natural Gas/Compressed Natural Gas (LNG/CNG) facility would remain in its present location. It consists of a core facility of approximately 8,000 square feet located on an approximately 131,000-square foot (3-acre) site at 7350 World Way West. Access to the LNG/CNG facility would be controlled by a security checkpoint along World Way West adjacent to the new employee-parking garage.

The 22,000-square foot off-airport CNG facility, located south of 104th Street and east of Aviation Boulevard, would be removed and space would be provided for a new 22,000-square foot facility at the southeast corner of Arbor Vitae Street and Aviation Boulevard. Access to the new CNG facility would be controlled via the security monitoring systems along the GTC entrance roadway. A remote security gate may be developed on the entrance road to the facility to control access.

2.6.14 TRANSPORTATION SECURITY ADMINISTRATION (TSA)

Alternative D would accommodate and facilitate the needs and directives of the TSA at LAX. At this point, the requirements of the newly formed TSA are continually evolving. LAWA officials are currently working with the TSA to determine and accommodate the needs of the administration. Alternative D was designed to be flexible in accommodating all existing and future federal security requirements.

2.6.15 SUMMARY

A detailed list of all ancillary facilities and associated building area is provided in **Table 2.6-1**.

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Table 2.6-1

ALTERNATIVE D
BREAKDOWN OF ANCILLARY FACILITIES

1. Ground Handling Bldgs.		
1	9,000	sf.
2	12,000	sf.
3	24,000	sf.
4	44,000	sf.
5	7,000	sf.
6	62,000	sf.
Total	158,000	sf.
2. Flight Kitchen Bldgs.		
1	35,000	sf.
2	63,000	sf.
Total	98,000	sf.
3. Airport Police Bldg.		
1*	110,000	sf.
Total	110,000	sf.
4. General Aviation Bldgs.		
1	144,000	sf.
2	121,000	sf.
Total	265,000	sf.
5. Fire/Aircraft Rescue and Firefighting Bldgs.		
1 Fire Station	9,000	sf.
2 ARFF*	18,000	sf.
3 ARFF*	18,000	sf.
Total	45,000	sf.
6. Airline Maintenance Bldgs.		
1*	25,000	sf.
2*	275,000	sf.
3	23,000	sf.
4	164,000	sf.
5	589,000	sf.
6	57,000	sf.
7	115,000	sf.
8	44,000	sf.
9	57,000	sf.
10	19,000	sf.
Total	1,368,000	sf.
7. Central Utility Plant Bldg.		
1	18,000	sf.
		sf.
		sf.
		sf.
		sf.
Total	18,000	sf.
8. CNG/LNG Station		
1 (CNG)*	22,000	sf.
2 (LNG/CNG)	8,000	sf.
Total	30,000	sf.
9. Federal Aviation Administration (FAA) Bldg.		
1	13,000	sf.
Total	13,000	sf.
10. Fuel Farm		
1	591,000	sf.
Total	591,000	sf.
11. Ground Run-up Enclosure		
1*	90,000	sf.
2*	90,000	sf.
Total	180,000	sf.
12. Coast Guard Bldg.		
1	39,000	sf.
Total	39,000	sf.
13. LAWA Administration Facilities		
1	40,000	sf.
2	42,000	sf.
Total	82,000	sf.
14. LAWA Maintenance Facilities		
1	15,000	sf.
2	50,000	sf.
3	40,000	sf.
4	23,000	sf.
5	7,000	sf.
Total	135,000	sf.
Ancillary Facilities		
Total	3,132,000	sf.

* Proposed
Numbers rounded to nearest 1,000

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Exhibit P

In the Matter of Noise Variance Application for City of Los Angeles et al., Dept. of Transp. Case No. L2010041216

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5:12/23/2010
#37

BEFORE THE
DEPARTMENT OF TRANSPORTATION
STATE OF CALIFORNIA

In the Matter of the Noise Variance Application of: CITY OF LOS ANGELES; LOS ANGELES WORLD AIRPORTS (LOS ANGELES INTERNATIONAL AIRPORT), Applicant.	Case No. L2010041216

PROPOSED DECISION

This matter came regularly for hearing before Samuel D. Reyes, Administrative Law Judge, Office of Administrative Hearings, on December 1, 2010, in Los Angeles, California.

Raiyn Bain, Attorney at Law, represented Department of Transportation, Division of Aeronautics (Department).

Rosario Tobias, Deputy City Attorney, represented City of Los Angeles, Department of Airports, also known as Los Angeles World Airports (Airport Authority).

Thomas J. Faughnan, Principal Deputy County Counsel, County of Los Angeles, represented Intervenor County of Los Angeles (County).

Barbara E. Lichman, Attorney at Law, represented Intervenor City of Inglewood (Inglewood).

Gabe Ross, Attorney at Law, represented Intervenor City of El Segundo (El Segundo.)

Intervenor Mike Stevens (Stevens), a person who resides within the noise impact area of the Los Angeles International Airport (Airport or LAX), represented himself.

Airport Authority seeks a variance pursuant to California Code of Regulations (CCR), title 21, section 5051, in order to continue its operation of the Airport at a level that generates in excess of the regulatory-set level of aircraft noise. Airport Authority, County, El Segundo, and Inglewood stipulated that issuance of the variance, subject to agreed upon conditions, is in the public interest. They also agreed on the specific conditions of the variance. Stevens did not join in the stipulations, and sought a hearing.

On April 19, 2010, the Department issued the Notice of Informal Hearing and Statement of Issues (Statement of Issues). Stevens thereafter filed a statement containing issues that he sought to address at a full evidentiary hearing. The Airport Authority, County, El Segundo, and Inglewood filed objections to Stevens' request, primarily on relevancy grounds. On October 4, 2010, the Administrative Law Judge sustained the objections and concluded that the matter could proceed to an informal hearing pursuant to Government Code[1] section 11445.20, subdivision (a), as Stevens had not shown that there were disputed issues of material fact to warrant a full evidentiary hearing.

Documentary evidence was received at the hearing, and Stevens and other individuals who reside near the Airport commented on the proposed stipulations, the proposed conditions, and the impact of Airport noise on their daily lives. The matter was submitted for decision on December 1, 2010.

FACTUAL FINDINGS

1. Airport Authority filed a request for a noise variance pursuant to CCR, title 21, section 5051, on May 21, 2008. The variance is required because the Airport generates noise that impacts its neighbors.[2] On September 24, 2008, Stevens requested a hearing on the Airport Authority's application.

[1] All further statutory references are to the Government Code.

[2]The regulations, the California Noise Standards promulgated by the Department, require a noise variance before an airport with a "noise impact area" can operate. (CCR, tit. 21, § 5012.) The noise impact area is defined in terms of a community noise equivalent level (CNEL) of 65 decibels (dB). (*Ibid.*) The CNEL is derived from the average of all noise events over a 24-hour period, where greater weight is given to noise made during evening and nighttime periods. (CCR, tit. 21, § 5001, subd. (f).) If points around an airport where the 65 dB CNEL level is achieved on an annualized basis are joined, the resulting outline is the "noise impact boundary." (CCR, tit. 21, § 5001, subd. (l).) The "noise impact area" is the area within the noise impact boundary that is composed of incompatible land uses. (CCR, tit. 21, § 5001, subd. (k).) Incompatible land uses are defined as residences, schools, hospitals and convalescent homes, churches, synagogues, temples, and other places of worship, which the airport proprietor does not own or have an avigation easement for noise over; or which do not contain noise insulation or acceptable interior noise levels as defined in the regulations. (CCR, tit. 21, § 5014.)

2. The Airport is operating pursuant to a stipulated variance, which became effective June 21, 2005.

3. On August 31, 2009, the Airport Authority requested an informal hearing pursuant to sections 11445.10 et seq.

4. On April 19, 2010, the Department granted the Airport Authority's request, and on April 19, 2010, issued the Statement of Issues.

5. Stevens thereafter filed a statement containing issues that he sought to address at a full evidentiary hearing. The Airport Authority, County, El Segundo, and Inglewood filed objections to Stevens' request for a full evidentiary hearing, primarily on relevancy grounds, and reaffirmed their support for an informal hearing.

6. On October 4, 2010, the Administrative Law Judge denied Stevens' request, and concluded that the matter could proceed to an informal hearing pursuant to section 11445.10 et seq., as Stevens had not shown that there were disputed issues of material fact to warrant a full evidentiary hearing.

7. As stipulated by the parties, granting the noise variance, as conditioned, is in the public interest.

8. At the hearing, Stevens and other individuals who reside near the Airport, Joyce Alexander, Annie Franklin, Lawrence Haley, Al Jenkins, Pearly Johnson, and Marjorie Presley, presented oral comments on the proposed stipulations, the proposed conditions, and the impact of Airport noise on their daily lives, pursuant to section 11445.40.

LEGAL CONCLUSIONS

1. In reviewing variance applications, the Department must be guided by the underlying policy that the proprietor of each existing airport having a noise impact area is required to develop and implement programs to reduce the noise impact area of the airport to an acceptable degree in an orderly manner over a reasonable period of time. (CCR, tit. 21, § 5050.)

2. The Airport Authority has a number of options to reduce or eliminate the size of the noise impact area, including those listed in CCR, title 21, section 5037. For instance, it may encourage use of less noisy aircraft or departure flight paths and procedures to minimize noise in residential areas. It may also convert incompatible land uses to compatible ones through rezoning, acquisition of avigation easements for noise, application of acoustical insulation, or acquisition of property.

3. The Department may grant a variance if to do so would be in the public interest. (CCR, tit. 21, § 5053.). In making this public interest determination, the Department must consider the following: (a) the economic and technological feasibility of complying with the noise standards set by the regulations; (b) the noise impact should the variance be granted; (c) the value to the public of the services for which the variance is sought; and (d) whether the airport proprietor is taking good faith measures to the best of its ability to achieve the airport noise standards. (CCR, tit. 21, § 5053.) In this case, it is in the public interest to grant the noise variance, by reason of factual finding numbers 1 through 8.

ORDER

1. The variance granted herein shall be for a period of three years from the effective date of this order.

2. LAX shall continue to implement its Aircraft Noise Mitigation Program (ANMP). LAX, with the assistance of the affected jurisdictions, shall update the entire ANMP from time to time to ensure that it reasonably represents the mitigation and funding programs that are in place, being implemented, or proposed for future implementation. The ANMP shall be designed to ultimately fund the mitigation of all incompatible land uses within the noise impact boundary as defined in the State Noise Standards. LAX shall use its best efforts to complete the acoustic treatment portion of the total ANMP for all affected jurisdictions within nine years from the effective date of this decision, although local programs may progress more or less quickly, based on the capabilities of those affected jurisdictions. LAX shall use its best efforts to continue to streamline its supplemental funding program application processes in order to accelerate the disbursement of funds to local jurisdictions participating in the program.

3. LAX, with the assistance of the affected local jurisdictions, shall prepare an annual update of the numbers and tabular information within the ANMP that show the total annual funding available to each jurisdiction and the annual performance of each jurisdiction in its efforts to achieve the mitigation of incompatible land uses. In the event that a jurisdiction is unable or unwilling to assist LAX in updating this information, LAX shall proceed using the best information available and shall document the use of estimated information in the update. LAX shall include this updated information with its second quarter "quarterly report" information that it sends to the County of Los Angeles pursuant to the reporting requirements within the State Noise Standards.

4. LAX shall continue in full force and effect, the implementation and enforcement of the following existing noise abatement policies[3] to the extent of its authority:

a. No turns before the shoreline;

b. Over-ocean operations between 0000 and 0630, weather permitting;

c. Helicopter noise mitigation policies;

d. Preferential runway use policies;

e. Southwest buffer zone policies; and

f. Maintenance run-up curfew.

5. To facilitate compliance with its "no turns before the shoreline" policy, LAX shall use its best efforts to reduce the number of early turns by continuing to work with the Federal Aviation Administration (FAA) and pilots to address the various causes for early turns. These efforts shall include, without limitation, continuing to consider emerging technologies that assist with the precise definition of the shoreline that assist pilots in maintaining a straight bearing upon departure, and that otherwise prevent early turns.

6. Within five years following the effective date of this stipulated variance, LAX shall design the two Ground Run-Up Enclosures (GREs) provided for on page 2-95 of the June 2003 LAX Master Plan Addendum.

7. LAX shall undertake an analysis of the existing Preferential Runway Use Policy to determine conditions related to compliance with the policy, how the policy is implemented, and means for improving compliance. LAX will consult with operators, the FAA, and the LAX/Community Noise Roundtable as necessary in performing this analysis, and will draft a report which will include any recommendations for actions that may lead to better policy compliance and/or implementation.

8. Within 45 days after the end of the calendar quarter, LAX shall provide the information to the County of Los Angeles that the County needs to prepare its Quarterly Reports of Noise Monitoring. LAX shall include a brief report regarding the implementation of each of the conditions to this variance decision with the noise monitoring information

[3] These policies are articulated in the section of the LAX Rules and Regulations entitled "Aircraft Noise Abatement Operating Procedures and Restrictions" dated November 2008.

forwarded each quarter. With its second calendar quarter information, LAX shall additionally include the information as described in condition 3 above.

9. Concurrent with its submittal to Caltrans of any proposed new or modified noise monitoring plan or system pursuant to CCR, title 21, section 5033, LAX shall provide the County with a copy of its submittal for review and consideration. LAX shall cooperate with the County in any reasonable request of the County for review or audit of LAX's noise monitoring system for compliance with the requirements of the State Noise Standards consistent with section 21669.4, subdivision (b), of the California Public Utilities Code.

10. LAX will include in each quarterly report tabular data and graphical illustrations describing and comparing the level and type of usage for each runway at LAX during the quarter. Specifically, the report shall include: (a) the average number of arrivals and departures conducted daily in each direction on each runway during all hours and during nighttime hours (10 p.m.-7 a.m.); and (b) percentage of arrivals and departures conducted on each runway in each direction during all hours and nighttime hours (10 p.m.-7 a.m.). When and if such data becomes available, LAX shall also include in its quarterly reports the average number of arrivals and departures conducted daily by aircraft type (e.g., Boeing 747) or similar classification on each runway during all hours and during nighttime hours (10 p.m.-7 a.m.). Data used to calculate the average numbers referenced above shall be retained for at least three years and shall be made available to the public upon request. LAX shall also provide the runway usage data contained in its quarterly reports to the FAA for the FAA's use in monitoring air traffic runway usage that could potentially result in a shift in noise.

11. LAX shall continue to conduct nightly monitoring with respect to its maintenance run-up curfew. LAX shall maintain records of its monitoring and enforcement activities. LAX shall include in each quarterly report information regarding monitoring and enforcement activities undertaken during the quarter. Specifically, the report shall include: (a) a brief description of LAX'S curfew monitoring efforts; (b) the time, date and location of each curfew violation as well as the company performing the maintenance run-up; and (c) follow-up and/or enforcement actions taken by LAX in response to curfew violations.

12. LAX shall take reasonable steps to ensure that the Airport's noise complaint hotline has the capability of providing a live answer as appropriate, and shall ensure that any complaints left as voicemail messages are retrieved and responded to appropriately in a timely manner.

13. LAX shall make available noise measurement data for the Airbus A380 and the Boeing 747-800 (when operations commence) at LAX.

14. This variance decision excuses LAX from meeting the requirement that there be no noise impact area based upon the airport noise standards identified in CCR, title 21, Section 5012 for the term of the variance. However, in the event that LAX violates any of the above terms or conditions, such conduct shall constitute a cause for the termination or further conditioning of this variance. Also, pursuant to Public Utilities Code sections 21699.2 , subdivision (a), and 21669.4, subdivision (b), and CCR, title 21, section 5022, it is the function of the county wherein the airport is located to enforce the state noise regulations.

DATED: 12/23/10

SAMUEL D. REYES
Administrative Law Judge
Office of Administrative Hearings

Exhibit Q

LAX Aircraft Noise Abatement Operating Procedures and Restrictions (Sept. 2010)

AIRCRAFT NOISE ABATEMENT OPERATING PROCEDURES AND RESTRICTIONS

This section sets forth the Los Angeles World Airports' (LAWA's) informal noise abatement traffic; flight and runway use procedures and includes or references LAWA's formal noise abatement ground operations restrictions and other airport noise abatement procedures, restrictions and regulations involving aircraft operations.

All aircraft operators shall comply with Federal Aviation Administration (FAA) regulations and procedures for noise abatement and noise emission standards and with all rules, policies, procedures, resolutions and ordinances established by the City of Los Angeles, LAWA, and LAWA's Board of Airport Commissioners relative to noise abatement. Air Traffic Control (ATC) is used in this section as a common term for all pertinent FAA air traffic control, including but not limited to those at the LAX Control Tower and Southern California TRACON.

It is not intended that any of the traffic or flight procedures contained herein shall, in any manner, abrogate the authority and responsibility of the pilot in command to ensure the safe operation of the aircraft.

1. Operational Responsibilities

a. ATC shall employ the noise abatement preferential runway and taxiway use procedures specified herein, recognizing that under certain conditions it may be necessary to prescribe deviations because of aircraft emergencies, adverse weather, or field construction and maintenance work. Nothing in these procedures shall limit the discretion of either ATC or the pilot with respect to the full utilization of the airport facilities in an unusual situation.

b. Pilots of large aircraft (greater than 12,500 pounds) and pilots of all turbine powered aircraft who are given a preferential runway assignment by ATC shall use that runway unless the pilot determines that in the interest of safety another runway shall be used, except as provided in Subsection 4, Traffic and Flight Procedures (Over-Ocean Operations).

c. Unless specifically instructed otherwise by ATC, pilots of all aircraft departing toward the west shall, in accordance with **Subsection 4**, maintain runway heading until past the shoreline before commencing any turns.

d. Pilots shall not request the use of outboard runways (06L/25R and 07R/25L) for departure unless the pilot determines that in the interest of safety use of these runways is necessary.

e. Pilots of turboprop aircraft shall only request offset on departure in order to avoid wake turbulence, and shall not routinely request offset prior to departure.

f. Airline maintenance managers are to ensure their personnel observe the maintenance restrictions set forth in **Subsection 6**, Maintenance Restrictions.

g. LAX Airport Operations may monitor, if necessary, all maintenance operations, shall stop maintenance operations that are not in compliance with the maintenance restrictions set forth in **Subsection 6**, and shall stop waived maintenance checks when identified with community complaints.

h. The LAX Airport Operations will monitor the use of all airport auxiliary power units (APUs) as set forth in **Subsection 6**. When APU violations are detected, LAX Airport Operations will contact a representative from the airline involved to advise them of the violation.

i. The LAX Airport Operations shall stop aircraft operations that are not in compliance with the Imperial Terminal Procedures set forth in **Subsection 7**.

2. Reporting and Implementation Responsibilities

a. ATC shall report observed pilot deviations from the Traffic and Flight Procedures contained in **Subsection 4** and from the Helicopter Operating Procedures contained in **Subsection 5** to LAX Airport Operations Noise Complaint line at 64-NOISE (646-6473).

b. LAWA's Environmental Services Division will track aircraft operations deviating from **Subsections 3 and 4** contained herein. LAX Airport Operations will receive and record all reported and observed deviations from **Subsections 5, 6, and 7** contained herein. LAWA's Environmental Services Division will contact, as appropriate, LAWA Management, the FAA, aircraft owners, pilots, airline officials, community complainants or others concerning such deviations.

c. The Environmental Services Division will, in cooperation with the FAA, airline and pilot user groups, and other LAWA offices prepare and, as necessary, revise the Aircraft Noise Abatement Operating Procedures and Restrictions set forth herein.

3. Runway Use Procedures

a. Preferential Runway Use. During the noise sensitive hours of 2200 to 0700, ATC shall maximize use of inboard Runways 06R/24L and 07L/25R and Taxiways C and E. At all times, the inboard runways shall be preferred to the outboard runways for departures. Over-Ocean Operation Procedures shall be in effect between the hours of 0000 and 0630 as provided in **Subsection 4**.

b. Intersection Departures. Intersection departures will be used only when it improves the overall efficiency of the aircraft traffic flow. The only intersections designated for intersection departures are Taxiways "E-8" and "F" when the airport is operating under west flow conditions. There are no designated intersections for departures during east traffic.

4. Traffic and Flight Procedures

Due to the prevailing winds, aircraft at LAX normally approach and depart to the west (westerly operations). When weather conditions require, operations are reversed, with aircraft arriving and departing to the east (easterly operations). Between the hours of 0000 and 0630, however, aircraft operate in accordance with the over-ocean preferential runway use procedures, approaching over the ocean toward the east and departing over the ocean toward the west (over-ocean operations). Procedures for westerly, easterly and over-ocean operations are set forth below.

WESTERLY OPERATIONS

Westerly Operation Approach Procedures: RUNWAYS 24/25 BETWEEN 0630 AND 2400 HOURS

Traffic Pattern Entry – North and Northwest Traffic. ATC will instruct all turbojet and four-engine turboprop aircraft that will make a visual approach to execute the "45 Degree Visual Approach" as depicted on current aeronautical charts.

Pilots are requested to:

- Fly outbound via the Santa Monica 068-degree radial during downwind leg until commencing turn to base leg.
- Remain at 5000 feet or above until passing LAX 009 degree radial on downwind leg.
- Start turn to base leg at or above 3500 feet. Fly base leg over or just east of the Harbor Freeway. When assigned Runways 25, cross the extended centerline of Runways 24 at or above 2500 feet. Turn final approach at or above 2000 feet, east of the Hollywood Park Racetrack.

Traffic Pattern Entry – Other Direction Traffic. As directed by ATC, remain at or above 2000 MSL until intercepting final approach course east of the Hollywood Park Racetrack.

Flight Procedures.

- It is required that large airplanes (over 12,500 pounds) approaching to land, in accordance with FAR 91.129 (e) (2), fly at an altitude at or above the ILS glide slope between the outer marker (or the point of interception with the glide slope if compliance with applicable distance from clouds criteria require interception closer in) and the middle marker.
- When weather permits, high altitude low drag minimum thrust approaches are encouraged.

***Westerly Operation Departure Procedures*: RUNWAYS 24/25 BETWEEN 0630 AND 2400 HOURS**

Flight Procedures. ATC will vector turbojet and four-engine turboprop aircraft straight out, and only in an area bounded by bearing westward from the shoreline of 210 degrees and 270 degrees until reaching the altitudes stipulated in the paragraph below.

Except in an unusual situation, or at the specific direction of ATC, pilots will be requested to:

- Maintain runway heading until past the shoreline and reaching 4000 feet before making a right turn and 3000 feet before making a left turn. After lift-off, fly straight to shoreline prior to commencing any turns. Avoid over-flying communities to the north and south of the airport unless under the specific direction of ATC to do so. Twin engine piston and turboprop and all propeller airplanes under 12,500 pounds are exempt only from the altitude restriction.

- Pilots of civil turbojet powered airplanes should employ the takeoff and departure procedure outlined in FAA Advisory Circular 91.53A dated July 22, 1993. However, this does not imply that a reduced thrust technique cannot be used during westerly direction takeoffs.

Nighttime Departure Procedures. During the night hours commencing approximately at 2100 until 0700, all IFR jet departures will use the LAXX and Ventura departures. The Gorman and Loop departures will not be utilized during this time.

EASTERLY OPERATIONS

EASTERLY OPERATION APPROACH PROCEDURE: RUNWAYS 6/7 (WHEN WEATHER CONDITIONS REQUIRE)

Traffic Pattern Entry. As directed by ATC.

Flight Procedures.

- All aircraft shall conduct over-ocean approaches from west to east.

- The base leg for visual approaches shall be flown at least one mile west of the shoreline.

EASTERLY OPERATION DEPARTURE PROCEDURES: RUNWAYS 6/7 (WHEN WEATHER CONDITIONS REQUIRE)

Flight Procedures Pilots of civil turbojet powered airplanes should employ the takeoff and departure procedure outlined in FAA Circular 91.53A dated July 22, 1993. Use of a reduced thrust technique during easterly direction takeoffs is discouraged.

OVER-OCEAN OPERATIONS

OVER-OCEAN OPERATION APPROACH PROCEDURES

***Easterly Approach Flight Procedures*: RUNWAYS 6/7 BETWEEN 2400 AND 0630 HOURS**

- In accordance with the flight procedures delineated above for Easterly Operation Approach Procedures.

- All landings shall be made on Runways 6R and 7L. Deviations are permitted in accordance with Subsection 1 of this Section.

Westerly Approach Flight Procedures (Due to Weather Limitations) Runways 24/25 Between 2400 and 0630 hours. In the event ATC determines that existing weather does not provide for Visual Separation between easterly arriving and westerly departing aircraft (including a ceiling of 400 feet or less above ground level at the westerly end of the airport, a tail wind component that exceeds ten knots from the west, or the runway visual range (RVR) indicates less than 2400 feet), ATC may permit all aircraft to land from east to west in accordance with the procedures delineated above for Westerly Operation Approach Procedures.

OVER-OCEAN OPERATION DEPARTURE PROCEDURES

***Westerly Departure Flight Procedures*: RUNWAYS 24/25 BETWEEN 2400 AND 0630 HOURS.**

- In accordance with the flight procedures delineated above for Westerly Operations Departure Procedures.

- All departures shall be made on Runways 24L and 25R. Deviations are permitted in accordance with Subsection 1.a of this Section.

Easterly Departure Flight Procedures (Due to Weather Limitations): Runways 6/7 Between 2400 an 0630 hours. In the event ATC determines that existing weather provides for only easterly departure traffic flow, including a tail wind component that exceeds ten knots from the east, ATC shall only permit departures on Runways 6R and 7L. Deviations are permitted in accordance with Subsection 1.a of this Section.

5. Helicopter Operating Procedures

The following conditions apply only to helicopter operators with a valid Operating Agreement with LAWA, including a signed Letter of Agreement.

a. All operators conducting helicopter operations at LAX shall carry a current LAX area Helicopter Route Chart and shall comply with ATC requirements and procedures pertaining to helicopter routes and altitudes within the Los Angeles Class B airspace, and with the procedures set forth herein.

b. Helicopter operators arriving or departing the airport shall utilize the flight routes designated by the FAA for Visual Flight Rules (VFR) and Special Visual Flight Rules (SVFR) operations.

c. During SVFR operations, helicopter operators are requested to utilize the southerly industrial route when arriving or departing the airport unless specifically instructed otherwise by ATC.

d. In addition to using FAA designated flight routes, helicopters maintain an altitude of 2,000 feet, weather, traffic and safety permitting.

e. Helicopter operators shall use noise abatement approach and departure flight techniques.

f. Helicopter operators shall avoid nighttime (2200 to 0700) operations except in extreme emergency cases.

g. All helicopter training operations are prohibited, such as: touch-and-go, stop-and-go, and low approach, except for FAA certification flights.

h. Helicopter operators shall provide an identification symbol as prescribed by LAWA that is readily visible from the ground on each of the rotorcraft used in regularly scheduled LAX service.

i. Prior to issuance of a helicopter operating agreement, operators are required to develop, implement, and file with the Board of Airports Commissioners a "Fly Neighborly Program" that emphasizes noise abatement and community compatibility through actions in at least the following areas:

i. Pilot Awareness

ii. Pilot Training and Flight Operations Planning

iii. Noise Abatement Techniques

iv. Sensitivity to Community Concerns

v. Public Information/Helicopter Identification

vi. VFR/SVFR Approach and Departure Routes

vii. Hours of Operations

j. Fly Neighborly Programs shall be kept current and shall be re-filed with the Board of Airport Commissioners whenever revised

k. All helicopter-operating agreements shall be issued for a period not longer than five years and shall be reviewed on an annual basis by the Executive Director. The Executive Director shall submit a compliance report to the Board of Airport Commissioners.

6. Maintenance Restrictions (See Section 3 paragraph 6)

a. Operators unable to perform run-ups on approved leasehold run-up pads, must obtain approval and instructions from LAX Airport Operations Airside Section (310) 646-4265, prior to conducting such activity on any non-leased areas of the Airport.

b. The run-up of mounted aircraft engines for maintenance or test purposes on both leased and non-leased areas is prohibited between the hours of 2300-0600 unless waived on a case by case basis by the Executive Director or his/her designee, as provided below:

i. The engine(s) will be run in a sound suppression unit that will reduce the sound level at the Airport perimeter to 8dB in A-weighted sound level or less above the ambient background level in surrounding residential areas at the time the run-up is conducted.

ii. A single engine will not be operated to exceed idle power at each leasehold area. If more than one engine is to be checked, each engine must be checked separately.

iii. Auxiliary power units are only operated for maintenance and preflight checks.

c. Idle engine checks, run-ups and auxiliary power units are to be operated at minimum time required to accomplish the necessary maintenance or preflight check.

d. Maintenance or test running of jet engines not mounted on an aircraft is prohibited unless performed in a test cell of adequate design. Said cell shall meet noise level criteria at a measurement distance of 250 feet from the center thereof, as follows:

Octave Band Mid-Band Frequency, Hz	Sound Pressure Level dB re: 20 uPa
31.5	86
63	82
125	77
250	73
500	71
1000	69
2000	67
4000	65
8000	59

7. Imperial Terminal Procedures

a. All turboprop powered aircraft over 65,000 pounds maximum gross landing weight or turbojet powered aircraft (regardless of weight) arriving at the Imperial Terminal will taxi to a position on Taxiway A adjacent to the terminal ramp. At this point, engines will be shut down and the aircraft towed into its assigned parking position.

b. All turboprop powered aircraft over 65,000 pounds maximum gross landing weight or turbojet powered aircraft (regardless of weight) departing the Imperial Terminal will be towed to a position on Taxiway "A" adjacent to the terminal ramp and positioned facing east or west on Taxiway A prior to starting engines.

c. Jet engine runs and run-ups, and turbine-based ground power units are prohibited on the ramp and auxiliary power units may only be operated when required during tow-in or departure.

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Exhibit R

Trip Advisor Webpage, *available at*

https://www.tripadvisor.com/Travel-g32655-c160004/Los-Angeles:California:Bob.Hope.Airport.Aka.Burbank.Airport.html

(last visited November 15, 2016)

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Things to Know Before Traveling to Bob Hope Airport:
The next best airport shadowing LAX is Burbank's Bob Hope Airport (airport code BUR)... If you're wanting to avoid traffic and crowds of people, Bob Hope should be your first choice. (Keep in mind, though, that BUR handles domestic traffic only -- no international flights). BUR has been serving travelers since 1930 and has gone through several name changes. In 2003, the airport changed its name to Bob Hope Airport in honor of the Hollywood comedian Bob Hope who parked his private jet there.

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BUR serves Los Angeles, Pasadena, Glendale, and the San Fernando Valley. The airport is conveniently located close to many of Southern California's main attractions like downtown L.A., Hollywood, and Universal Studios. Theme Parks like Disneyland, Disney's California Adventure, Knotts Berry Farm and Six Flags are 40 to 60 minutes away by car (comparable or closer than the transfer time from LAX)

Bob Hope Airport accommodates millions of travelers a year most of whom seem to leave the airport with positive responses. For those that have never used BUR, or for those that frequently use it, here is a set of tips to enhance your use of the airport:

Transportation: Whether you're arriving at or departing from Bob Hope Airport, ground transportation is easy. The traffic in and around the airport is less than at LAX which is a huge highlight. This means less time wasted on airport transfers. Arriving passengers can be dropped off in front of either of the 2 terminals or can use several of the airport's parking options.

Economy parking allows you to park and then take a free shuttle to your terminal. Short term parking allows travelers to park for only $3 for 30 minutes; (the rate for 1 hour of parking is $5) allowing easy access to the terminals which are immediately across the road from the short term parking structure.

Among the parking choices is valet which is the fastest, offered in front of the terminals. If you arrive at BUR, you can be picked up, rent a 'shared van' or 'private van', or take a train (the rail station is within walking distance from the terminals). Free shuttles are available if you don't wish to make the 3 or 4 minute walk. Both Metrolink regional trains (Metrolinktrains.com) and Amtrak national trains (amtrak.com) use this station. You can also take a bus from the one of bus stops on Hollywood Way -- adjacent to the airport's driveway entrance (Bus schedules and routes are available at METRO.NET).

Since the 2 terminals are small and close together, access to the terminals makes roadside pick up easy and fast. If transportation is needed Prime Time Shuttle and Super Shuttle are efficient and reliable ground transportation services offering 'shared vans', 'private vans' and 'towncars/sedans/limos'. Buses are highly popular at Bob Hope Airport and are accessible from the bus stops on Hollywood Way just outside of the airport's driveway entrance. There are Metro buses and the City of Burbank Buses, offering local transportation around the Los Angeles area.

To speed up the loading and unloading of aircraft, Bob Hope Airport allows passengers to use the plane's forward and aft doors simultaneously. Note: there are no jetways at BUR (all aircraft use 'roll up staircases') so if you have trouble climbing stairs, you might consider using a different airport.

Security: As far as luggage goes, be sure to follow packing rules which are similar to those at most U.S. airports. There are restrictions regarding the type and quantity of items (including liquids) that you may pack in your checked as well as in carry on luggage. The TSA has a webpage that explains what passengers may take on the plane. Go here for this information. (The restrictions on liquids are explained in the last secton of this webpage under 'other items')

However, if you find yourself with a prohibited item, you can ship it home at Terminal A with Mailsafe Express. Also, follow all TSA rules. Have your ID ready and pack appropriately. TSA does not allow waiting at the curb but a good tip is to drive to lane #2 past Terminal A for better curbside assistance. Nonetheless, check-in at Bob Hope Airport is fast compared to other airports. Bob Hope Airport prides themselves on convenience. The lines are usually short and the process is smooth.

In and Around: BUR doesn't want travelers to have to long wait but if you have a long layover or time to spare rest assured: the Airport offers free Wi-Fi. In Terminal A, The Lunch Box Cafe provides a full restaurant and bar. For shopping choices, The Paradise Shop is the top choice for retail operations. Although there is plenty to eat and places to shop, Bob Hope Airport customers reviewed their experiences on Yelp.com. Most reviews warned that Bob Hope Airport doesn't have very many good restaurant choices. A good option is to bring what you prefer with you.

Car Rental: Starting July, 2014, BUR has moved all of its car rental facilities into a new parking structure (car park) that is behind the main parking structure for the airport. There is an elevated walkway (some of it, a moving sidewalk) that connects the car rental facilities with the terminals. The estimated length of the walkway is 1100 feet / 335 m -- a walk of about 7 minutes).

There is no shuttle. Remember that, in Burbank, it is very hot during the summer months. if you are traveling with small children or anyone with issues walking, consider having one person go to do the rental car facility and return to the terminal to pick up luggage and the other members of your traveling party, There is now free wheel chair service available on the sidewalk in front of each terminal for those who have trouble walking to the car rental facility.

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Exhibit S

FlyerTalk Webpage, *available at*

http://www.flyertalk.com/forum/southwestairlines-rapid-rewards/1558208-flying-into-burbank-vs-lax-worth-hasslechanging-planes-phx-2.html

(last visited November 15, 2016)

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Exhibit T

Surface Transportation Policy Project, *Build It and They'll Come*

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STPP California Surface Transportation Policy Project

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STPP HOME

ISSUES

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TRAFFIC CONGESTION

Build It And They'll Come

A growing body of research has shown that widening highways is only a temporary solution at best to the complex problem of traffic congestion. Indeed, research has pointed to a phenomenon known as "induced traffic" that suggests new and wider highways actually create additional traffic, above and beyond what can be attributed to rapid population increases and economic growth. In larger metropolitan areas, drivers will often abandon carpools and public transit when additional roadway space is made available through highway widenings or new road construction, thus creating additional trips and more traffic. In the longer term, the promise of more convenient transportation access allows commuters to live further from work, increasing development pressures and thus fueling even more traffic demand. (It should be noted that any form of transportation can produce this effect; whether it was "streetcar suburbs" at the turn of the 20th century or new commuter trains attracting Silicon Valley workers to live in the Central Valley with the promise of a more convenient commute.)

REGIONAL IMPACTS FROM "INDUCED TRAFFIC"

Metropolitan area (UZA)	Forecast annual growth rate in VMT (on freeways & arterials), assuming current growth trends	Forecast annual growth rate in VMT (on freeways & arterials), with no growth in roadway capacity	Percent of total VMT growth attributable to "induced traffic"
Bakersfield	9.0%	6.8%	24.6%
Fresno	5.8%	5.1%	12.4%
Los Angeles	-0.01%	-0.8%	100.0%
Sacramento	3.3%	1.5%	54.6%
San Diego	1.3%	0.4%	72.6%
San Francisco-Oakland	0.6%	-0.4%	100.0%
San Jose	1.3%	0.3%	73.6%
AVERAGE	3.0%	1.6%	45.2%

Note: VMT = vehicle miles traveled or overall mileage driven; Los Angeles and San Francisco have negative growth in VMT when no lane miles are constructed, thus 100% of growth is attributed to the induced travel effect. **Source**: Robert Noland, 2000.

The Federal Highway Administration has recently concluded that this phenomenon of "induced traffic" does in fact occur quite frequently in metropolitan areas throughout the United States. Another detailed study has also concluded that traffic in the Bay Area and Los Angeles would actually decrease if no new highway expansion took place. It also determined that two-thirds of the growth in traffic in San Jose and San Diego in the coming decades will be attributable to induced demand.

A recent study conducted by the U.C. Berkeley Institute for Transportation Studies concluded that 90 percent of all new highway capacity added to California's metropolitan areas is filled within four years, and 60 percent-70 percent of all new county-level highway capacity is filled within two years. This, authors Mark Hansen and Yuanlin Huang explain, means an additional highway lane-mile constructed in the San Francisco Bay Area, Los Angeles or San Diego regions would increase traffic by 10,000-12,000 vehicle-miles traveled per day; in Sacramento and Stockton would equate to 7,000-8,000 additional VMT; and in smaller but nonetheless rapidly growing areas like Modesto, Merced, Monterey and Bakersfield would translate into an additional 3,000-6,000 VMT per day. The authors conclude:

"Our results suggest that the urban state highway lane miles added since 1970 have, on the whole, yielded little in the way of level of service improvements. Consistent with previous work, we find that increasing highway supply results in higher vehicle miles traveled (VMT). An induced traffic impact of such magnitude must be considered when assessing road capacity enhancements, whether in a broad policy context or on a project specific basis."

Several other reports in recent years have pointed to similar conclusions. In 1998, the Legislative Analyst's Office revealed the results of its own research on the issue and cautioned

policymakers about the promise of relying solely on new highway construction in order to reduce traffic congestion throughout California:

"New road capacity will typically lead to new traffic, especially in urban areas, because people and businesses benefit from the mobility that the transportation system provides and seek to use it to their benefit. Ultimately, road use will increase, leading to congestion of new road capacity. For this reason, expansion of the existing transportation will rarely alleviate congestion permanently; however, by restraining demand this tendency can be offset and existing congested roads, as well as new roads, can be made to operate efficiently."

The growing belief that induced traffic largely offsets any short-term congestion relief gains also led authorities in the United Kingdom to cancel more than 70 planned highway construction and road expansion projects in the 1990s alone. Similar experiences have been reported by transportation officials in Germany, Holland and Japan. Many of these countries have retooled their transportation programs to incorporate a more balanced approach to managing traffic congestion as well as a new emphasis on growth management techniques, more compact development patterns, and other land use strategies as a way of beginning to combat what officials and experts see as the underlying cause of increasing traffic volumes.

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Exhibit U

California Air Resources Control Board, "Impact of Highway Capacity and

Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions," Sept. 30, 2014.

Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions

Policy Brief

Susan Handy, University of California, Davis
Marlon G. Boarnet, University of Southern California

September 30, 2014

Policy Brief:
http://www.arb.ca.gov/cc/sb375/policies/hwycapacity/highway_capacity_brief.pdf

Technical Background Document:
http://www.arb.ca.gov/cc/sb375/policies/hwycapacity/highway_capacity_bkgd.pdf

California Environmental Protection Agency
Air Resources Board

Policy Brief on the Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions

Susan Handy, University of California, Davis
Marlon G. Boarnet, University of Southern California

Policy Description

Because stop-and-go traffic reduces fuel efficiency and increases greenhouse gas (GHG) emissions, strategies to reduce traffic congestion are sometimes proposed as effective ways to also reduce GHG emissions. Although transportation system management (TSM) strategies are one approach to alleviating traffic congestion,[1] traffic congestion has traditionally been addressed through the expansion of roadway vehicle capacity, defined as the maximum possible number of vehicles passing a point on the roadway per hour. Capacity expansion can take the form of the construction of entirely new roadways, the addition of lanes to existing roadways, or the upgrade of existing highways to controlled-access freeways.

One concern with this strategy is that the additional capacity may lead to additional vehicle travel. The basic economic principles of supply and demand explain this phenomenon: adding capacity decreases travel time, in effect lowering the "price" of driving; when prices go down, the quantity of driving goes up (Noland and Lem, 2002). An increase in vehicle miles traveled (VMT) attributable to increases in capacity is called "induced travel." Any induced travel that occurs reduces the effectiveness of capacity expansion as a strategy for alleviating traffic congestion and offsets any reductions in GHG emissions that would result from reduced congestion. If the percentage increase in VMT matches the percentage increase in capacity, congestion (a function of the ratio of VMT to capacity) is not alleviated at all.

Conversely, some communities have decreased roadway capacity, in part motivated by the goal of reducing VMT. While temporary reductions in highway capacity are common (e.g. through the closure of lanes for construction or emergencies), permanent reductions are relatively rare. San Francisco eventually removed two elevated freeway segments damaged in the 1989 Loma Prieta earthquake, replacing them with street-level boulevards. Many European cities have closed selected streets in their

[1] See the separate policy brief on traffic incident clearance programs:
http://arb.ca.gov/cc/sb375/policies/policies.htm

commercial cores to car traffic. This strategy is less common in U.S. cities, but one notable example is the recent elimination of vehicle traffic in Times Square in New York City. Increasingly common in the U.S. are "road diet" projects that re-allocate a portion of the public right-of-way for modes other than cars, though such projects do not necessarily decrease the capacity of the roadway as measured by vehicle throughput.

Impacts of Highway Capacity Expansion

Increased highway capacity can lead to increased VMT in the short run in several ways: if people shift from other modes to driving, if drivers make longer trips (by choosing longer routes and/or more distant destinations), or if drivers make more frequent trips (Noland and Lem, 2002; Gorham, 2009; Litman, 2010). Longer-term effects may also occur if households and businesses move to more distant locations or if development patterns become more dispersed in response to the capacity increase. Capacity expansion can lead to increases in commercial traffic as well as passenger travel (Duranton and Turner, 2011).

The induced-travel impact of capacity expansion is generally measured with respect to the change in VMT that results from an increase in lane miles, determined by the length of a road segment and its number of lanes (e.g. a two mile segment of a four-lane highway equates to eight lane miles). Effect sizes are usually presented as the ratio of the percent change in VMT associated with a one percent change in lane miles. The expectation is that this ratio, also called an "elasticity," will be positive: an increase in lane miles will lead to an increase in VMT. An elasticity of 1 or greater means that the new capacity is entirely filled by additional VMT, producing no reduction in congestion or GHG emissions; for elasticities between 0 and 1, the closer the elasticity is to zero, the smaller the increase in VMT relative to the increase in capacity, and thus the greater the reduction in congestion and GHG emissions.

Impacts are also sometimes measured as the change in VMT associated with the change in travel time (that results from the change in highway capacity). Many studies analyze the change in the number of vehicles per day on that road segment (a metric called "average daily traffic"). No studies focused on travel time or average daily traffic are included here.

Effect Size

Studies consistently show that increased capacity induces additional VMT. Elasticity estimates of the short-run effect of increased highway capacity range from 0.3 to 0.6,

though one study produced a lower estimate of 0.1 (Table 1). Estimates of the long-run effect of increased highway capacity are considerably higher, mostly falling into the range from 0.6 to just over 1.0. The more recent studies have produced the highest estimates of long-run elasticities using more sophisticated methodologies that are better able to illuminate the impact of highway capacity on VMT (as discussed in the accompanying Technical Background Document). Thus, the best estimate for the long-run effect of highway capacity on VMT is an elasticity close to 1.0, implying that in congested metropolitan areas, adding new capacity to the existing system of limited-access highways is unlikely to reduce congestion or associated GHG in the long-run.

Table 1. Impact of Capacity Expansion on VMT

Study	Study location	Study year(s)	Results	
			Change in VMT/ change in lane miles	*Time period*
Duranton and Turner, 2011	U.S.	1983 - 2003	1.03	10 years
Cervero, 2003	California	1980 - 1994	0.10	Short term
			0.39	Long term
Cervero and Hansen, 2002	California	1976 - 1997	0.59	Short term (1 year)
			0.79	Intermediate term (5 years)
Noland, 2001	U.S.	1984 - 1996	0.30 to 0.60	Short term
			0.70 to 1.00	Long term
Noland and Cowart, 2000	U.S.	1982 - 1996	0.28	Short term
			0.90	Long term
Hansen and Huang, 1997	California	1973 - 1990	0.20	Short term
			0.60 to 0.70	Long term – counties
			0.90	Long term – metro areas

Even the earlier studies were skeptical about the potential of capacity expansion to reduce VMT, particularly in the long-run. In 1997, Hansen and Huang found that population growth is the most consistent contributor to VMT growth, but that the contribution from increases in lane miles is significant: "…Our results suggest that the urban [state highway lane miles] added since 1970 have, on the whole, yielded little in the way of level of service improvements." Noland (2001) concluded that "Increased capacity clearly increases vehicle miles of travel beyond any short run congestion relief

that may be obtained." More recently, Duranton and Turner (2011) echoed these earlier studies: "We conclude that increased provision of roads… is unlikely to relieve congestion."
The effect size appears to depend on the size (whether in terms of population or geographic extent) of the metropolitan area. On a percentage basis, the effects are larger for smaller areas (Schiffer, et al. 2005), likely for a number of reasons. In smaller areas, capacity increases are likely to represent larger percentage increases in total capacity, which then produce larger percentage increases in VMT (Noland and Cowart, 2000). Note that the amount (rather than the percentage) of induced travel is likely to be greater in larger areas than in smaller areas (Hansen and Huang, 1997).

Other factors may also influence the effect size. As noted above, the effect is larger in the long-run than in the short-run, with one study concluding that the full impact of capacity expansion on VMT materializes within five years (Hansen and Huang, 1997) and another concluding that the full effect takes as long as ten years (Durantan and Turner, 2011). The level of congestion is important, as capacity expansion will produce a larger reduction in travel time and thus a larger increase in VMT when congestion is high than when it is low and driving speeds are unconstrained (Schiffer, et al. 2005). In addition, the effect size may depend on fuel prices: when fuel prices are lower, the induced travel effects of expanded capacity tend to be higher, as travel time is a greater share of the cost of travel in this situation (Noland and Lem, 2002). Whether the form of capacity expansion (i.e. new roads or expanded roads) matters is not clear (Schiffer, et al., 2005).

An important question is whether increased VMT on highways following capacity expansion is partially offset by decreases in VMT on other roads. This would be the case if drivers shifted from slower and more congested roads to the new or newly expanded highways. However, Hansen and Huang (1997) found "no conclusive evidence that increases in state highway lane-miles have affected traffic on other roads," while more recently Duranton and Turner (2011) concluded that "increasing lane kilometers for one type of road diverts little traffic from other types of road." In other words, capacity expansion leads to a net increase in VMT, not simply a shifting of VMT from one road to another.

Another important question is whether increased highway capacity impacts public transit ridership, or vice versa. The potential interactions are complex. Increased highway capacity could lead public transit riders to shift to driving, thereby contributing to the induced travel effect. Conversely, increased public transit service could entice drivers to replace some driving with public transit, thereby reducing highway traffic and in effect freeing up additional capacity that could then lead to induced traffic. Duranton and

Turner (2011) found no evidence that public transit service affects VMT, suggesting that whatever interactions do occur tend to cancel each other out. In other words, adding transit capacity does not help to reduce congestion, as any freed up capacity is consumed by additional driving.

As noted, some communities have decreased roadway capacity, in part motivated by the goal of reducing VMT. Evidence on the effects of roadway removals or capacity decreases is sparse, however. A 1998 study of 60 locations where road space was taken away from cars in the UK, Canada, Tasmania, and Japan found that, on average, 25 percent of VMT seemed to go away, though the effect size varied widely (Goodwin, et al. 1998). A study of a fourteen-month closure of an important bridge in Calgary, Canada found only a small reduction in trips and little change in behavior with respect to mode (Hunt et al., 2001). Researchers also found limited changes in behavior during the temporary closing for construction of a stretch of Interstate 5 through downtown Sacramento in 2008 (Ye et al., 2012). Studies of the removal of the Central Freeway in San Francisco documented a significant drop in traffic: counts on the boulevard that replaced the freeway were roughly 50 percent less than counts on the freeway (Cervero et al., 2009). Effects on VMT rather than traffic counts have not been assessed.

Evidence Quality

The quality of the evidence linking highway capacity expansion to VMT increases is relatively high, although tying changes in VMT to changes in capacity is challenging. The cited studies use time-series data and sophisticated econometric techniques to estimate the effect size. These studies control for other factors that might also affect VMT, including population growth, increases in income, other demographic effects, and changes in transit service (Noland and Lem, 2002).

Although these studies show a strong correlation between capacity increases and increases in VMT, the direction of causality is an important question in that the anticipation of growth in VMT is generally the rationale for capacity expansion. One study showed that a 10 percent increase in VMT is associated with a 3.3 percent increase in lane-miles (Cervero and Hansen, 2002). However, Fulton, et al. (2000) found that growth in lane-miles precedes growth in VMT, and Duranton and Turner (2011) concluded that "roads are assigned to [metropolitan areas] with little or no regard for the prevailing level of traffic." The cited studies have found a significant influence of capacity expansion on VMT even after accounting for the reverse effect.

Caveats

Many of the studies focus on California, and the results for these studies are similar to those for the national studies, suggesting that the effects are relatively uniform across the U.S. However, as noted above, the effect size may depend on size of the metropolitan area, existing levels of congestion, and fuel prices, and it is likely to be higher in the long run than in the short run.

GHG Emissions

The effect of capacity expansion on GHG emissions depends on two competing effects: the increase in VMT (which increases GHG emissions), and the reduction in traffic congestion (which tends to decrease GHG emissions). As noted above, any induced travel that occurs reduces the effectiveness of capacity expansion as a strategy for alleviating traffic congestion and offsets any reductions in GHG emissions that would result from improved traffic flow. Noland (2001) predicted that the growth in VMT attributable to increased lane miles would produce an additional 43 million metric tons of CO_2 emissions in 2012 nationwide. Conversely, any reductions in VMT resulting from reductions in capacity will reduce GHG emissions, though if traffic congestion increases as a result of the capacity reduction, the benefits will be offset to some degree.

Co-benefits

Given the induced travel effect, capacity expansion has limited potential as a strategy for reducing congestion. The additional vehicle travel induced by capacity expansion increases GHG emissions as well as other environmental effects, including increased air, water, and noise pollution. On the other hand, capacity expansion potentially generates economic and social benefits, at least in the short run, even if the new capacity is completely filled by induced travel. The additional benefits derive from the fact that the expanded highway is carrying more people, each of whom benefits from his or her travel. However, most studies of the impact of capacity expansion on development in a metropolitan region find no net increase in employment or other economic activity, though highway investments do influence where within a region development occurs (Handy, 2005; Funderberg et al., 2010).

In addition, the construction process itself generates both positive and negative effects. Most obviously, highway construction projects create jobs that can boost the local economy. On the other hand, highway construction projects often have substantial negative effects on the communities through which they are sited, particularly if construction necessitates the removal of homes or businesses. Historically, low-income

and/or minority communities were and continue to be disproportionately affected by such projects.

In contrast, reductions in road capacity tend to produce positive social and environmental effects, and they can also generate economic benefits. For example, many cities in Europe have adopted the strategy of closing streets in the central business district to vehicle traffic as an approach to economic revitalization (Hajdu, 1988; Rodriguez, 2011). Road diet projects are becoming increasingly popular in California and elsewhere in the U.S. as a way to support modes other than driving and enhance the local environment, though their economic impacts have not yet been systematically documented.

Examples

California continues to expand its highway system, though at a far slower rate than during the era of interstate highway construction. According to the national Bureau of Transportation Statistics, California had 31,435 miles of freeways, highways, and arterial roadways in 2010, a 1.6 percent increase from 2005.

As noted above, San Francisco removed two segments of elevated freeway damaged in the 1989 Loma Prieta earthquake. The Central Freeway was replaced with Octavia Boulevard, while the removal of the Embarcadero Freeway enabled substantial improvements to the at-grade Embarcadero Boulevard. Both projects sparked an on-going revitalization of their surrounding areas (Cervero, et al. 2009).

The strategy of closing central business district streets to car traffic is uncommon in California but not unknown. Cities in California that have or have had "pedestrian malls" include Burbank, Oxnard, Pomona, Redding, Redlands, Sacramento, and Santa Cruz. The Fulton Mall in downtown Fresno, closed to traffic in the 1960s, has struggled, despite several revitalization efforts. In contrast, Santa Monica's Third Street Promenade, closed to traffic in the 1960s, is widely seen as a success in promoting economic activity and creating a thriving community core.

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Exhibit V

McCahill et al., "Effects of Parking Provision on Automobile Use in Cities–Inferring Causality," November 2015.

Effects of Parking Provision on Automobile Use in Cities: Inferring Causality

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Effects of Parking Provision on Automobile Use in Cities: Inferring Causality

ABSTRACT

Many cities include minimum parking requirements in their zoning codes and provide ample parking for public use. However, parking is costly to provide and encourages automobile use, according to many site-specific studies. At the city scale, higher automobile use is linked to traffic congestion, environmental degradation and negative health and safety impacts, but there is a lack of compelling, consolidated evidence that large-scale parking increases cause automobile use to rise.

In this study, we apply the Bradford Hill criteria, adopted from the field of epidemiology, to determine whether increases in parking should be considered a likely cause of citywide increases in automobile use. We rely on prior research and original data from nine U.S. cities dating back to 1960. We find that an increase in parking provision from 0.1 to 0.5 parking spaces per person is associated with an increase in automobile mode share of roughly 30 percentage points. We also demonstrate that a majority of the Bradford Hill criteria can be satisfied using the available data, which offers compelling evidence that parking provision is a cause of citywide automobile use. Given the costs associated with parking and its apparent effects on automobile use, our findings warrant policies to restrict and reduce parking capacity in cities.

Effects of Parking Provision on Automobile Use in Cities: Inferring Causality

INTRODUCTION

Most municipalities in the U.S. set minimum parking requirements *(1)*. These policies assume that the appropriate supply of parking can be determined by estimating the potential demand and aiming to meet that demand. This view is reinforced through the Institute of Transportation Engineer's *Parking Generation (2)* and similar guides. However, it typically fails to account for the complex relationships between parking supply and demand. This is problematic for many well-documented reasons. Parking is expensive to provide, thereby driving up construction and rental prices; it consumes large amounts of space, thereby limiting development potential; and it often encourages driving *(3)*.

This last point—the influence of parking on automobile use—is the primary focus of this study. There is a substantial body of literature describing the many ways that the price and availability of parking influence automobile use and travel behavior. For example, the price of parking at work influences whether employees choose to drive alone *(4–6)*. It also influences where and when people choose to travel for discretionary trips and where they choose to park once they arrive *(7)*. Guaranteed parking at home influence whether commuters drive to work, versus taking transit *(8, 9)*.

These studies suggest that minimum parking requirements, public parking provision, and other mechanisms that push citywide parking supplies upward could potentially cause citywide automobile use to increase over time. Prior research has shown that parking supply and automobile use are correlated across different cities *(10, 11)* and that automobile use increased considerably in cities where parking increased *(12, 13)*.

The primary question in this study, therefore, is one of causality: do citywide changes in parking actually cause automobile use to increase, or are minimum parking requirements an appropriate response to already rising automobile use? The purpose of this study is to consolidate the available knowledge, contribute original data, and apply a robust, scientifically accepted framework for inferring whether causality exists. In addition to prior research, we rely on data related to parking provision and automobile use for nine U.S. cities in the years 1960, 1980 and 2000, which let us track and analyze changes over time.

Causality has been the subject of numerous prior travel behavior studies—particularly those aiming to parse out the effects of residential self-selection. The most common approaches, in lieu of controlled experimental design, include direct questioning through surveys, statistical models that control for residential location choices, and longitudinal studies, or some combination of each *(14–16)*.

Several studies use household travel surveys to control for residential location, which the authors consider a treatment effect that explains attitudinal differences *(17–19)*. Several other studies rely on a comprehensive travel survey administered across eight neighborhoods in northern California in 2003, which includes information about attitudinal differences, how recently a resident moved and their current location—allowing the authors to conduct cross-sectional and quasi-longitudinal analyses *(14, 15, 20)*. Similarly, Joh et al. *(21)* rely on the South Bay Travel Survey administered between 2005 and 2007, controlling for attitudes about walking.

Since we are interested in understanding changes in parking supply and travel behavior at the city scale over multiple decades, our options for parsing out causality are especially limited. Comprehensive travel surveys and detailed location data are not available. The most consistent source of travel data are from journey to work surveys administered by the U.S. Census Bureau

each decade dating back to 1960. Since no reliable database of historical parking supply exists, we are left to develop our own estimates using available aerial photographs. The effort required to develop these estimates limits our potential sample size considerably. These limitations rule out many common approaches including controlled experiments, direct questioning, and statistical modeling.

Instead, we rely on a widely-accepted general theory of causality, adopted from the field of epidemiology, commonly referred to as the Bradford Hill criteria *(22–25)*. The nine criteria, first presented in a 1965 speech by Sir Austin Bradford Hill, a Professor Emeritus at the University of London, are intended for inferring causality when an association already exists. They are not meant to serve as a checklist or set of rules, but instead to answer the question: what aspects of an association should we especially consider before deciding that the most likely interpretation is causality? *(22)* According to Hill, "the decisive question is whether the frequency of the undesirable event B will be influenced by a change in the environmental feature A" *(22)*.

In our case, an environmental feature A refers to parking supply and the event B refers to high levels of automobile use, which many policymakers consider undesirable due to a range of environmental, social, and economic consequences, including traffic congestion, traffic deaths, and pollution. This approach lets us overcome an inherent challenge, which is that there are many potential explanatory variables (e.g., changes in transit service quality) and a lack of reliable data for many of those variables. By approaching the question of parking supply and automobile use in this way, we cannot discredit other factors, but we can gain a reasonably definitive answer regarding the potential citywide impacts of parking on travel behavior and make evidence-based policy recommendations to achieve long-term transportation-related goals.

By demonstrating that parking contributes to rising automobile use, this research calls into question the underlying justification for minimum parking requirements in urban areas. These requirements, like many transportation policies, employ a predict-and-provide approach through which planners and designers provide infrastructure based on estimates of future demand. If our hypothesis that parking causes driving is true, however, then parking has an induced demand effect *(26)*, which should be taken into account and managed accordingly through mechanisms like maximum parking allowances and pricing.

DATA AND METHODOLOGY

For this study, we walk through the Bradford Hill criteria, using them to gain a better understanding of whether parking provision is a likely cause of automobile use in American cities. We rely on original data and analysis, as well as additional knowledge gained from prior studies.

Our study begins in 1960 when the earliest, most consistent data are available. We consider three specific points in time—1960, 1980 and 2000—and the two time periods those dates represent (before and after 1980).

City selection

Some historical data used in this study are only available at the city scale, which prevents us from conducting more fine-grained analyses of individual neighborhoods. Therefore, we only include cities that are reasonably similar in size and form. We selected nine medium-sized U.S. cities—building upon earlier studies *(10, 12, 13)*—from a database of more than 100 cities based primarily on population size and changes in automobile use between 1960 and 2000. Their

population size ranges from approximately 100,000 to 300,000 people and none of the cities experienced marked population growth over the study period, indicating they were largely built up by 1960. The cities represent a full range in automobile use, including some with exceptionally low automobile mode shares. Connecticut and Massachusetts are heavily represented due to the availability of historical aerial photographs from university libraries in each state.

Parking supply data

The main source of original data for this study—and an important contribution of this work—pertains to parking provision as early as the 1950s and as recently as 2009. To our knowledge, this is the most comprehensive set of historical, citywide parking supply data that exists.

To estimate available parking supplies, we first compiled high-resolution aerial photographs for the following years:

- Albany, New York: 1952, 1994 and 2007
- Arlington, Virginia: 1957, 1985 and 2009
- Berkeley, California: 1958, 1985 and 2009
- Cambridge, Massachusetts: 1952, 1985 and 2009
- Hartford, Connecticut: 1957, 1985 and 2009
- Lowell, Massachusetts: 1952, 1985 and 2005
- New Haven, Connecticut: 1951, 1985 and 2008
- Silver Spring, Maryland: 1964, 1988 and 2009
- Somerville, Massachusetts: 1955, 1978 and 2008

Some researchers have estimated parking supplies by evaluating individual sites using field data *(28, 29)* or online tools like Google Streets and Bing Maps *(30)*. Unfortunately, these methods aren't available for estimating historical parking supplies, nor would they let us achieve the desired scale of analysis within our resource constraints.

We identified land used for off-street parking in geographic information systems (GIS) by visual inspection using methods outlined by McCahill and Garrick *(13)* and similar to those described by Davis et al. *(27)*. This includes any visible off-street parking facility with more than three spaces, including multi-level parking structures. For older aerial photographs, which are generally of lower quality, we determined a minimum and a maximum area of parking for each city and report the midpoint of that range.

To estimate the total number of parking spaces, we divided the total area by 350 square feet (32.5 square meters)—the average area per parking space, based on a sample of 100 lots. We multiplied the footprint of parking structures by four to estimate their rough capacity. Values for 1960, 1980 and 2000 were estimated from values in known years using linear interpolation or projection.

Census data

The U.S. Census reports place-based journey to work flows by travel mode as early as 1960. These are reported in printed Journey to Work records from 1960 to 1980 and as part of the Census Transportation Planning Products (CTPP) from 1990 to the present. They allow us to calculate the number of residents and employees commuting to or from each city and the automobile mode share for each year of interest. They also allow us to isolate local commute

trips—those that begin and end within a city. Data on workers and local trips are not available for Lowell in 1960 or for Silver Spring between 1960 and 1980.

By focusing only on the commuting behavior of residents, we also gain a more robust data set that reflects all of cities—including Lowell and Silver Spring—dating back to 1960. These data are available at the census tract level from the National Historical Geographic Information System *(32)*.

APPLYING THE BRADFORD HILL CRITERIA

Bradford Hill and other researchers note that before the nine criteria can be employed, a clear association between the treatment and the outcome must first be established *(22, 23)*. As shown in Figure 1, we consider the relationship between parking provision (parking spaces per resident and employee) and automobile use (automobile mode share for workers) for each year and observe a clear, consistent association ($R^2 = 0.79$).

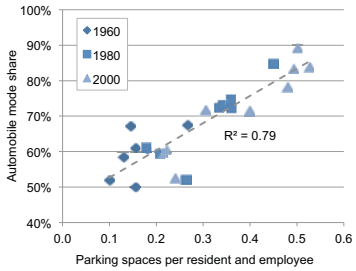

Figure 1. Parking provision versus automobile use for those who live or work in a city, 1960-2000. (Data not available for Lowell in 1960 or Silver Spring in 1960 and 1980)

Strength

Strength of association is the first of nine criteria identified by Hill. It states that a large response in relation to treatment is a compelling indication of causality. As an example, Hill cites the fact that cigarette smokers are nine to ten times more likely to die from lung cancer than non-smokers.

When the treatment is a simple binary—e.g., smokers versus non-smokers—it is helpful to think of strength in terms of relative risk. Courts, for example, have found that a relative risk of 2.0—meaning that the risks are twice as high for a treatment group—indicates an agent is more likely than not to have caused a disease, but more than one study is needed. Some scholars recommend a relative risk of 3.0 *(23)*. Hill is careful to note, however, that one "must not be too ready to dismiss a cause-and-effect hypothesis merely on the grounds that the observed association appears to be slight" *(22)*.

For this study, we consider the association to be strong if the slope of the curve in Figure 1 is large, indicating that changes in parking provision are associated with large changes in

automobile use. The slope is 0.77 (p-value < 0.00), meaning that a change of 0.1 parking spaces per person corresponds with a difference in automobile mode share of 7.7 percent. If we consider cities with 0.2 parking spaces per person as our control group and those with 0.5 parking spaces per person as our treatment group, the expected rates of automobile use are 60 and 83 percent, respectively—a relative risk of 1.4. Compared to epidemiological risks, this is somewhat low, but still consequential. In terms of urban automobile use and its related impacts, this is quite substantial.

Consistency

Consistency refers to whether an association has been observed repeatedly by different individuals, in different situations, and at different points in time.

As shown in Figure 1, the relationship between parking provision and automobile use has held up fairly consistently over a 40-year period from 1960 to 2000 for the cities in this study and, if anything, that relationship has grown stronger. Few other studies look explicitly at the relationship between parking supply and automobile use, which makes it somewhat challenging to ensure consistency. Existing studies, however, validate the general idea that parking availability and automobile use are positively associated.

One recent study modeled the relationship between parking availability and automobile mode share at the census tract level in New York *(8)*, revealing that commuters to Manhattan's core are far more likely to travel by private automobile when there are more off-street parking spaces available per dwelling unit at their home location. An earlier, related study reached similar conclusions by comparing two New York City neighborhoods *(9)*. Two studies of New York City also found that parking availability at home is positively associated with automobile ownership, which serves as a proxy for automobile use *(30)*, and with automobile use directly *(33)*. A separate study of automobile ownership in New York City found that a 10 percent increase in parking requirements is associated with a five percent increase in vehicles per square mile and a four percent increase in vehicles per person *(34)*.

Kuzmyak et al. *(11)* provide data from a 1997 survey of 17 cities around the U.S., which show that the share of commuters traveling by single occupancy vehicle increases as the number of spaces per employee increases. Supplemental data from one study of urban centers in New England *(35)* shows a similar relationship between parking ratios—the number of parking spaces per unit area of building space—and automobile mode share *(36)*.

International examples also validate this association. In Edinburgh, Scotland, one study found that automobile use was considerably lower within a limited parking zone than outside the zone, and that a 1.5-mile (2.5-km) expansion of that zone could reduce automobile use by 21 percent for commute trips *(37)*. Stated preference surveys in Haifa, Israel, show that reductions in parking availability could make 23 to 45 percent of workers and 16 to 25 percent of non-workers change modes, depending on how long parking search times increased *(7)*.

Finally, numerous studies show that parking price—which is different from availability, but often related—also affects automobile use *(4–6, 11, 38–40)*.

Specificity

Specificity refers primarily to instances in which the treatment effect is the only clear explanation for an outcome. As Woodside and Davis *(23)* explain, "The crux of the specificity consideration is that causality is likely if a very specific population at a specific site develops a disease with no other likely explanation."

One study, in particular, allows us to consider the issue of parking supply and automobile use through this lens. Weinberger et al. *(9)* studied two specific neighborhoods in New York—Jackson Heights in Queens and Park Slope in Brooklyn—to understand how parking availability at home influences individuals' decision to drive to work. The authors summarize their findings as follows:

> *Indicators such as income, car ownership, density, government employment, and the difference between drive and transit times to the central business district (CBD) predict a higher share of auto commuting by Park Slope residents. Yet Jackson Heights residents are 45% more likely to drive to work in the Manhattan CBD and 28% more likely to commute by car in general.*

They attribute this unlikely outcome to the fact the Jackson Heights has considerably more off-street parking. Specifically, residents are more than 2.5 times more likely to have access to off-street parking and more than six times as likely to have an on-site, private parking space. The authors conclude that guaranteed parking at home is the only clear factor explaining the relatively high rates of automobile use in that neighborhood.

Temporality

Temporality refers to the sequence of events governing an association and requires that a treatment must come before the outcome. This criterion is particularly difficult to test, in our case, given the broad time-scale of our analysis and the complex interactions among factors. For example, while parking provision may contribute to rising levels of automobile use, it is also likely that, conversely, trends in automobile use affect parking policy and, thus, parking provision.

To test this, we assume that if one factor precedes another, we should be able to predict the latter by looking at prior changes in the former. As an analogy, this implies that an individual's smoking habit can predict whether they will later develop lung cancer, but instances of lung cancer cannot necessarily predict whether somebody will take up smoking.

As shown in Figure 2, increases in the number parking spaces per resident between 1960 and 1980 are directly correlated with increases in resident automobile use the following two decades ($R^2 = 0.86$). However, changes in automobile use before 1980 are a much weaker predictor of parking increases after 1980 ($R^2 = 0.25$), as shown in Figure 3.

This is compelling evidence that even though the relationship between parking and driving is complex, parking provision appears to be the primary leading factor. Using the same analogy as above, this is like saying that even though somebody might begin smoking after developing lung cancer (possibly because their risk of developing cancer no longer exists), smoking is still the primary leading factor of lung cancer.

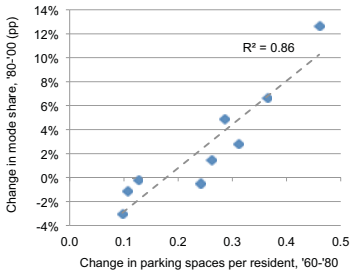

Figure 2. Change in parking provision (1960-1980) versus change in automobile use by residents (1980-2000)

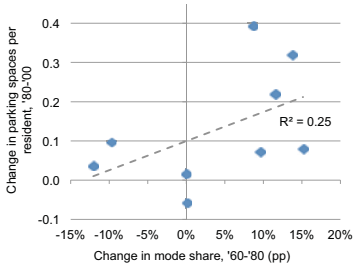

Figure 3. Change in automobile use by residents (1960-1980) versus change in parking provision (1980-2000)

Biological gradient

The biological gradient criterion states that a clear dose-response curve is strong evidence of causality. Hill points again to the case of lung cancer in smokers, which follows a linear relationship. A lower death rate among the heaviest smokers would be problematic, he suggests, but not necessarily evidence against causality.

For this study, we refer again to Figure 1, which shows there is a clear, linear relationship between parking provision and automobile use. For those cities with the largest supplies of parking, rates of automobile use are considerably higher and the relationship is exceptionally

strong in this higher range. In the most extreme cases, where there more than 0.4 spaces per person, more than 75 percent of commuters travel by automobile.

Dose-response curves in conventional epidemiological studies often follow an S-shape curve or some other non-linear form *(23)*. Although our data show a linear relationship, we expect some curvature outside the range of our data. Because automobile mode share cannot exceed 100 percent, we expect this curve to level off as parking increases and mode share approaches its maximum.

Data from two previous studies looking at town and city centers, reproduced in Figure 4, validate this concept *(35, 36)*. As the number of parking spaces per 1,000 square feet (92.9 square meters) of building area increases, the automobile mode share also increases but levels off as it approaches 100 percent. The regression line shown in Figure 4 represents the relationship between automobile use and the natural log of parking provision ($R^2 = 0.87$).

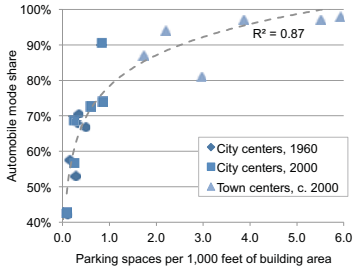

Figure 4. Parking provision versus automobile use for town and city centers *(35, 36)*

Plausibility and coherence

Hill identifies plausibility and coherence as two separate criteria. In epidemiological studies, plausibility suggests that there is a reasonable biological explanation for a particular treatment to cause a particular outcome—e.g., a mechanism by which smoking could cause lung cancer. In contrast, coherence suggests that a theory of causality should not conflict with general knowledge about the nature of a relationship. As Woodside and Davis *(23)* explain, "The difference between coherence and plausibility would seem, in part, to be one of semantics"—one suggests that evidence supports the theory and the other suggesting that evidence does not conflict. Therefore, we consider the plausibility and coherence criteria together.

In fact, general knowledge outside of academic research and separate from the practice of transportation demand management might suggest that automobile use is fairly inelastic and that parking demand is predetermined. This perspective stems partly from the fact that parking is often plentiful and usually not paid for by users *(41)*, which leads many people to expect free, convenient parking at every destination *(42)*. The most common parking policies—minimum parking requirements—and the information on which they are often based also assume that almost all visitors will arrive by automobile *(43, 44)* and that demand is fairly inelastic. While

the evidence base for this approach is not particularly strong, these assumptions are widely held *(1)*.

The mechanisms through which parking availability influences automobile use are fairly well understood. The influence of parking rests in the fact that parking price and availability affect the costs of driving, relative to other modes, in terms of time or money. A majority of the research in this area focuses on the effects of parking price, rather than its availability *(4–6, 11, 38–40)*. Generally, when parking costs are paid directly by the user, she or he can make more informed mode choice and trip-making decisions. Less research has considered the influence of parking availability, but the existing studies point to a similar effect *(7–9, 11, 33, 37, 38)*. As parking becomes less available and search times increase, people are less willing to give up their parking space or search for a new space and, instead, choose alternative modes or change their trip-making behavior in other ways—for example, by parking once and walking to multiple destinations, instead of making multiple trips by automobile.

The influences of parking price, in particular, are widely recognized in tools for estimating travel demand and mode share, even if they are seldom reflected in parking policies. The Oregon Sustainable Transportation Initiative's Greenhouse Gas Reduction Toolkit and the Oregon Department of Transportation's Mosaic planning tool assume that priced parking can reduce vehicle miles traveled by 0.8 to 1.8 percent over a period of 20 years *(45)*. The U.S. Environmental Protection Agency's COMMUTER model accounts for parking costs in estimating automobile versus transit mode shares *(46)*. The Florida Department of Transportation's Trip Reduction Impacts of Mobility Management Strategies (TRIMMS), which is used to estimate travel demand reductions for different policies levers, includes parking price elasticities *(47)*. Its Worksite Trip Reduction Model (WTRM) accounts for priced parking and other parking management strategies in estimating the impacts of employer-based trip reduction programs *(48)*.

Experiment

A randomized controlled experiment is typically the preferred method for establishing causality. However, in the context of urban policy, perhaps even more than in epidemiology, controlled experiments are extremely difficult to conduct.

Nonetheless, some known quasi-experiments exist. As Hill suggests, these are instances of preventative measures—i.e., restrictions on parking availability—that lead to apparent decreases in automobile use. Many of these quasi-experiments occur when employers implement parking restrictions, either because of limited availability or as part of transportation demand management programs.

In Hartford, for example, a majority of the city's largest employers offer free parking to employees. Rates of automobile use at those companies are between 83 and 95 percent. One major insurance company, however, now charges employees a monthly fee in order to manage parking demand. At that location, only 71 percent of employees drive alone to work *(12)*. Other employers and parking districts in different locations have experienced similar outcomes *(11)*. The Hartford example, however, is particularly important to consider since it is one of the more automobile-oriented cities in our study. We can reason that similar measures, if replicated across the city, could have a substantial effect on commuter automobile use.

Analogy

Hill says little about the use of analogy in judging whether a relationship is causal, except that: "With the effects of thalidomide and rubella before us we would surely be ready to accept slighter but similar evidence with another drug or another viral disease in pregnancy" *(22)*. Other researchers interpret this to mean that if one treatment has been shown to produce a particular outcome, less evidence is needed to show that similar treatments could produce a similar effect *(23, 24)*. However, the use of analogy as evidence has also garnered criticism *(24)*.

In the fields of urban and transportation planning, analogy is a particularly challenging criterion to satisfy. Many land use and transportation factors are known to affect travel behavior *(49)*, so the effects of parking should not take any great leap of the imagination. However, many of these factors are also interrelated, rather than analogous. Taking that into account, as well as criticisms of the criterion in general, we consider it only partially met, but not particularly applicable.

IMPLICATIONS FOR PARKING POLICY

According to Phillips and Goodman *(25)*, Hill looked at the decision-making process through an economic lens and believed in weighing the potential costs and benefits of a policy decision before acting on any piece of evidence, however strong or weak that evidence may be. In our case, the costs of providing abundant parking without charging its users directly are too high to be overlooked, particularly in urban areas *(3)*. These include costs with associated land acquisition, construction, maintenance and operations, plus added impacts like traffic congestion *(50)*, environmental degradation *(51)*, lost tax revenues *(52)* and other externalities *(53)*. In contrast, as noted by Weinberger *(8)*, there is little evidence that parking restrictions hurt urban areas economically and some evidence to suggest that parking capacity and economic decline are actually associated. Voith *(54, 55)* finds that abundant parking in urban areas is more likely to be a sign of economic distress than a competitive advantage, arguing that cities generally should not encourage adding parking capacity in their central business districts.

Applying the Bradford Hill criteria to understand the causal nature between parking provision and automobile use in American cities poses some challenges. For example, not every criterion can be thoroughly evaluated using the available data. This is due in large part to a general lack of studies aimed at answering this particular research question. This suggests that more research might be necessary to satisfy the most rigorous scientific standards for inferring causality. This challenge is made even more complicated because the relationship between parking and driving, as with many factors in urban planning, is complex and because reliable data about parking is so rare.

In light of all the available evidence, however, there is a strong case for restricting and reducing parking capacity in urban areas, particularly as a means of curbing high levels of automobile use. The Bradford Hill criteria provide a framework to infer with a reasonable amount of certainty that parking increases have contributed substantially to rising automobile use in cities.

CONCLUSIONS

For this study, we combine original data from nine U.S. cities over a period of 40 years with knowledge gained from prior research in order to apply the Bradford Hill causality criteria and better understand the influence of parking provision on automobile use. At the city scale, we find that an increase in parking provision from 0.1 to 0.5 parking spaces per resident and

employee is associated with an increase in commuter automobile mode share of roughly 30 percentage points. We also demonstrate that a majority of the Bradford Hill criteria can be satisfied using the available data. While there is some lack of relevant data and research, none of available evidence conflicts with the Bradford Hill criteria. Based on this knowledge, we infer that parking provision in cities is a likely cause of increased driving among residents and employees in those places. Given the costs associated with parking and its apparent effects on automobile use, our findings suggest that policies to restrict and reduce parking capacity in cities are warranted.

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McCahill, Garrick, Atkinson-Palombo and Polinski

TRB 2016 Annual Meeting

Paper revised from original submittal.

LAMP-AL00008

McCahill, Garrick, Atkinson-Palombo and Polinski

TRB 2016 Annual Meeting

Paper revised from original submittal.

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Exhibit W

City of Los Angeles Office of the Controller, "Industrial, Economic, & Administrative Survey Report of Los Angeles World Airports," Feb. 2016.

LAMP-AL00008

KH CONSULTING GROUP
MANAGEMENT CONSULTANTS

City of Los Angeles
Office of the Controller

Industrial, Economic, & Administrative (IEA) Survey Report of Los Angeles World Airports (LAWA)

February 2016

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February 2016

Attn.: The Honorable Mayor Eric Garcetti, City of Los Angeles, Office of the Mayor
The Honorable Ron Galperin, City Controller, City of Los Angeles, Office of the Controller
The Honorable Herb J. Wesson, Jr., City of Los Angeles, Council President

Re.: Industrial, Administrative, and Economic (IEA) Survey, of Los Angeles World Airports (LAWA)

KH Consulting Group (KH) is pleased to deliver the 2016 Industrial, Administrative, and Economic (IEA) Survey of Los Angeles World Airports (LAWA). The IEA Survey is overseen by Joint-Administrator representatives of the Offices of the Mayor, Controller, and Chief Legislative Analyst (CLA) (on behalf of the City Council), which met periodically with KH. A LAWA executive and the Internal Auditor attended in advisory roles the Joint Administrators' meetings.

The 2016 LAWA IEA Survey is divided into the following parts:

- **Executive Summary**
- **Part I – Managing and Delivering.** This part outlines major findings and recommendations aimed at enhancing LAWA's management of specific areas: Corporate Social Responsibility (CSR), including economic and environmental impact; guest experience at LAX, including core services and world-class initiatives; and capital planning and delivery and associated administrative processes.
- **Part II – Measuring and Improving.** In the 2016 IEA Survey, the Joint Administrators wanted to enhance public accountability through performance measurements. Such a system is intended to provide LAWA with the tools to move toward an evidence-based, decision-making culture. It also provides baseline data to assess progress on an ongoing basis and in future IEA Surveys. Part II contains the IEA Survey findings and recommendations for LAWA TO develop a comprehensive performance management system through Balanced Scorecards (BSCs).
- **Part III – Implementing and Monitoring.** Part III outlines the steps that the City of Los Angeles, including LAWA, should take to address the recommendations in the IEA Survey and monitor progress in making needed improvements.
- **Appendices.** The appendices contain additional background information, including:
  - Appendix A, which outlines the objectives, scope, and tasks KH completed during the IEA Survey
  - Appendix B, which contains additional Geographical Information System (GIS) maps on the economic and environmental impact of LAWA on the City of Los Angeles and the Southern California Association of Governments (SCAG) region
  - Appendix C, which defines common abbreviations and terminology
  - Appendix D, which includes additional performance measurements that LAWA might consider for environmental responsibility and guest experiences as it develops a complete performance management system

On behalf of the KH Team, we would like to thank the Joint-Administrators from your offices – Felipe Cusnir, Monique Earl, and Mandana Khatibshahidi – who helped guide the review. We valued their direction throughout the IEA Survey, combined with their shared focus on strengthening LAWA's accountability and responsiveness to external stakeholders (the communities and City Hall) and enhancing LAWA's ability to manage its operations.

We also wish to acknowledge the LAWA executive team and staff members for their cooperation in compiling performance measurements, discussing our findings, and embracing our recommendations. The new Chief Executive Officer (CEO, Deborah Ale Flint, has been receptive to new ideas and innovations at LAWA, such as Corporate Social Responsibility (CSR), as well as aligning LAWA's structure with its next strategic directions. As a result, we have already observed LAWA begin to implement some of the 2016 IEA Survey Report recommendations as a result of our preliminary briefings.

KH also values our multi-disciplinary and integrated team, consisting of KH consultants and subcontractors. The KH team's collaborative efforts resulted in this IEA Survey Report:

- Bob Schilling, KH Vice President, Project Manager, Operations
- Charlotte Maure, KH Vice President, Project Manager, Administration
- Jeffrey Hartsough, KH Associate
- Terry Matsumoto, Matsumoto Consulting LLC
- Cameron (Cam) Koblish, Airport/Airline Subject Matter Expert
- Hubert Horan, Airport/Airline Subject Matter Expert
- Lia Reyes, LVR International
- Kati Rubinyi, Civic Projects
- David Bergman, MR+E
- Jim Ayers, CGR Management Consultants

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We wish LAWA and the City of Los Angeles the best in addressing these change initiatives in making LAX world-class. Please let us know if we can ever be of further assistance.

Sincerely,

Gayla Kraetsch Hartsough, Ph.D.
KH President

Attachment: 2016 LAWA IEA Survey Report

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KH CONSULTING GROUP MANAGEMENT CONSULTANTS

Industrial, Economic, & Administrative (IEA) Survey Report of Los Angeles World Airports (LAWA)

Executive Summary

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EXECUTIVE SUMMARY

CONTEXT FOR THE IEA SURVEY

The City of Los Angeles retained KH Consulting Group (KH) of Los Angeles to conduct a City Charter-mandated performance review, also known as an Industrial, Administrative, and Economic (IEA) Survey, of Los Angeles World Airports (LAWA). LAWA is the City's Department of Airports and consists of three airports – Los Angeles International Airport (LAX), Ontario International Airport (ONT), and Van Nuys Airport (VNY). Palmdale Airport (PMD) is no longer an operating airport.

KH also performed the last two IEA Surveys in 2008 and 1999; thus, KH brings an understanding of the progress and changes made at LAWA during the past 17 years. Consistent with KH's approach in the last two IEA Surveys, KH focused more on what LAWA should do to improve its strategy, structure, processes, and operations, and less on looking backward at its prior years' performance. The 2016 IEA Survey also developed performance measurements to enhance LAWA's accountability and responsiveness to external stakeholders as well as LAWA's ability to internally manage its operations.

STRENGTHS AND ACCOMPLISHMENTS

Highlights of LAWA's numerous noteworthy accomplishments since the 2008 IEA Survey include:

- LAX Modernization and Improved Concessions
  - Terminal modernization and facility upgrades, including the transformation of the Tom Bradley International Terminal (TBIT), earning it LEED Gold certification from the U.S. Green Building Council
  - The new Central Utility Plant (CUP) while continuing to operate the old plant and earning LEED Gold status, given its enhancements for energy efficiency and conservation
  - Buy-back agreements for LAX's terminal assets, which has encouraged further terminal development and modernization
  - Improved concessions at LAX, many of which now have a Los Angeles (LA) motif
  - Formation of the Construction & Logistics Management (CALM) team to develop tactics to handle utility shut-downs and traffic lane closures to improve coordination and minimize impact to people going to and from LAX
- Financial Viability
  - Maintaining 'AA' senior lien bond ratings while issuing nearly $4 billion of bonds to support LAX's modernization
  - Strengthened revenue streams through new rate agreements with airlines and new concessions agreements
- Better Systems
  - The Federal Aviation Administration (FAA) finding of zero discrepancies during its annual airfield inspection

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  - The new Airport Response Control Center (ARCC) for managing LAX daily operations and emergencies
  - An improved pavement management system across all airports
  - New technology upgrades to information systems

KEY FINDINGS AND RECOMMENDATIONS

This section highlights the 30 recommendations in the 2016 IEA Survey Report. All of the proposed action steps should be started within the next six months to two years. Many of the recommendations, once implemented, will become ongoing initiatives.

Strategy and Budgeting

LAWA would benefit from a strategic framework for defining priorities, which it should then budget for, measure, and improve. Beyond the modernization initiatives, LAWA currently lacks strategic priorities that guide its business directions. Strategic priorities can also serve as the foundation for budgeting and a performance management system. A "strategy-linked" budgeting process will reflect expected outcomes, providing insights regarding priorities, along with budget performance reports against outcomes for BOAC, executive leadership, and divisions.

Corporate Social Responsibility (CSR)

To improve public accountability, LAWA should embrace the principles of Corporate Social Responsibility (CSR). LAWA currently lacks formal corporate values and guiding principles about how it will conduct itself. CSR emphasizes the role of organizations to embrace actively their responsibility to stakeholders, moving beyond regulatory compliance to include meeting high ethical standards and national or international norms.

Because of LAWA's public accountability role, it must continually strive to be a prudent steward of the airport assets, while ensuring the quality, safety, and convenience demanded by its passenger base and Los Angeles residents. LAWA has many stakeholders: airlines, passengers, adjacent communities, airport-related businesses, and government. LAWA must balance the public trust, accountability to the airlines, and needs of government (e.g., City of Los Angeles, LA Metro, FAA, or Transportation Security Administration (TSA)).

LAWA should monitor and plan to increase its contribution to the Los Angeles economy. LAWA is an important economic engine, contributing at least $2.6 billion to the regional economy and 360,000 jobs in Los Angeles County. Despite its importance, economic development is seen as a consequence or secondary effect of airport activities, and not as a central part of LAWA's mission. As a result, LAWA has neither developed a strategic approach to maximize its economic impact and benefits, nor compiled and monitored data on its economic impact.

The FAA requires LAWA to spend all airport-generated revenues for aviation-related purposes, including land acquisition projects. Following these guidelines, LAWA has begun to invest successfully in real estate surrounding LAX. The new LA Metro Crenshaw/LAX Line and the Automated People Mover (APM)

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that will connect LA Metro trains with LAX will stimulate economic development in the vicinity of LAX. To systematically and effectively employ land use development, LAWA should establish a comprehensive economic development strategy that can guide policy and investments by LAWA to meet measurable goals and objectives for economic development.

LAWA should present the "big picture" of its environmental impact, while communicating its sustainability efforts. The *2008 Los Angeles World Airports Sustainability Plan* remains the most recent policy document guiding LAWA's sustainability efforts. LAWA has prepared Environmental Sustainability Reports since 2008 as part of its public accountability. During the past six months, LAWA's environmental staff members have made progress in achieving a more cohesive perspective on environmental sustainability and the environmental reality of LAWA's facilities. Consistent with CSR principles, LAWA's next environmental report will expand from the original focus on compliance with regulations and the production of required Environmental Impact Reports (EIRs) to a broader view of the issues. LAWA is seeking Level 3 accreditation through the Airport Council International—North America (ACI-NA) Airport Carbon Accreditation program[1] for achieving carbon reduction. LAWA has also set targets in Greenhouse Gas (GHG) emission reductions.

LAWA should continuously work toward moderating its environmental impact and informing the public about both its environmental impact and its mitigation efforts. All airports are sources of pollution, consuming natural resources and producing pollutants. Any assessment of environmental sustainability at LAWA inevitably occurs in the context of an unspoken, but widespread belief, on the part of the public and stakeholders that the economic and social benefits of air travel outweigh the environmental impacts. Transparency is the best way to ensure that environmental costs and economic benefits are being considered. LAWA must establish goals and objectives to meet its CSR goals, and not just comply with regulations, but go beyond them.

LAWA must always strive to maintain good relationships with external stakeholders, given their diverse interests. LAWA has a dispersed and complex network of external stakeholders. Local communities and neighbors are primarily concerned about adverse environmental impacts on them – primarily traffic and noise. Many of the residents also benefit from airport-related businesses and employment opportunities.

LAWA should establish goals and measurements for evaluating the effectiveness of government affairs' activities. Airports require close working relationships with other governmental agencies, including the FAA, TSA, LA Metro, and other City of Los Angeles departments and elected officials. Since the 2008 IEA Survey, LAWA has had uneven working relationships with City Hall. City of Los Angeles relationships are important to nurture. For example, LAWA has been working with the Los Angeles Department of Water & Power (LADWP) to mitigate power outages and surges at LAX. Such outages and surges are a major hindrance to the airlines and airport operations; they can also erode travelers' perceptions when elevators or escalators are out of commission.

1 Airport Council International (ACI), Airport Carbon Accreditation, Issue 5.3, January 2015. www.airportcarbonaccredited.org

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LAWA may reduce losses and improve performance with a stronger Internal Audit function with BOAC oversight. LAWA lacks an active Audit Committee on BOAC and a robust Internal Audit function. Some key areas have not had independent audits in years. Therefore, BOAC should re-activate its Audit Committee, which would approve and ensure completion of the annual risk-based audit plan.

Guest Experience

Mayor Garcetti established "Guest Experience" at LAX as a priority for LAWA in early 2015. The term "guest" includes both passengers and people who come to LAX as "meeters and greeters" of passengers. KH divided the Guest Experience initiative into two parts: core services and world-class features.

Core Services

Core services are expected of all airports, and include safety and security, efficient movement to and through LAX, level of air services (cities served), and clean and well-maintained facilities. Unless the airport meets acceptable thresholds in these areas, travelers will rate LAX – or any other airport – lower in terms of satisfaction and as a desirable airport to use.

LAWA's highest priority is to ensure that the airports are safe and secure. LAWA should continually strive to protect guest safety and security in a partnership that includes both sworn and non-sworn officers, including those from other law enforcement agencies (e.g., TSA, Customs Border Patrol (CBP), or Federal Bureau of Investigation (FBI)). The total number of Part 1 violent crimes (aggravated assault, homicide, rape, and robbery) has steadily declined from 14 in 2013 to 3 in 2015 (year-end estimate). Most Part 1 crimes at LAX are property crimes (e.g., burglary, theft, and auto theft), which have averaged between 7.5 and 8.1 Part 1 Crimes per 1 million annual passengers (MAP) per year for the last 3 years.[2]

LAWA needs to proactively manage Central Terminal Area (CTA) congestion during and after construction. LAWA completed the preferred concept plan for its $5-billion Second Modernization Program to improve land access to LAX, including a 2.2-mile APM that will link a Consolidated Rent-A-Car Center (CONRAC) with a new LA Metro Crenshaw/LAX station and the LAX terminals.

In the next few years with the Second Modernization Program, guests will face increasing challenges in accessing the CTA because of major construction and rising passenger volumes. The lack of focus on landside operations appears to be one of the most serious weaknesses at LAWA. ARCC and CALM are steps in the right direction; however, LAWA lacks traffic engineering expertise and sufficient staffing for landside operations to deal with CTA congestion problems. LAWA will need an integrated approach on accessing and exiting the CTA, parking, and terminals to minimize congestion. Specific actions LAWA can take are to:

- Assign landside operations overall operating responsibility for terminal, traffic, and parking performance
- Add staff to allow adequate 24/7 coverage of landside operations as a function distinct from airside operations

2 Source: LAWA, Law Enforcement & Homeland Security Division, December 2015.

- Add specialized expertise in traffic engineering
- Form a cross-functional team to draw on the experience in ARCC and CALM to develop and execute a coordinated landside operations strategy[3]
- Increase operations technology investments, given anticipated construction-related challenges

LAWA maintenance should continue its efforts to address preventive and unscheduled maintenance. LAWA only began to track planned maintenance systematically through Maximo in July 2015. Such tracking is important for stabilizing operations and system reliability, which affect the guest experience.

World-Class Features[4]

The City of Los Angeles wants LAX to be world class and competitive with other international airports in the United States and overseas. City of Los Angeles officials believe that arriving passengers' first impression of Los Angeles is based on what they experience at LAX. A bland corridor does not evoke the desired image of Los Angeles, as discussed under "Guest Experiences."

World-class features heighten the guest experience by making the airport friendly and enjoyable. World-class elements include ambiance/LA sense of place, concessions and amenities, hospitality, and informed guests. International airports are gateways to metropolitan areas, and these factors distinguish truly excellent airports from more mundane facilities, serving as introductions to the anticipated experiences in the local areas. World-class features can also be a major source of airport revenue; for example, LAWA's concessions generate $1.5 billion in total revenues. The Second Modernization Project will further improve these features and the guest experience.

LAWA needs to ramp up its sense of LA and its amenities for LAX to be world class. LAWA has focused on upgrading its concessions and ensuring that more of them reflect the ambiance of Los Angeles. Although improving, LAX does not evoke a vibrant sense of Los Angeles.

World-class airports also ensure that desired commercial outlets, especially multiple food and shopping opportunities, technology, and amenities, are available on both sides of the security checkpoint. But even at the newly renovated TBIT, the waiting area for meeters and greeters is still dark and crowded with insufficient seating and difficult sight lines to see arriving passengers. With the closure of the Theme building, the only terminal with sit-down restaurants where departing passengers can check in and share a meal with friends and relatives before going through security is TBIT.

3 Should include Operations, Maintenance, & Emergency Management Group (OMEMG); Commercial Development Group (CDG); Facilities Maintenance & Utilities Group (FMUG); Guest Experience; and Law Enforcement & Homeland Security (LAX airport police).
4 LAX photo from "Photo Tour: Behind the Scenes at Los Angeles International Airport," by Ben Mutzabaugh, photos by Jeremy Dwyer-Lindgren, Special for USA TODAY, December 2, 2015.
http://www.usatoday.com/story/todayinthesky/2015/12/02/photo-tour-behind-scenes-los-angeles-international-airport/76555310/

Times and expectations also change. What was once considered a world-class feature may become a core service, such as Wi-Fi connectivity or charging stations. Despite concerted efforts by LAWA, LAX's Wi-Fi services lag behind other world-class airports in terms of speed.

LAX needs to focus on improving its reputation for hospitality and helping to make it easier for guests to navigate LAX. LAWA's goal should be to enable guests to feel confident that they know what they need to know about getting to, moving through, and leaving LAX before they start their journeys. LAWA's "*LAX is Happening*" website provides travel tips for each terminal; however, wayfinding is a challenge at LAX. Little signage is in foreign languages. Guests should feel welcomed with friendly and informed airport workers. Guests do not care whether their questions are answered by an airline employee, a LAWA employee, or a contract worker – all should be trained in hospitality and airport information. To guests, the combined actions of all those people generate their LAX experience.

Guest Experience Metrics

LAWA will need to be nimble and move expeditiously to leverage technology and access data through proprietary applications (apps) or partnerships. LAWA has only part of the data needed to track the entire guest experience. The guest experience begins from the moment individuals leave their homes, hotels, or work to get to LAX. Moreover, guests demand real-time information so passengers can be on time for flights and meeters and greeters can meet passengers. LAWA should work with partners to develop technology and wayfinding applications that direct people to the proper place and inform them about waiting times (e.g., Waze, Google, MapQuest, Go LA, CBP, TSA, etc.).

LAWA should continue its guest experience efforts, tied to performance measurements. LAWA will need to develop collaborative relationships with multiple jurisdictions (e.g., airlines, TSA, and CBP) to measure guest experiences across their travel experience at LAX.

Capital Improvements

Since 2007, LAWA has spent $5.2 billion of its $8.5-billion Capital Improvement Program (CIP) to modernize LAX, including TBIT, making it the largest public works project in the City's history. The Second Modernization Program, already discussed, is a comprehensive redevelopment of the ground transportation system. In 2016, LAWA intends to initiate procurement of the first two CIP elements, the APM and the CONRAC, using a Design-Build-Finance-Operate-Maintain (DBFOM) delivery method.

LAWA should undertake some internal improvements to strengthen LAWA's capacity to implement the Second Modernization Program. LAWA should enhance its financial system (SAP) to better support capital projects. SAP provides budget versus actual reports; however, for large dollar line items (e.g., construction), budget amounts are released incrementally during the year. Consequently, staff members maintain separate Excel spreadsheets to monitor these costs. LAWA should engage in a business process review of the SAP enterprise software system to evaluate how to take full advantage of SAP functionality, especially data warehousing and linkages to the Prolog construction management and Maximo maintenance management systems.

LAWA can also improve capital program implementation through stronger management readiness and coordinated processes. LAWA would benefit from establishing a business solutions unit at LAWA to focus on process improvements and information systems design. Better estimations of the number of augmentation staff (e.g., contractors) needed may lower capital program and project costs. LAWA will need a full complement of capable staff to implement its aggressive capital program; thus, LAWA should apply additional resources and improved approaches to human resource processes, especially recruitment, hiring, discipline, and promotion (i.e., streamlining the overall cycle time and transparency for these processes).

LAWA should establish at least 5-year and 10-year CIPs that include anticipated multi-year capital projects and maintenance of existing and planned facilities.

Changes in procurement can reinforce LAWA's commitment to fair and impartial procurement processes. LAWA Procurement awarded $593 million, of which $103,839,725 was for Requests for Bids (RFBs) last year. Procurement has challenges in knowing whether LAWA is getting the best value from vendors and contractors responding to these RFBs because, in 2014-2015, 58% of the solicitations received only 1 or 2 bids. In some situations, LAWA is limited in its ability to ensure competition because the FAA only approves one vendor to provide specific products; however, there is room for improvement at LAWA.

LAWA should investigate the causes for the low number of bidders, and take actions to ensure that specifications are biddable, that there are qualified proposers, and that bids are responsible and responsive. In addition, LAWA should assign a more active role to Procurement in managing the selection process for Requests for Proposal (RFPs), especially the larger ones.

Balanced Scorecards (BSCs) and Performance Measurements

Major themes of this IEA Survey report include the need to establish much more rigorous, data-driven management processes; the need to significantly improve the passenger experience; and the need to manage increasingly cross-functional and cross-jurisdictional challenges, such as CTA congestion, particularly during the Second Modernization Program.

LAWA currently collects substantial quantities of data related to its operations. Some are mandated, while others are common practice. What is missing is the arrangement of the measurements so that the metrics:

- Support LAWA's mission and strategic priorities
- Facilitate regular monitoring and continuous improvement of operations and services
- Are shared regularly within LAWA, and with BOAC, City officials, City departments, and other governmental agencies, as well as with the public at large

Based on guidance from the Joint Administrators, and with confirmation from LAWA executive leadership, the KH team applied the Balanced Scorecard (BSC) model[5] to performance measurements in

5 Robert S. Kaplan and David P. Norton developed the BSC model, which is widely used in corporate America because it strategically links performance planning with a measurement framework.

some key areas that could serve as prototypes for expanding the BSCs into a complete performance management system for all LAWA divisions. The first two BSC prototypes are more strategic and cross-functional; the other two are business-oriented BSC prototypes that affect all LAWA operations:

- **Corporate Social Responsibility (CSR) BSC** (economic and fiscal impact; environmental responsibility (e.g., air, water, and noise impacts))
- **LAX Guest Experience BSC** (core services and world-class services)
- **Administrative BSC** (Procurement, Human Resources, and Internal Audit)
- **Finance BSC** (Finance, Accounting, and Risk Management)

LAWA has multiple challenges in developing a complete performance management system with dashboards, however:

- LAWA has neither identified its strategic priorities nor established goals, objectives, and targets to measure, benchmark, and monitor progress against its programs and services, except for its Modernization Programs.
- LAWA executives do not have a set of cross-functional, high-level metrics upon which to focus. Divisions do not routinely share data. Some data collection efforts are labor intensive or the data are not available.
- LAWA will need to work with its partners to obtain data, particularly for measuring and monitoring guest experiences (e.g., TSA screening times or airline counter baggage check in).

KH developed goals, defined measurements in support of those goals based on prevailing practices and statistics, compiled data for one or more years if available, defined the frequency that LAWA managers should monitor the measurement, and established targets where feasible. LAWA now has a framework for further refinement, such as the development of specific objectives in support of the goals tied to targets.

On the basis of these BSC prototypes, LAWA should develop BSCs and a complete performance measurement system. The use of a performance management system will be a dramatic cultural shift toward increased evidence-based, decision-making at LAWA. LAWA should review, refine, adopt, and monitor the BSCs developed during the IEA Survey. LAWA should also develop BSCs for its top strategic priorities and all LAWA divisions. LAWA should designate Finance to manage financial metrics reported in all BSCs.

ONT – OUTSIDE THE SCOPE OF THE IEA SURVEY

During the course of the IEA Survey, the City of Los Angeles entered into an agreement to transfer ONT to the newly created Ontario International Airport Authority (OIAA). This transfer will require significant planning and administrative work to ensure a smooth transition of ONT.

Industrial, Economic, & Administrative (IEA) Survey Report of Los Angeles World Airports (LAWA)

Part I: Managing and Delivering

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I.1: BACKGROUND

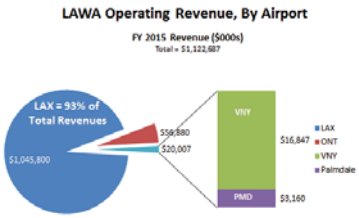
This section provides some facts and figures about Los Angeles World Airports (LAWA) and highlights its many strengths and accomplishments since the 2008 Industrial, Economic, & Administrative (IEA) Survey.

FACTS AND FIGURES

LAWA Overview

LAWA consists of three airports with total operating revenues of $1.1 billion.

- Los Angeles International Airport (LAX) accounts for 93% of revenues. The primary focus of this 2016 IEA Survey Report is on LAX.
- Ontario International Airport (ONT) is primarily a regional airport with some international flights. During the course of the 2016 IEA Survey, the City of Los Angeles reached an agreement to transfer ONT to the newly created Ontario International Airport Authority (OIAA).



- Van Nuys Airport (VNY) is one of the nation's most heavily used general aviation airports. The number of operations at VNY, however, decreased from 270,000 in 2013 to 238,000 in 2014, a difference of -11.9%.

Palmdale Airport (PMD) is no longer an operating airport.

A seven-member Board of Airport Commissioners (BOAC) establishes policies that are carried out by the LAWA Chief Executive Officer (CEO), the executive team, and 3,170 professional, technical, and administrative staff members. As a proprietary department of the City of Los Angeles, LAWA generates its own revenues and requires no taxpayer funding. Federal Aviation Authority (FAA) regulations require that all revenues be reinvested in the airports.

LAX

LAX is a major international gateway and economic engine for the region. LAX is the world's busiest airport in terms of Origin & Destination (O&D) passengers.[1]

LAX is the world's busiest airport in terms of Origin & Destination (O&D) passengers.

As shown in Table I.1a, LAX served a total of 74.9 million passengers in 2015, setting a new record. Passenger volume grew 6% over the previous year, making LAX the second-busiest airport in the United States, just after Hartsfield-Jackson Atlanta (ATL), and the seventh-busiest airport in the world, just after London Heathrow. Of LAX's 74.9 million passengers, a record 20.7 million passengers were aboard international flights, an increase of 8.5% over 2014. Approximately 27% of LAX's passengers are from other countries.

Table I.1a: Number of Passengers (2012 through 2015)[2]

Calendar Year (CY)	Annual Passengers (Arriving and Leaving LAX)[3]			% Change Over Prior Year
	Domestic	International	Total	
2012	46,535,207	17,152,914	63,688,121	--
2013	48,813,587	17,852,139	66,665,726	4.7%
2014	51,556,545	19,105,667	70,662,212	6.0%
2015	54,196,181	20,740,075	74,936,256	6.0%

Approximately 70 passenger airlines serve LAX. Market share leaders at LAX, displayed in Table I.1b, include Delta Airlines, American Airlines, United Airlines, and Southwest Airlines, followed by Alaska Airlines, Virgin America, U. S. Airways, Spirit Airlines, Air Canada, and JetBlue Airlines. These 10 air carriers account for 77.8% of the passengers at LAX.

Table I.1b: Top 10 Air Carriers at LAX[4]

	Air Carrier	Number of Passengers	% of LAX Market	# of Domestic Passengers	# of International Passengers
1	Delta Air Lines	12,644,137	16.9%	10,982,055	1,662,082
2	American Airlines	12,355,407	16.5%	11,128,704	1,226,703
3	United Air Lines	12,252,085	16.4%	11,005,036	1,247,049
4	Southwest Airlines	8,615,401	11.5%	8,615,401	0
5	Alaska Airlines	3,379,687	4.5%	2,668,320	711,367
6	Virgin America	3,068,386	4.1%	3,007,335	61,051
7	U. S. Airways	2,023,759	2.7%	2,023,689	70
8	Spirit Airlines	1,382,795	1.8%	1,382,795	0
9	Air Canada	1,283,790	1.7%	0	1,283,790
10	JetBlue Airlines	1,264,292	1.7%	1,264,292	0
	Subtotals	**58,269,739**	**77.8%**	**52,077,627**	**6,192,112**
	All Other Airlines	16,666,517	22.2%	2,118,554	14,547,963
	Totals	**74,936,256**	**100.0%**	**54,196,181**	**20,740,075**

1 Origin and destination traffic consists of passengers who either board or deplane at a particular stop, In this case Los Angeles, versus passengers who remain on the plane or at the airport to go to another destination.
2 Source: Los Angeles World Airports (LAWA), Traffic Comparison (TCOM) reports, Revenue Asset Management System (RAMS), December 31, 2015.
3 Transit passengers are only counted once.
4 Source: LAWA, TCOM reports, RAMS, December 31, 2015.

Approximately 2.1 million tons of cargo passed through LAX in 2015, a 6.5% increase over 2014, as shown in Table I.1c. Of this tonnage, 95.6% was freight and 4.4% was mail. Cargo freight tends to be high-value items; the total value of the 2.0 million tons of cargo in 2014 was estimated to be worth $91.6 billion, averaging $45,733 per ton.

- ***Cargo – Air freight tonnage.*** Ten 10 carriers represent 52.2% of the freight tonnage in 2015: Federal Express (17.4%), Delta Air Lines (4.6%), Korean Airlines (4.4%), ABX Air Inc. (4.3%), and Cathy Pacific (4.2%), followed by China Airlines, NCA, American Airlines, China Southern Airlines, and Eva Airways Corporation.
- ***Cargo – Air mail tonnage.*** The top 10 carriers that carry air mail represent 88.5% of all air mail tonnage: United Air Lines (29.2%), Delta Air Lines (26.1%), American Airlines (12.5%), Kalitta Air LLC (4.8%), and Qantas Airways System (4.5%), followed by U. S. Airways, Alaska Airlines, Japan Airlines, Cathay Pacific, and China Airlines.

Table I.1c: Cargo Tonnage (2012 through 2015)[5]

Calendar Year (CY)	Freight	Mail	Totals	% Change Over Prior Year
2012	1,867,155	88,438	1,955,593	--
2013	1,851,433	77,286	1,928,720	-1.4%
2014	1,923,003	79,877	2,002,910	3.8%
2015	2,038,221	94,265	2,132,486	6.5%

The majority of LAX's $1 billion in revenue is from rentals, landing fees, and other aeronautical sources (66%). The balance is from concessions and parking (34%), as shown in Table I.1d.

Table I.1d: LAX Revenue Sources (2015)[6]

LAX Revenue Sources	Revenue ($000s)	% of Total
Total Aviation	$687,856	66%
Total Concessions & Parking	$357,944	34%
Total	**$1,045,800**	**100%**

5 Source: LAWA, TCOM reports, RAMS, December 31, 2015..
6 Source: LAWA Finance, 2015.

STRENGTHS AND ACCOMPLISHMENTS

Facility Modernization

TOM BRADLEY INTERNATIONAL TERMINAL (TBIT) UNDERWENT A MAJOR TRANSFORMATION, ALONG WITH OTHER NEEDED MODERNIZATION PROJECTS.

With a total budget of $8.5 billion, the LAX Capital Improvement Program (CIP) collectively is the largest public works project in the City's history. Since 2007, LAWA has spent $5.2 billion of the CIP budget to modernize LAX, including the Tom Bradley International Terminal (TBIT).

Initial TBIT Renovation

In March 2010, LAWA completed a $737-million renovation of TBIT to make traveling through this international gateway safer, faster, and more comfortable.[7] Originally built in 1984, TBIT's major renovations were:

- Improvements to the ticketing lobby, arrivals corridors and arrivals waiting area
- Modifications to two gates (including a two-level gate) to accommodate the Airbus A380 for use prior to the opening of the renovated TBIT departure area in 2013
- The addition of 45,000 square feet to house a new baggage screening and handling facility to make it easier and more efficient to check bags, reduce congestion in the check-in lobby, and an improved baggage claim experience for arriving international passengers
- A state-of-the-art environmental control system, automated high-efficiency lighting, and high-efficiency Heating, Ventilation, and Air Conditioning (HVAC) systems, which earned the project a Silver LEED-EB (Leadership in Energy and Environmental Design-Existing Building) award from the U. S. Green Building Council

LAWA's improved materials and resource conservation efforts resulted in recycling or salvaging of more than 75% of construction and demolition waste.

New TBIT Project

Between 2010 and 2015, LAWA embarked on the $1.5 billion New Tom Bradley International Terminal Project[8] (called the "New TBIT Project"), which today provides travelers with improved:

- **Boarding gates.** TBIT has 18 expanded boarding gates/waiting areas with 9 gates able to accommodate the new generation aircraft (Airbus 380 super jumbo jet and Boeing 747-8 Intercontinental). Boarding areas have 50% more seating, including counters with electrical outlets for travelers who want to work before their flights and seats with electrical outlets for charging personal electronic devices.
- **Great Hall.** After passengers complete check-in and screening, they have access to TBIT's 150,000 square-foot Great Hall, which offers dining, retail shopping, airline club lounges, and passenger amenities.
  - Dining includes Los Angeles and international cuisine, healthy and fresh food, and grab-and-go options; 15 of the 27 dining units are local Los Angeles brands.
  - TBIT has 6 VIP business- and first-class lounges on the 5th floor (Qantas, KAL, and OneWorld Alliance) and 6th floor (Star Alliance, Emirates, and LA International Lounge (unaligned airlines)).
  - A LAX Beach Children's Play Area provides a safe and fun place for children.
- **Retail.** TBIT houses 42 retail offerings, including luxury designer brands, duty-free retail, and Los Angeles brands.
- **Media.** TBIT's Integrated Environmental Media System (IEMS) is the first media system to synchronize and manage content to create an environmental experience using live data, flight departure and arrival information, and passenger interactions.
  - IEMS provides entertainment for guests and a source of non-aeronautical revenue for LAWA.
  - As part of IEMS, the Time Tower/elevator inside the Great Hall has an interactive surface that reacts to the movements of passengers by triggering customized, real-time visual effects.
- **Customs area.** The upgrades to customs and immigration Federal inspection areas have enabled passengers to be cleared to enter more efficiently with planned secured corridors between TBIT, Terminal 3, and Terminal 4. The connection between TBIT and Terminal 4 is currently under construction; the connection between Terminals 3 and 4 is included in the ongoing plans for the renovation of Terminal 3.

The New TBIT Project achieved LEED Gold certification from the U. S. Green Building Council. LAWA adopted practices to minimize the environmental impact, including:

- Recycling or salvaging more than 75% of construction and demolition waste
- Installing efficient lighting fixtures and controls with occupancy sensors throughout the terminal
- Installing HVAC controls
- Using interior finishes with materials made of recycled content and low volatile organic chemicals (VOC) paints, adhesives, carpets, and sealants
- Using ultra-low-flow plumbing fixtures in restrooms with provisions to convert the toilet and urinal fixtures to reclaimed water when it becomes available to LAX

7 LAWA website: http://www.lawa.org/uploadedFiles/LAXDev/News_for_LAXDev/TBIT%20Renovation%20Interior%20Improvements%20%20-%20FactSheet.pdf

8 LAWA website: http://www.lawa.org/uploadedFiles/LAXDev/News_for_LAXDev/NewTBIT%20Project%20Overview%20-%20FactSheet.pdf

TBIT, regarded today as the "crown jewel" at LAX, can now accommodate 4,500 passengers per hour, up from 2,800 passengers – a 60% increase in capacity. In keeping with the desire to promote a sense of Los Angeles at LAX, the new architectural profile of TBIT reflects the Pacific Ocean's waves lapping on the Los Angeles shores.

Since 2009, TBIT has garnered many awards[9] from such organizations as:

TBIT ARCHITECTURE, ENGINEERING, CONSTRUCTION MANAGEMENT, CONCESSIONS, AND OTHER FIELDS

- 2009: Westside Urban Forum
- 2010: Executive Travel Magazine National (silver award for "Best Domestic Airport")
- 2012: Bentley International and Engineering News Record
- 2013: Los Angeles Business Journal-California, Future Travel Experience Awards, Los Angeles Business Council, American Institute Architects/Los Angeles
- 2014: Airport Revenue News awards (TBIT concessions), Engineering News Record (ENR) (Westfield TBIT concessions) , and Engineering News Record (Roger Johnson, Deputy Executive Director, LAWA, for the Airports Development Group (ADG))

TBIT INTEGRATED ENVIRONMENTAL MEDIA SYSTEM (IEMS)

- 2013: ICON Awards (interior)
- 2014: American Advertising Federation Los Angeles ADDY awards (Best in Show (Digital Kitchen)); InAVation Awards; and Numix Award (Canada) for experiential cultural production. Among LAWA's award recipients are Moment Factory (multiple awards) for innovation, technology, creativity, digital installation, live design, and architectural entertainment; and Moment Factory, MRA/Sardi, SMI (multiple awards) for graphic design, permanent Installations, global design, and international category (InAVation)

Other Capital Improvements

In addition to the two TBIT improvement projects, LAWA made significant strides with its CIP and other aspects of the Modernization Program at LAX, combined with other improvements at VNY and ONT.

- LAX built the Central Utility Plant (CUP) while continuing to operate the old plant. This project was the first design-build contract awarded in the City of Los Angeles, and required 9 miles of new pipes and 23 new equipment rooms. It was completed under budget. The CUP was awarded LEED Gold status, given its many new enhancements for energy efficiency and conservation.
- LAX and ONT successfully coordinated the build-out of space as needed for required concessions improvements.
- VNY completed the Redevelopment Plan and runway improvements to improve service.

LAWA HAS ESTABLISHED BUY-BACK AGREEMENTS FOR LAX'S TERMINAL ASSETS.

LAWA is working to buy back airline terminal assets to encourage terminal development and modernization. LAWA restructured many airline terminal lease agreements to accelerate badly needed terminal improvements and better manage the financial risks of these projects. The current renovation to Terminal 1, involving Southwest Airlines, is an example of this improvement. As a result, LAWA has been able to develop a unified strategic grasp of terminal directions and future renovations. This strategic grasp was recently demonstrated by Delta Airlines' Letter of Intent to rebuild Terminals 2 and 3 into a unified facility.[10] If this major realignment of airline leaseholds occurs, it could result in a more modern and efficient airport.

LAWA HAS IMPLEMENTED PROCESS IMPROVEMENTS TO SUPPORT ITS OPERATIONS AND ITS CAPITAL IMPROVEMENT PROJECTS.

As testimony to the effectiveness of LAWA's operational and maintenance efforts, the Federal Aviation Administration (FAA) found zero discrepancies during its CFR 139 FAA annual airfield inspection at LAX – a remarkable accomplishment that few airports achieve.

This accomplishment was due, in part, to process such changes and improvements as:

- LAWA's Airports Development Group (ADG) prepared Program Status Reports (PSR) monthly on all construction projects and shared them with LAWA executives, Board of Airport Commissioners (BOAC), and the Office of the Mayor to increase transparency and coordination efforts.
- LAWA created the Construction and Logistics Management (CALM) team to monitor historic spend rates (averaging $4 million per day).
- LAWA developed coordination tactics and daily reports to handle shut-downs, increasing coordination and minimizing impact to guests.
- LAWA's Capital Programming, Planning & Engineering Group (CPPEG) developed guidebooks and process flows to improve consistency and standardization across the organization, including:
  - New CIP process flow and standard form creation
  - Policies and Procedures Guidebook
  - Project Approval Process and Design and Construction Handbook
- LAWA established a CIP, strengthening planning capability through a biennial process, starting with its first Open Call in 2012 and publication of the FY 2014-2018 CIP. The CIP helped to earn the bond rating agencies' confidence.

9 LAX is Happening, "Facts about Modernizing LAX," LAWA, November 2014 http://www.lawa.org/uploadedFiles/LAXDev/News_for_LAXDev/Industry%20Awards%20-%20FactSheet.pdf

10 Source: Multiple media sources, including https://www.flightglobal.com/news/articles/delta-inks-deal-for-major-terminal-move-at-lax-420660/

- Note: KH has also identified the need, discussed in Chapter I.5, to continue to define the CIP to cover more years moving forward.

- Two LAWA organizations – Information Management & Technology Group (IMTG) and Facilities Maintenance & Utilities Group (FMUG) – implemented Maximo software for maintenance operations, which allows for better and more efficient tracking and planning of routine and preventive maintenance and better estimating of staffing allocations.
- FMUG defined and published LAWA's first Facilities Management Handbook, which includes policies, conventions, guidelines, and performance measures for staff responsible for planning, construction, acquisition, operation, and maintenance of facilities.
- LAWA enhanced the pavement management system across all airports.
- LAWA's Commercial Development Group (CDG) improved its management of Requests for Proposal (RFPs), leading to faster implementation of concessionaire improvements and shorter timelines to increased revenues.
  - Note: KH has recommendations for improving procurement in Chapters I.5 and II.5.

Financial and Commercial

LAWA HAS MADE SIGNIFICANT FINANCIAL STRIDES SINCE 2008 TO INCREASE AND SECURE REVENUES AND MANAGE OPERATING COSTS ACROSS ALL AIRPORTS.

Through a combination of initiatives, LAWA Finance has continued to manage and improve its financial picture.

Maintained AA senior lien bond ratings. Fitch Ratings recently assigned an 'AA' rating to LAWA for $317 million in senior revenue bonds series 2015D and 2015E. Fitch also affirmed its AA rating on $3.31 billion parity senior revenue bonds, and its AA-rating on LAX's $797.3 million subordinate revenue bonds.[11] Continuance of the AA rating is vital for LAWA to embark on its Second Modernization Program, discussed later in this IEA Survey Report. Chapter II.4 on "BSC – Finance" discusses bond ratings in greater depth.

Senior Lien Bond Ratings

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Fitch Ratings	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA
Moody's Investor Service	A3	A3	A3	A3	A3	A3	A3	A3	A3	A3
S&P	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA

Issued bonds. LAWA issued nearly $4 billion of bonds to support LAX modernization, outlined in the CIP.

11 http://www.marketwatch.com/story/fitch-rates-lax-ca-airport-sr-rev-bonds-aa-affirms-sr-and-sub-rtgs-outlook-stable-2015-10-21

Improved debt service. To reduce interest costs and debt service needs when issuing bonds for the CIP, LAWA improved investor relations by revamping its website to make financial information more available and transparent. To preserve flexibility in the use of revenue sources, Finance employed accumulated Passenger Facility Charge (PFC) restricted cash balances to reduce debt service demands on discretionary revenue sources.

Increased revenues. Strengthened revenue streams come primarily from two sources:

- New rate agreements with airlines
- New concessions agreements, which also ensure better airline relationships and improved passenger experiences; specifically:
  - LAX awarded concessions at Terminals 1, 2, 3, 6, and TBIT to Westfield and sold packages for Terminals 4, 5, 7, and 8.
  - ONT extended concessionaire agreements and negotiated a 7-year deal for parking and rental car shuttle services.

Reduced or contained operating costs. Through organizational changes, process improvements, and active cost control, LAWA has managed operating costs better at its airports.

- LAX managed operating costs at near-inflation levels, despite significant passenger growth.
- ONT decreased operating costs at ONT by 25% to 30%.
- VNY reduced costs and increased tenant revenue and activity to largely eliminate subsidies. For example, VNY negotiated a new Fixed Base Operation (FBO) and evicted non-paying tenants to make room for new tenants.
- PMD closed airfield operations since it was a money-losing proposition ($232 subsidy per passenger per trip).

Other initiatives included:

- Implementing an Owner-Controlled Insurance Program (OCIP) for the provision of Workers' Compensation and liability insurance during the second phase of the most recent modernization
- Employing automated "3-way match" of Vendor Invoice Management and Automated Clearing House (ACH) payments, which reduced cycle time for vendor payments, thereby improving LAWA's cash flows and vendor relations, and strengthening LAWA's position when negotiating future costs
- Reducing the FAA cycle time for approval of PFC funding applications from 18 months to 9 months by working closely with LAWA and FAA staff, effectively using restricted cash balances and future restricted receipts to preserve flexibility in using discretionary revenues

Airport Response Control Center (ARCC)

LAWA HAS IMPROVED ITS DAILY OPERATIONS AND EMERGENCY MANAGEMENT FUNCTIONS.

The design and implementation of the Airport Response Control Center (ARCC) at LAX was a major achievement that has strengthened LAX's ability to manage daily operations and emergencies. The ARCC includes LAWA staff members from operations, maintenance, traffic, parking, security, and law enforcement; these LAWA staff members are supplemented as needed by Los Angeles Department of Transportation (LADOT) staff. They work together to respond to day-to-day operating needs at LAX across functional areas. The ARCC has access to significant real-time data that allows it to anticipate and respond to arrival and departure peaks through sophisticated technology, including:

- Arrival and departure aircraft and passenger counts
- Live video of Central Terminal Area (CTA) and airfield conditions
- Real-time displays of aircraft locations and movements

The design and implementation of the ARCC at LAX was a major achievement that has strengthened LAX's ability to manage daily operations and emergencies. The ARCC has significant real-time data that allows it to anticipate and prepare for incoming and outgoing traffic peaks via:

- Arrival and departure aircraft and passenger counts
- Live video of CTA conditions
- Real-time displays of aircraft locations and movements

The colocation of multiple, formerly disparate, functions under a single duty manager allows for more efficient and optimized responses, ensuring operational effectiveness and a better guest experience. To support the ARCC and other operational needs, LAWA established a 24/7 Airport Operations Duty Staff presence.

Adjacent to and included in the ARCC is the Department Operations Center (DOC), which is activated to support LAX responses to major incidents, significantly improving emergency management preparedness and the safety and security of the airport. As a result, LAWA was able to more rapidly and effectively implement a coordinated response to the November 1, 2013, shooting at LAX.

The building of the ARCC itself was a collaborative effort, involving Airports Development Group (ADG) in the physical structure and IMTG as the project manager for the installation and implementation of the IT systems and communication links that are the backbone of the ARCC. IMTG dedicated more than 20 full-time employees to the effort. Input from stakeholders across functions helped to align needs and improve the ARCC's effectiveness.

LAX Air Services and Guest Experience

LAWA HAS ADDED AIRLINES AND EXPANDED THE NUMBER OF INTERNATIONAL DESTINATIONS AT LAX.

LAX today has 72 non-stop and 1-stop international cities served in 40 counties. During 2014 and 2015, LAWA added 17 non-stop international destinations and 5 new airlines at LAX:

- **New international destinations:** Abu Dhabi (United Arab Emirates), Belize City (Belize), Copenhagen (Denmark), Liberia/Guanacaste (Costa Rica), London-Gatwick (United Kingdom), Monterrey (Mexico), Oslo (Norway), Stockholm (Sweden), Addis Ababa (Ethiopia), Bogota (Colombia), Dublin (Ireland), Managua (Nicaragua), Montego Bay (Jamaica), Jeddah (Saudi Arabia), Riyadh (Saudi Arabia), Nanjing (China), and Osaka (Japan).
- **New airlines:** Saudia, Etihad, Norwegian, Ethiopian, and Avianca Airlines

This expansion required coordinating the efforts of operations, badging, permits, and real estate to simplify adding new service. Chapter I.4 on "Guest Experience" elaborates further on the importance of air services development – travelers want to use airports that have flights to places they want to go to and at times they want to travel. Moreover, having multiple airlines provide travelers with more options in the event they have cancellations or miss flights and can help keep fare prices stable.

LAWA HAS BEEN WORKING ON ENHANCING THE "GUEST EXPERIENCE" FOR BOTH PASSENGERS AND "MEETERS AND GREETERS" AT LAX.

Mayor Garcetti established "Guest Experience" at LAX as a priority for LAWA in early 2015. The purpose of the Guest Experience initiative was to: *"…fuel customer service, cultural change, and foster a guest experience ethic among all who work and do business…"* at LAX.[12] The term "guest" includes both passengers as well as individuals who come to LAX as "meeters and greeters" of passengers.

In response to the Mayor's initiative, LAWA assigned responsibility for Guest Experience to a manager, who formed a cross-disciplinary working group of 25 executives and managers. The working group participated in a three-day workshop, began to define Guest Experience standards, developed the LAXceptional Xperience brand, and discussed objectives. Chapter I.4 elaborates further on the working group's efforts; KH worked with this working group to develop the Guest Experience Balanced Scorecard (BSC), contained in Chapter II.3.

Other efforts to enhance the guest experience include:

- LAWA modernized the terminals and concessions at LAX, including dining and retail offerings that reflect LA's culture, cuisine, and lifestyle, as mentioned earlier.

12 Memorandum from Barbara Yamamoto, Guest Experience Team, to all LAWA employees, May 27, 2015.

- LAWA worked with the Transportation Security Administration (TSA) to reduce wait times and shorten lines through security checkpoints.
- LAWA created a therapy dog program that has been established as an industry best practice.
- LAWA improved and enhanced its Public Art and Exhibition Program at LAX with an increased focus on local artists; several news articles and public radio stations have showcased and complimented the exhibitions.

Recognizing the progress made by LAWA and its tenants:

- TBIT's Star Alliance Lounge received 27 awards and was voted the best Alliance lounge by Skytrax, improving TBIT's luxury and international competitiveness. Serving 13 Star Alliance carriers and managed by Air New Zealand, the lounge offers space for approximately 400 business class and Star Alliance Gold passengers, with an exclusive area for first class passengers.
- In April 2015, Condé Nast Traveler acknowledged the Virgin Atlantic Clubhouse at LAX as reflecting Los Angeles living.

Environment

LAWA CONTINUES TO FOCUS ON MITIGATING ITS ENVIRONMENTAL IMPACT.

LAWA has prepared Environmental Sustainability Reports since 2008 as part of its public accountability. LAWA's Environmental & Land Use Planning staff members are developing a new and more coherent approach to environmental sustainability and the environmental reality of LAWA's facilities. This approach expands the original focus on compliance with regulations and the production of required Environmental Impact Reports (EIRs). The LEED Certifications for TBIT and CUP improvements, discussed earlier, are evidence of this new proactive strategy. Chapter I.3 discusses LAWA's environmental responsibility further.

In addition:

- LAWA awarded $90 million in sound insulation grants to local jurisdictions for the noise insulation program in FY 2014-2015.
- LAX incorporated environmental responsibility into the Specific Plan Amendment Study and LAX Northside Land Use Design Guidelines.

Technology

LAWA HAS ENHANCED ITS TECHNOLOGY CAPABILITIES SINCE 2008.

IMTG has supported LAWA organizations and operations by developing critical IT infrastructure to support organizational efficiency and effectiveness (e. g., business systems (SAP, Maximo); unique airport systems (e. g., badging, airport police, and AARC); and the airport network of fiber optics). Since 2009, IMTG has completed more than 70 projects; notable projects were done in collaboration with LAWA clients. Significant improvements include:

- ***Maximo and ARCC*** (already cited)
- ***CCTV.*** IMTG replaced an antiquated analog Closed-Circuit Television (CCTV) system with a modern, digital camera storage and management system, one of the largest expansions of any airport in the world, involving more than 3,000 cameras covering more than 5-million square feet of terminal space, enhancing LAWA's safety and security posture.
- ***Document management.*** IMTG implemented a LAWA-wide document management system, including SharePoint and a new Intranet.
- ***Data center.*** IMTG implemented a major data center and disaster recovery replacement strategy, ensuring LAWA has redundancy and protection in the case of a major natural or man-made disaster.
- ***Finance.*** Finance's SAP software, the enterprise financial system at LAWA, was upgraded to the current version supported by the vendor.
- ***Payroll.*** LD-time was implemented to reduce staff effort in payroll processing and reconciliation, thereby freeing staff resources to focus on analysis and control rather than manual timesheet entries.
- ***Multiple systems improvements.*** IMTG has improved LAWA's dispatching for the Law Enforcement & Homeland Security Division, terminal operations systems (TASS) at TBIT, LAX's Automatic Vehicle Identification (AVI) system,[13] Geographic Information System (GIS) mapping system, and VNY FlyAway parking system.

IMTG reports on its IT initiatives in its organizational strategic plan. IMTG created a Technology Innovations Officer position to test new, cutting-edge technologies at LAWA.

IMTG has received industry recognition of LAWA's cybersecurity, earning 11 awards (from Government Technology, ICMG, Computerworld Magazine, Government Security News, Government Technology, IT Security, Government Computer News, and the Center for Digital Government) between 2009 and 2015.

13 AVI is a system of GPS sensors and supporting hardware and software that allows the precise tracking of vehicles on roadways.

Procurement

PROCUREMENT HAS MADE STRIDES IN IMPROVING ITS OPERATIONS.

Procurement has a number of accomplishments:

- Procurement worked with the Los Angeles City Council and BOAC to increase the Chief Executive Officer (CEO) authority to award multi-year contracts up to $150,000 for the purchase of Goods, Equipment, and Non-Professional Services (GENPS), thereby improving pricing and reducing administration costs and turnaround time for 60% of all contract awards.
- Procurement created a Designated Contract Administrator (DCA) function within LAWA divisions and conducted multiple training sessions to improve the contracting process and compliance with procurement policies and procedures.
- The Small Business Enterprise (SBE) program was integrated into the procurement process to track LAWA SBE usage and encourage community economic development. LAWA exceeded departmental goals for the first two years.
    - Note: The mandatory SBE program was an outgrowth of the Good Faith Effort for the Minority Business Enterprise (MBE)/Women Business Enterprise (WBE) outreach program. Unlike the MBE/WBE program, which only called for a good faith effort, the SBE program requires the SBE goals to be met or exceeded.
- A Procurement Manual was developed and placed online to improve compliance.
- Procurement reports 100% compliance with the administrative requirements in all procurements.

People and Structure

LAWA LEADERS AND KEY STAFF HAVE BEGUN TO FOCUS ON HUMAN RESOURCES-RELATED ISSUES.

LAWA faces several challenges in ensuring that it recruits, develops, and retains the best staff to position itself to address its challenges today and into the future. One of its greatest challenges is staffing.

Attendance. To help with staff availability, LAWA has designed and administered an attendance management program that incentivizes good attendance. In the fourth quarter of 2010, LAWA's Human Resources Services Division (HR) began monitoring the percent of employees who were absent from work more than six times per year or more than 96 hours per year. Employees who exceeded these thresholds were placed on the "Attendance Deviation List," because they demonstrated high rates of absenteeism.[14] The list tracks attendance rates, by division, including the number of employees' records reviewed, percent in compliance, and percent on attendance development.

14 Note: Not captured on the Attendance Deviation List are employees who are absent but are on an approved Worker's Compensation or FMLA leave list.

At the time of the initial list (2010), 30% of LAWA employees were on the list. By the first quarter of 2011, the percent had dropped to 28% and has been declining since then. As of December 2015, 16% of the LAWA city employees are now on the Attendance Deviation List, which means more employees are reporting to work regularly.

Sworn officers. The Law Enforcement & Homeland Security Division now uses the Los Angeles Police Department (LAPD) Academy in its training, which:

- Reduces costs
- Provides effective training
- Improves coordination and communication when the two departments are working together

The Law Enforcement & Homeland Security Division has also contracted to obtain confidential counseling for its sworn officers, helping them to better cope with the stresses of their work. In addition, Airport Police has implemented a Rolling Recruitment program to maintain force levels, reducing the need to fill key posts with overtime assignments or leave them unfilled.

Employee training and development. LAWA's HR has worked on a number of initiatives to improve the development of LAWA's talent:

- LAWA has implemented an automated performance management system.
- HR offers professional coaching services to LAWA management staff members to help improve team effectiveness.
- HR's training unit has launched well-received training courses. For example:
    - A 6-week Supervisor's Toolkit course received excellent ratings, with demand exceeding capacity (discussed further in Chapter II.5).
    - HR has trained existing supervisors and is including staff interested in becoming supervisors. This approach improves individual supervisory effectiveness, and also promotes managerial consistency across LAWA.
    - HR has implemented in-house training and a team-building retreat day, along with "HR Employee of the Month," to improve HR cohesiveness and effectiveness.

LAWA HAS MADE ORGANIZATIONAL ENHANCEMENTS TO ENHANCE COLLABORATION.

Some of the organizational enhancements are:

- LAWA integrated functions into matrix structures. For example, IMTG and FMUG staff members are assigned to the Operations, Maintenance, & Emergency Group (OMEG); Law Enforcement & Homeland Security and FMUG staff members are assigned to ONT and VNY, deploying critical resources closer to users.
- LAWA assigned Engineering staff to CPPEG to improve organizational capacity to identify new projects and begin needs-based assessments of capital project proposals throughout design and completion, thus reducing design costs associated with construction.

- LAWA integrated Purchasing and Contracts into one organization, streamlining their processes and increasing efficiency.
- The Facilities & Technical Services Division (FTSD), which is part of FMUG, has remained unchanged organizationally, but has developed a stronger collaborative and working relationship with ADG.

Metrics

SOME LAWA DIVISIONS ARE NOW USING PERFORMANCE MEASUREMENTS TO MONITOR OPERATIONS AND OUTCOMES.

A number of LAWA divisions have developed their own performance measurements:

- Staff working for the Chief Financial Officer (CFO) and Comptroller can extract extensive financial data, routinely produce financial reports, and monitor financial performance.
- LAWA's produces monthly Traffic Comparison (TCOM) reports from its Revenue Asset Management System (RAMS). The traffic comparisons include month-to-month and year-to-date (YTD) measurements on passenger traffic (by domestic and international passengers, by scheduled carriers/scheduled commuters/charter, and by terminal); air cargo (freight and mail); and aircraft movements (take-offs and landings). These metrics are further refined, by other indicators (e. g., departures, arrivals, and transits; passenger traffic by terminal and airline; and LAX airline market share).
- ADG uses Prolog and other tools to develop detailed monthly progress reports on its Modernization Projects, which it shares with LAWA executives, BOAC, and City officials.
- In an effort to improve the capability of managing revenues, CDG prepares monthly statistics of revenues, by concession type and terminal, for monitoring performance internally, including trend data, year-over-year comparisons, charts, and comments for anomalous or outlying reductions or increases.
- As part of the ARCC, a wide range of operations, maintenance, traffic, parking, security, and law enforcement data sources were centralized and systematized into dashboards and reports to better manage daily operations and CTA congestion.
- The Law Enforcement & Homeland Security Division produces a wide variety of mandated statistical reports, including Part 1 Crimes (murder, rape, robbery, aggravated assault, burglary, motor vehicle theft, larceny-theft, and arson). Airport Police also maintain a wide variety of information regarding the use of its resources, including budget, bi-weekly overtime, absences, use of force, and contacts with the public (Incident Reports).
  - The division developed geographic crime reports used to shape law enforcement response and reduce crime.

  - Note: Pacific Division and West Traffic Division report and LAPD's facilities record some of the arrests, motor vehicle accidents, and motor vehicle citations.
  - In addition, Airport Police reports a variety of airfield violations, including accidents and traffic citations, independently of LAPD.
- IMTG, as part of its organizational strategic plan, developed and publishes a set of IT performance measurements to better manage its organization and projects.
- In 2015, FMUG implemented Maximo, which generates reports on work orders and preventive maintenance needs.

As discussed further in Chapter II.1, however, LAWA lacks an integrated and holistic approach to performance measurements.

Other Accomplishments

LAWA'S OTHER ACCOMPLISHMENTS ARE NOTEWORTHY, BUT TOO LONG TO HIGHLIGHT.

This IEA Survey Report cannot possibly list all of the accomplishments at LAWA since 2008, but did want to highlight the most significant ones. LAWA has many other noteworthy accomplishments, such as:

- ***Internal Audit.*** LAWA's Internal Audit staff supported the City Attorney in its concessions audit and completed risk analysis, improving risk management.
- ***Parking system equipment.*** CDG replaced the parking system equipment in the CTA garages and Lot C as part of its new Parking Access Revenue Control System (PARCS). PARCS improves revenue control, transaction speeds, and overall management.
- ***Master Conditional Use Permit***. LAX completed the City's largest LAX Master Conditional Use Permit Application (200+ applications) and instituted a web-based tracking process to assist and expedite LAX Tenants through the City of Los Angeles approval process for concessionaire alcohol licenses.

I.2: STRATEGY AND STRUCTURE

This chapter presents a strategic framework for a performance management system, using a Balanced Scorecard (BSC) approach linked to Los Angeles World Airport (LAWA)'s priorities. It also highlights structural issues that should be addressed to ensure that the organizational structure aligns with LAWA's strategic direction. The strategic framework outlined in this chapter is the foundation for developing BSCs at LAWA, discussed further in Part II of this 2016 Industrial, Economic, & Administrative (IEA) Survey Report.

FINDINGS AND RECOMMENDATIONS

Strategic Framework

RECOMMENDATION I.2.1: LAWA WOULD BENEFIT FROM A STRATEGIC FRAMEWORK FOR DEFINING PRIORITIES, WHICH IT SHOULD THEN MEASURE AND IMPROVE.

KH believes that LAWA's vision and strategy for its future should guide LAWA executives in implementing real and lasting improvements in LAWA's performance. Such a framework balances short-term cost reduction with the need to ensure LAWA has the capacity to achieve strategic goals. KH advocates for changes that reflect both an appreciation of LAWA's long-term goals and an analysis of its current operations.

LAWA lacks a strategic-planning framework for moving forward.

This approach typically enables KH to focus on how sound the current strategy is, and whether LAWA has the organizational capacity to realize that strategy. Unfortunately, at the time of the 2016 IEA Survey, LAWA did not have a current strategic plan, vision statement, or formal strategic priorities to serve as guidelines for the KH team during the IEA Survey.

Finding. Beyond the modernization initiatives, LAWA lacks strategic priorities that can serve as the foundation for a performance management system.

Planning is never easy. It is particularly challenging in high-profile government agencies, such as LAWA, with diverse stakeholders. LAWA faced more than 15 years of community and political resistance to the master-planning process needed to address essential capital improvements. Starting in 2008, LAWA management's focus has been on LAX modernization efforts, which served as LAWA's primary strategic driver: carry out the rebuilding of TBIT. LAWA's stated vision in 2009 became: *"Fulfill the ideal purpose of each of our airports and, in so doing, honor our promise to rebuild LAX as America's premier international gateway."*

Its mission statement was to: *"Realize this vision by building positive relationships with our customers and stakeholders; creating an effective, efficient, and nimble organization; and designing, funding, and rebuilding facilities equal to the needs of the most demanding domestic and international passengers and the airlines that serve them."*

Today, it is difficult to locate LAWA's vision or mission; neither is posted on LAWA's website nor prominent in any of LAWA's documents. Several LAWA divisions have mission statements posted on the LAWA website, but these missions do not align with each other or with an overall LAWA mission statement.

Prior IEA Surveys encouraged LAWA to develop Strategic Plans. In response, LAWA adopted Strategic Plans until 2008. LAWA recently prepared a document called a "Strategic Plan" (July 8, 2015, but it served as more of a transitional plan from the prior Chief Executive Officer (CEO) to the new CEO. The report was prepared by a consulting firm with input from selected LAWA executives, and was not vetted with key stakeholders, Board of Airport Commissioners (BOAC), City officials, or within LAWA. It does not fulfill the promise of its title.

The challenge for KH has been to develop a meaningful performance measurement system in the absence of clear strategic priorities.

Proposed Actions. LAWA should identify critical strategic business priorities for the next three years.

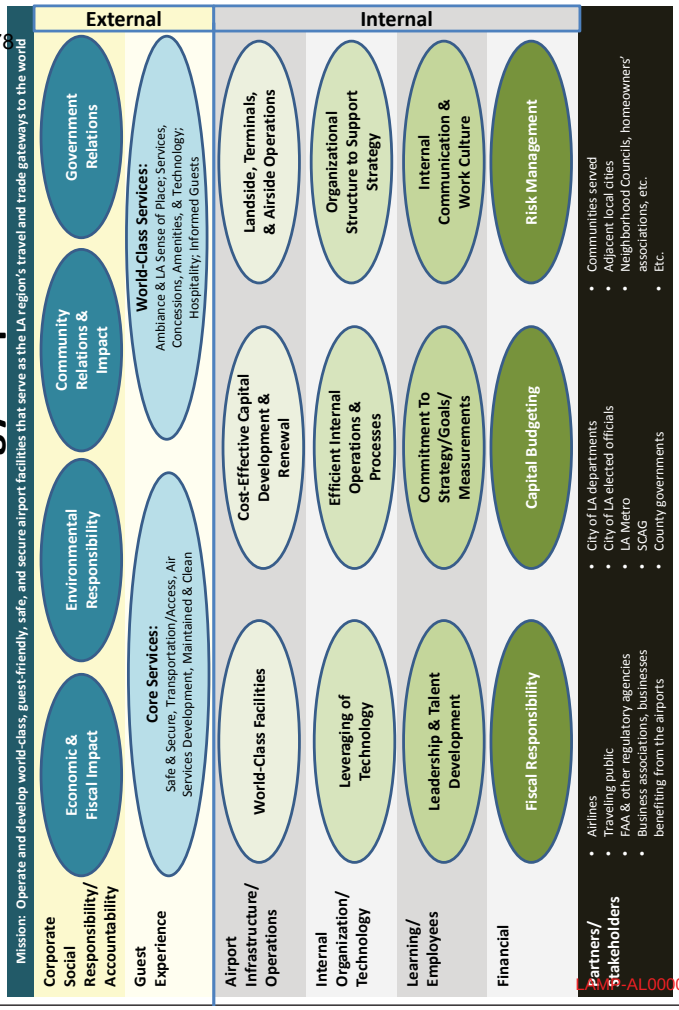
As part of this IEA Survey, KH prepared a pro forma Strategy Map to provide an initial strategic framework for LAWA's performance management system. During the IEA Survey, KH vetted and refined the Strategy Map with the Joint Administrators, LAWA executives, LAWA working groups, elected officials, and others. It serves as a straw model for purposes of this IEA Survey, but deserves wider discussions with BOAC, City officials, and additional LAWA employees and stakeholders before it is amended and adopted.

LAWA's highest purpose is placed at the top of the strategy map. KH began with a simplified mission for LAWA to: *"Operate and develop world-class, guest-friendly, safe, and secure airport facilities that serve as the LA region's travel and trade gateways to the world."*

The Strategy Map has both ***an external focus*** on what LAWA needs to do to meet the needs and expectations of its stakeholders and partners, and ***an internal focus*** on what LAWA needs to do to achieve the desired changes externally.

External priorities. The external priorities proposed are:

- **Corporate Social Responsibility (CSR).** LAWA should execute its mission in accordance with CSR principles. CSR is an approach for improving public accountability, discussed in Chapter I.3, and addresses economic, environmental, and community impact, requiring collaborative work with other governmental agencies, discussed in Chapter I.3 and Chapter II.2.
- **Guest Experience**. Mayor Garcetti has emphasized the importance of LAWA shifting from a passenger or customer focus to a guest experience perspective, serving guests (passengers, meeters, and greeters). LAX's Guest Experience initiative encompasses core services, which must be done at any modern airport, and world-class services, which distinguish the highest-rated airports around the world, discussed in Chapter I.4 and Chapter II.3.



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Internal priorities. Internal priorities are important for achieving the external priorities and include:

- **Airport Infrastructure/Operations.** LAWA must design, build, operate, and maintain world-class facilities and operations to ensure a great guest experience.
- **Internal Organization/Structure.** LAWA must build the internal organization, processes, and procedures to deliver the core services and world-class services for the best guest experiences. To do this, LAWA must leverage technology, nurture expert leadership, establish appropriate processes, and develop innovative solutions to ensure that the organization operates effectively and efficiently.
- **Learning/Employees.** To be world-class and address CSR challenges, LAWA must attract, retain, and develop the best talent in the industry. To do this, LAWA must invest in its people.
- **Financial.** Underlying all of these efforts is LAWA's commitment to maintain a strong fiscal posture. As a proprietary department in the City of Los Angeles, LAWA pays for all of its activities through revenues generated at the airports. Financial ramifications entail:
  - *Fiscal responsibility:* Strategy-guided budgets, policies, and plans; cost management; and diversified revenues (landside, terminals, and airlines (PAX/cargo))
  - *Capital management:* Capital budgeting and financing (bond rating and multi-year plans)
  - *Risk management:* Risk auditing and risk identification and calibration

All of these internal priorities must also be executed in accordance with CSR principles, as discussed in Chapter I.3.

LAWA's partners and stakeholders. LAWA's key stakeholders are diverse and include:

- ***Direct beneficiaries of an airport,*** including airlines, guests (passengers, meeters, and greeters), and businesses operating at or near the airports (e. g., concessionaires, hotels, car rental companies, etc.)
- ***City of Los Angeles***, including elected officials and LAWA's sister departments
- ***Other governmental agencies***, such as the Federal Aviation Administration (FAA), Transportation Security Administration (TSA), Customs and Border Patrol (CBP), and other regulatory or airport-related agencies; LA Metro; County of Los Angeles; adjacent cities; and Southern California Regional Association of Governments (SCAG)
- ***Community groups***, involving nearby residents, communities served, Neighborhood Councils, homeowners' associations, chambers of commerce, etc.

Despite the diversity of these stakeholders and, at times, their conflicting stances on issues, LAWA must listen and be responsive to their concerns.

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PROPOSED ACTION STEPS

1. LAWA executives should define its vision, mission, and values for the coming years, particularly in light of the Second Modernization Program
   1.1. LAWA executives should present the vision, mission, and values to BOAC for adoption.
2. LAWA should adopt, at a minimum, a Strategy Map with defined priorities, objectives, and initiatives to achieve desired outcomes, and eventually formulate a full strategic plan
   2.1. KH has outlined proposed goals, linked to potential measurements, in Part II of this IEA Survey. The goals are broad and directional in nature.
   2.2. LAWA needs to review, refine, and adopt these goals.
   2.3. Once adopted, LAWA can establish objectives that are **S**pecific, **M**easurable, **A**chievable, and **R**elevant with **T**ime lines (frequently referred to as SMART objectives).
   2.4. LAWA should develop initiatives that tie to these measurable objectives.
3. LAWA should communicate the vision, mission, strategic priorities, and values within LAWA, with City officials, and with other stakeholders
4. LAWA should post the vision, mission, strategic priorities, and values within workplace sites as reminders to LAWA employees and externally for LAWA's stakeholders

Recommendation I.2.3 in this chapter and Chapter II.1 regarding "BSC Implementation" elaborate further on this recommendation.

LAWA Budgeting Linked to Strategic Priorities

This section emphasizes the importance of linking LAWA's budget to its strategic priorities. Chapter II.4 delves more deeply into the financial performance measurements and Financial BSC developed during this IEA Survey.

RECOMMENDATION I.2.2: LAWA SHOULD USE A MORE STRATEGIC APPROACH TO DEVELOPING ITS BUDGET.

A strategic-budgeting approach ties an organization's vision and strategic priorities and goals to the budget. It frequently involves a longer-time horizon than an annual budget, and provides guidance from an overall organizational perspective to inform the division and sectional levels so they can design initiatives that are in alignment with the overall organizational strategy.

Finding. LAWA uses a "bottom-up budget" process that allows divisions to determine what is important for their own areas, but not necessarily for the overall organization.

LAWA's current budgeting process is a bottom-up process, which does not come together until the details are reviewed at the Chief Financial Officer (CFO) and Chief Operating Officer (COO) levels.

Limitations of the bottom-up budgeting process. LAWA's "bottom-up budget" process is an approach frequently used in government. LAWA divisions prepare their own budgets to meet planned net expense goals. This approach has some limitations:

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- LAWA top management lacks a systematic way to monitor performance against predetermined goals, objectives, and measurements. They do not set SMART goals to be accomplished with budget dollars as a starting point.
- The Finance & Budget Division Manager and the CFO review detailed information for all budget submissions and assume primary responsibility for identifying gaps and overlaps.
- Opportunities for cross-divisional collaboration on initiatives may be missed.
- Lack of an adopted strategic plan precludes staff from tying budgets to strategic priorities.
- Divisions are not given an opportunity to present and "defend" their submissions.
- The bottom-up process does not have a top-down component that provides feedback to the divisions regarding why certain areas got funded over others.

LAWA does not share budgets across divisions. LAWA uses SAP's standard reports so that all divisions can view their own divisions/sections' actual expenses versus available budget. Budget staff members regularly review these "budget versus actual" reports for their assigned divisions and communicate concerns as necessary; however, the reports are not typically shared across divisions. Many LAWA activities require coordinated action by more than one division; failure to share these reports widely hampers the ability of divisions to adjust their activities to align with the progress of other divisions in the implementation of programs or projects.

SAP reports lack large dollar amount expenditures, making it hard to monitor costs. SAP provides "budget versus actual" reports; however, for large dollar line items (e. g., construction), budget amounts are released incrementally during the year. Therefore, the SAP budget amount is not always the annual budget amount. Hence, individual divisions sometimes develop custom reports, using SAP data (frequently in Excel spreadsheets), to explain their budget performance more clearly to managers and directors. Such customized reports become "shadow systems" to SAP residing on computers in various divisions.

Although many financial metrics are monitored, some additional ones should be added. For example, metrics are not regularly used to demonstrate the financial or operational benefits of significant budget expenditures. Chapter II.4 elaborates further on this area.

Proposed Actions. LAWA should improve its budgeting process with linkages to strategic priorities, policies, plans, and measureable outcomes.

LAWA should build on its budgeting process to make some specific enhancements that would help align the budget with its strategic direction. If the divisions understand the strategic priorities, they will be in a better position to build their budget submissions.

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PROPOSED ACTION STEPS

To link the budgeting process to strategic priorities, policies, and plans:

1. LAWA's CFO should develop a strategy-linked budgeting process that reflects expected outcomes and goals, under the guidance of BOAC, the CEO, and executive leadership.
2. The CFO should provide opportunities for divisions to present their budget proposals to a broader panel of non-financial executives.
3. The CFO should provide feedback regarding funding priorities and decisions made.
4. The CFO should incorporate construction and other large dollar amounts into the SAP reports to reduce the reliance on shadow systems.
5. The CFO should provide centrally prepared budget performance reports to BOAC for all LAWA units.
6. The CFO should share division budgets across LAWA.
7. The CFO should link the metrics in the BSCs to the budgeting process, discussed in Part II.

Such a strategic-budgeting approach will facilitate:

- Developing quantitative measures of what LAWA and its stakeholders can expect for LAWA's budget expenditures
- Linking budget resources and metrics to the achievement of LAWA's goals and strategic priorities
- Nurturing evidenced-based decision-making
- Encouraging inter-divisional collaborations
- Reporting in a consistent framework
- Increasing transparency with respect to LAWA's progress in accomplishing its goals

Performance Measurements Linked to Strategic improvements

RECOMMENDATION I.2.3: LAWA SHOULD IMPLEMENT A BALANCED SCORECARD (BSC) APPROACH AS A PERFORMANCE MANAGEMENT SYSTEM.

There's an old adage, *"what gets measured gets done."* This recommendation focuses on the best methods for developing a meaningful performance measurement system at LAWA. Part II expands on these concepts further and applies performance measurements to key areas at LAWA as models for further development across LAWA.

Finding. LAWA currently lacks an integrated performance management system for organizational units or groups.

As discussed in Chapter I.1 under "Strengths and Accomplishments," some LAWA divisions develop and monitor measurements for their internal use; however, the information is not widely shared or integrated into a LAWA-wide performance management system. Many of these measurements are isolated on shadow systems (e. g., Excel spreadsheets).

As discussed in depth in Chapter II.1, LAWA has several challenges in developing an integrated performance measurement system, including data limitations, lack of automation for compiling

statistical reports, data sharing constraints, lack of widely accepted common core measurements, and inability to easily retrieve needed information from the enormous databases with data to mine.

Proposed Actions. LAWA should develop a better understanding of performance measurement management to drive an evidence-based, decision-making culture.

During the IEA Survey, KH piloted the application of the BSC model to LAWA. In 1992, Robert S. Kaplan and David P. Norton began publicizing the BSC model through a series of journal articles and subsequent books. Today, it is a widely used because it strategically links performance planning with a measurement framework; BSCs:

- Translate vision into operational goals
- Design performance measures that track completion of strategic priorities
- Consider broader metrics (including customer service, learning and growth, and systems and processes) rather than just direct financial metrics that contribute to financial outcomes
- Communicate the vision by linking measurements to organizational performance, business planning, and feedback and learning
- Use feedback and learning mechanisms to adjust the strategy as needed

Much of KH's work in the past 15 years has involved in adaption of BSC concepts to governmental agencies. Part II of this IEA Survey Report presents the BSC models that KH developed as prototypes for LAWA. These prototypes were developed with the understanding that LAWA would build on their usefulness and expand the use of BSCs to all divisions.

The BSCs are tied to the Strategy Map. In the private sector, financial outcomes are typically the drivers and measures of success. Not so, in the public sector -- public agencies must focus on the public good. KH typically defines public outcomes as the ultimate goals and uses the financial perspective as an important factor for identifying the necessary financial resources to achieve the desired outcomes: economic, environmental, guest experience, and societal gains. Because the Strategy Maps depict cause-and-effect relationships, the BSC performance measurements are important in helping managers to diagnose and correct problems as they implement key strategies and identify key additions that emerge.

Using a BSC approach helps executives and managers to use data strategically. There are thousands of data points that are gathered regularly and used at LAWA. A BSC focuses the attention of an organization's leadership on the measurement of activities and outcomes that are most important to success.

KH collaborated with LAWA staff to develop BSC prototypes that can serve as models for the organization. Areas selected for this BSC pilot project were all cross-functional, supporting strategies and services that cut across the entire organization. The Joint Administrators and LAWA executives believed they were good areas for developing the BSC prototypes. LAWA will likely have additional strategic priorities once it defines them.

- The ***Corporate Social Responsibility (CSR) BSC*** includes metrics that will allow LAWA to assess and manage its environmental, community, and economic impacts to its neighbors, the City of Los Angeles, and the larger region.
- The ***Guest Experience BSC*** tracks baseline information associated with:
  - ***Core service indicators*** (safety and security, speedy access/transportation, flight schedules and cities/countries served, and airport cleanliness and maintenance)
  - ***World-class indicators*** (concession quality and amenities, hospitality, informed guests, and LA-featured ambiance)
- The ***Administrative BSCs*** focus on staff organizations that affect all divisions within LAWA. Human Resources and Procurement are tracking metrics that help them ensure that the people, goods, and services are available on a timely basis to provide for a well-run organization. Internal Audit supports public accountability and CSR.
- The ***Finance BSC*** reflects data associated with tracking LAWA's fiscal health, risk management for the airports, and financial functions operations.

To prepare the initial BSCs, KH focused on:

- Reviewing metrics currently gathered
- Identifying optimal performance measures
- Compiling sample measurements showing annual trends and LAWA-wide or LAX-wide trends
- Indicating the frequency at which measurements might best be gathered or reported (e. g., daily, weekly, monthly, annually)
- Indicating what measurements warrant further delineation (e. g., by terminal, time of day, or some other factors)

PROPOSED ACTION STEPS

To continue the development and expansion of the BSCs:

1. LAWA should adopt the BSC model for LAWA's performance management system.
   - 1.1. LAWA should build on the BSC prototypes in Part II of the IEA Survey Report, which outlines what steps LAWA needs to do to implement a complete BSC system
   - 1.2. LAWA should link the vision and Strategy Map to the measurements in the BSCs, discussed in greater detail in Part II.
   - 1.3. LAWA executives should require the development of BSCs in unit's that were not covered in this IEA Survey.
   - 1.4. LAWA executives should use metrics to justify new or changed initiatives.
2. LAWA should establish a unit – a BSC Office – to manage the BSCs, discussed in Chapter II.1.
   - 2.1. This BSC Office should monitor and communicate progress in achieving targeted improvements to the BSC measurements.

   - 2.2. The BSC Office should work with divisions in modifying the BSCs based on experience and changes in priorities and trends over time.
   - 2.3. LAWA should continuously work on developing more sophisticated metrics.
3. LAWA's Information Management Technology Group (IMTG) should develop technology to gather and integrate data, also discussed in Chapter II.1.

The BSC benefits are multiple. BSCs are tools that will:

- Translate vision and strategy into a performance management system for an organization
- Help manage operational issues and link operational performance measures with strategy
- Develop plans to address increases/decreases in workload
- Provide warning of emerging problems
- Track progress toward program objectives
- Highlight divisional strengths and successes
- Help staff members understand their contributions to the airport's operations and coordinate and monitor cross-functional process performance
- Track actual outcomes to test conventional wisdom and traditional solutions
- Increase transparency, public accountability, and insights

The greatest challenges in implementing BSCs (or any performance management system) are:

- Determining what to measure – a primary focus of the KH team
- Establishing how many measurements to track, and at what frequency
- Compiling high-priority metrics or data critical to effective decision-making
- Establishing targets for improvement
- Recognizing restrictions in the degree of control that LAWA has over what is being measured
- Instilling a culture that wants to use measurements for continually improving operations (as contrasted with being concerned that punitive actions will be taken if targets are not met)

Organizational Structure

RECOMMENDATION I.2.4: LAWA'S ORGANIZATIONAL STRUCTURE SHOULD BE DESIGNED TO REFLECT ITS STRATEGIC DIRECTIONS.

Finding. LAWA's current organizational structure misses opportunities for improved effectiveness.

Organizational Fragmentation (up until January 2016)

Just as form follows function in architecture, structure follows strategy in organizations. The organizational structure that has been in place for the last was designed to focus on the first Modernization Program, which is now completed.

During the fact-finding and analysis phases of the IEA Survey (June 2015 through December 2015), the KH team identified a number of management functions that were fragmented:

- ***Finance and accounting.*** CFO and Comptroller functions were separated, although coordinated action from both is integral to LAWA's success.
- ***Landside.*** ARCC is vital for coordinating landside and airside operations; however, LAWA lacked centralized management accountability for landside operations management.
  - The Commercial Development Group (CDG) managed contracts for parking operations, FlyAway services, and shuttle bus permits.
  - The Operations, Maintenance, & Emergency Group (OMEG) had some responsibility for Central Terminal Area (CTA) transportation; operations supervisors sometimes assumed a role in terminals and lots; and the ARCC coordinated responses to events in the terminals and within the CTA.
  - LAX Airport Police handled traffic on the roadways, including the ARCC.
  - Facilities Maintenance & Utilities Group (FMUG) addressed roadway conditions and repairs.
- ***Maintenance.*** FMUG reported to two Deputy Executive Directors (DEDs), responsible respectively for operations and support of capital projects. Differences in priorities were difficult to resolve below the level of the COO.
- ***Engineering.*** The structure and interfaces resulted in more complicated working relationships for the Airports Development Group (ADG) and Capital Programming, Planning & Engineering Group (CPPEG). There was no leader in place for Engineering.
- ***Procurement.*** As discussed in Chapter I.5, Procurement has a limited role in Requests for Proposal (RFPs) and Requests for Bids (RFBs), which does not reflect prevailing or best practices in public procurement oversight and monitoring.
- ***External relations.*** LAWA lacked an integrated and strategic approach to external affairs – community relationship; inter-governmental relationships, including City Hall; and public relations. Government Affairs and Public Relations were separate organizational units; community relations were handled elsewhere in the organization, primarily in Environmental & Land Use Planning under the Capital Programming, Planning, & Engineering Group (CPPEG). LAWA has ongoing working relationships with governmental agencies directly involved with the airports (e. g., FAA, TSA, and CPB). Its relationships with elected officials in City Hall and other City departments have not been as strong, which have impeded LAWA's ability to gain support for some of its initiatives within the City family.
- ***Business planning, and strategy.*** LAWA lacks organizational focus on how to strengthen its business through strategic or business planning, process improvements, and performance measurements systems and other accountability systems.
- ***Internal audit.*** Internal Audit was under a DED for Administration – four levels below BOAC – and lacked a reporting relationship to the COO, CEO, or the non-functioning BOAC Audit Committee, as discussed in Recommendation I.3.7.

During the IEA Survey, the KH team briefed the new CEO regarding the organizational fragmentation.

New Management Structure (January 2016)

On January 14, 2016, Deborah Ale Flint, LAWA CEO, issued a Memorandum to LAWA employees, regarding a new organizational structure to position LAWA as *"…a premier global gateway and regional economic driver."* She acknowledged LAWA's need to execute LAMP and the Midfield Concourse and continually upgrade its domestic terminals. She outlined four priorities:

1. Manage overall business strategy, guest experience, and external stakeholder relationships
2. Manage the delivery of LAWA's capital program
3. Operate the airport effectively and competitively
4. Ensure safe and secure airports for guests and employees

In support of these four priorities, the new structure consists of four executive areas:

- ***Chief Executive Officer (CEO)*** – focus on *"…strategy, stakeholder relationships and overall leadership,"* with an integrated external relations function under a Chief External Affairs Officer and a Guest Experience Director
- ***Chief Development Officer (CDO)*** – *"…responsible for leading and coordinating the planning and delivery of all elements of the LAWA capital program, including LAMP"* (i. e., APM, CONRAC, Intermodal Transit Facility (ITF), and CTA roadways), discussed further in Chapter I.4 on "Guest Experience"
- ***Chief Operating Officer (COO)*** – *"…responsible for leading and coordinating the management of all operational and administrative aspects of the LAWA enterprise,"* including an integrated landside operations, VNY, ONT, Facilities Maintenance, Air Service Development, Finance, Human Resources, and Procurement
- ***Chief of Security & Public Safety*** – continuation of responsibility *"…for leading and coordinating all aspects of Airport Police, homeland security and intelligence"*

The new structure was made effective on January 18, 2016, and addresses many of the structural improvements that the KH team had identified:

- Landside operations are now better integrated.
- Facilities Maintenance is now combined.
- Environmental programs are organizationally elevated.
- External relations are more integrated.
- Internal audit has higher visibility.

Proposed Actions. The CEO should continually enhance working relationships and hone the organizational structure to be responsive to LAWA's strategic directions.

The new organizational structure reflects the CEO's priorities, consolidates functions, and addresses the requirements for concentrated attention on the Second Modernization Program and airside operations.

Because the new structure is just now being implemented, KH references the names of the organizational units in place prior to the new structure in this IEA Survey Report.

PROPOSED ACTION STEPS

1. Once the new structure is in place, the LAWA executive team should ensure that:
   - 1.1. Improved teamwork and inter-divisional coordination occurs
   - 1.2. Opportunities to nurture innovation occur
   - 1.3. Accountability is embedded in the new structure
2. As LAWA fine-tunes its strategy, it may need to make further organizational refinements as part of continuous process improvements.
3. As LAWA implements other recommendations in this IEA Survey Report, it may identify additional changes that are necessary, such as:
   - 3.1. The creation of an office to manage the Balanced Scorecard and performance management system, discussed in Chapter II.1
   - 3.2. Acknowledgement that Corporate Social Responsibility (CSR), discussed in Chapter I.3, is everyone at LAWA's responsibility, combined with the potential need for an office to promote CSR initiatives and monitor and report on LAWA's economic and social impact, along with LAWA's environmental initiatives
     - 3.2.1. Note: LAWA's ethics function might be better positioned with CSR rather than with the Ombudsman, whose role may require protecting an individual where there is an employee-supervisor conflict and an imbalance of power.
   - 3.3. Enhancing Procurement's role to reflect best practices in the public and private sector by:
     - 3.3.1. Increasing Procurement's roles and responsibilities for better coordination, consistency, and compliance across LAWA
     - 3.3.2. Broadening and redefining the Procurement function to embrace supply chain expertise and approaches
   - 3.4. Organizationally consolidate finance, budgeting, financial reporting, and accounting into one Finance function

I.3: CORPORATE SOCIAL RESPONSIBILITY

This chapter discusses public accountability by applying Corporate Social Responsibility (CSR) concepts to Los Angeles World Airports (LAWA). The chapter covers LAWA's economic and fiscal impacts on the region, its environmental responsibility to the region, its impacts on neighboring communities, its working relationships with other governmental entities, and its responsibility to ensure transparency through more effective use of Internal Audit. Chapter II.5 delves more deeply into the CSR Balanced Scorecard (BSC) prototype developed during this Industrial, Economic, & Administrative (IEA) Survey.

INTRODUCTION

LAWA's Public Accountability Role

LAWA must continuously seek "best business practices" – developed in-house or proven elsewhere – to demonstrate to the public, to Los Angeles City officials, and to air transport operators and regulators that it is managing LAWA's assets and operations effectively, and is a strong partner in the economic success of the City and the region.

Because of this role, LAWA must continually strive to be a prudent steward of the airport assets, while ensuring the quality, safety, and convenience demanded by its global passenger base. As already cited, LAWA has many stakeholders: airlines, passengers, adjacent communities, airport-related businesses, and governmental agencies, including the City of Los Angeles. LAWA must constantly balance:

- ***Public trust.*** As a public agency, LAWA must continuously strive to maintain the public trust through transparency and accountability by demonstrating that LAWA managers and employees are acting responsibly in their decision-making, practices, and policies.
- ***Accountability to airlines.*** Because many costs incurred by LAWA are passed on to the airlines, there is an ongoing need for transparency in its operation and finances. The airline industry regularly experiences "booms and busts" that track overall economic cycles and fuel costs. During the difficult times, there have been multiple airline bankruptcies and mergers. Airlines treat terminal expenses as overhead costs that they attempt to minimize. All levels of airport costs are subject to intense scrutiny and insistent demands for further reduction. Airlines impose this scrutiny on their own operations, and expect no less from airport operators.
- ***Governmental relationships.*** LAWA is a governmental agency and must work closely with officials and other departments in the City of Los Angeles, as well as governmental agencies outside of City government, such as LA Metro, Federal Aviation Administration (FAA), Transportation Security Administration (TSA), and other agencies.

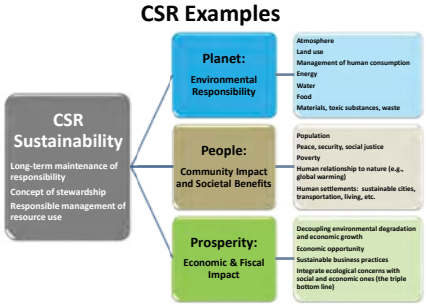
CSR Model

CSR emphasizes the role of organizations to monitor and ensure compliance with laws, ethical standards, and national or international norms. It emphasizes an organization's responsibility to: *"…the community and environment (both ecological and social) in which it operates."*[15] As a public agency, LAWA must ensure that its actions serve the public and social good, which may require it to go beyond the legal requirements to have a positive impact on the Los Angeles region in terms of the economy, environment, image, traveling public, airlines, employees, taxpayers, and the communities surrounding its airports.

The United Nations and other public sector organizations adhere to a Triple Bottom Line (TBL) or the Three Ps framework for evaluating CSR at higher social and moral levels.

- **Planet** refers to sustainable environmental practices.
- **Prosperity**[16] is the economic value created by the organization.[17]
- **People** refers to fair labor practices, the community, and region where the business operates.[18]

An organization adopting CSR principles measures the 3Ps over a period of time.



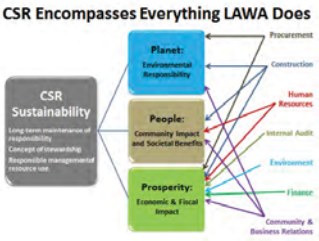
15 http://www.businessdictionary.com/definition/corporate-social-responsibility.html

16 Referred to as "Profit" in the for-profit world.

17 The Economist, http://www.economist.com/node/14301663, November 17, 2009.

18 Note: CSR "People" initiatives include both internal stakeholders (employees) and external stakeholders.

CSR encompasses everything LAWA does.
LAWA's Procurement Division helps with the region's prosperity, particularly when buying from local firms; it helps the planet when purchasing goods that are recyclable. Similarly, construction builds Leadership in Energy and Environmental Design (LEED)-certified buildings, which is good for the planet; creates jobs, which bolsters our regional prosperity; and builds a better airport as a social benefit for people – residents and travelers. Finance and Internal Audit focus on ensuring that the airport uses its resources prudently and in accordance with good governmental practices. The examples at LAWA can go on…



Consistent with the Three Ps is the Mayor's recently issued **Sustainable City pLAn**[19] (pLAn) for Los Angeles that focuses on:

- **Environmental** (Planet), *"protecting the Environment of LA ensures that we harness our natural resources efficiently and effectively, while providing a clean, healthy and safe City for present and future generations of Angelenos."*
- **Economic** (Prosperity), *"strengthening the Economy of LA ensures we can satisfy the basic need of jobs, housing, mobility, and resiliency in the face of external shocks."*
- **Equity** (People), *"building Equity in our community ensures all Angelenos have access to healthy, livable neighborhoods and strengthens a sense of collective ownership of our common future."*

The pLAn is made up of short-term (by 2017) and longer-term (by 2025 and 2035) targets in 14 categories that will advance LA's environment, economy, and equity.

FINDINGS AND RECOMMENDATIONS

CSR Principles for LAWA

RECOMMENDATION I.3.1: TO IMPROVE PUBLIC ACCOUNTABILITY, LAWA SHOULD EMBRACE CORPORATE SOCIAL RESPONSIBILITY (CSR) PRINCIPLES.

Finding. LAWA currently lacks formal corporate values and guiding principles about how it will conduct itself.

Corporate values, ethics statements, and CSR policies are underpinnings of organizations that promote social responsibility. Although LAWA has defined its values and ethics in the past, they have not been

19 Office of the Mayor, Sustainable City pLAn (pLAn), http://plan.lamayor.org/, April 8, 2015.

refreshed and reinforced in recent years. That does not imply that the organization is not ethical or socially responsible. Nevertheless, LAWA does lack a formally defined values structure that can provide employees, managers, and Board of Airport Commissioners (BOAC) with a framework on how they will conduct themselves and what factors need to be considered in decision-making and policy-making.

Moreover, other airports have begun to incorporate CSR principles into their value structures, decision-making, and operations. For example, Aéroports de Paris[20] emphasizes:

- Transparency, a code of ethics, and a fight against corruption
- Employee awareness
- Systematic surveys of the reputation of new partners
- Monitoring of progress in environment and social affairs, including its clients and airport managers, with an emphasis on sustainable development
- Access for its partners to attend training on environmental issues
- Promotion of investments and developments for environmental purposes (e. g., water treatment)
- A comprehensive external and independent evaluation of airport management every two years, starting in 2009 (non-financial and similar to the IEA Survey)

If LAWA embraces a CSR approach, it will be in the forefront of applying these principles, not only to a U.S. airport, but also within a LA City department.

To date, the majority of airports under Aéroports de Paris management have an ISO 14001 environmental certification (Amman, Liege, Algiers, 13 airports in Mexico, Cambodia, and Zagreb) and several others have received the Airport Council International (ACI) CO^2 certification (Airport Carbon Accreditation) to demonstrate voluntary carbon management.

Proposed Actions. LAWA should adopt CSR principles in support of its Strategy Map with targeted performance measurements in the near and longer term.

KH proposes that LAWA adopt a CSR orientation that focuses on the following priorities:

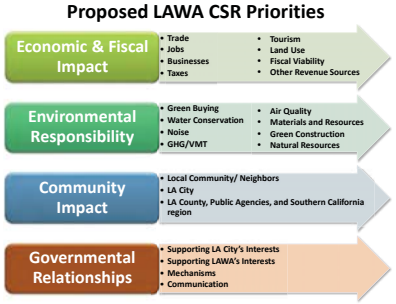
- **Economic and fiscal impact**, which ties in with "Prosperity" in the TBL as an economic engine for the Los Angeles region, aligned with strategies for economic sustainability
- **Environmental responsibility**, which ties in with the "Planet" in the TBL framework and in the Mayor's pLAn for a sustainable environment
- **Community impact**, which aligns with "People" and the Mayor's equity concerns in pLAn
- **Governmental relations**, which reflects the need for LAWA to cultivate strong relationships with BOAC, Los Angeles City departments and elected officials, and regulatory and other governmental agencies (FAA, TSA, etc.) to succeed

20 http://www.aeroportsdeparis.fr/en/group/group-strategy/expertise/management/corporate-social-responsibility

As a public agency, LAWA exists for the public good. Three of the public-good priorities – economic, environmental, and community impact – pose challenges to corporations and governmental agencies because sometimes they work at odds against each other. For example, jurisdictions have sometimes resigned themselves to the fact that environmental quality will suffer to provide greater prosperity for their communities. China is a classic example today of a nation that has been sacrificing the environment for economic growth to address its social needs for food, education, housing, and jobs. It is only now beginning to appreciate – and address – the negative environmental impacts of that strategy.

The challenge for LAWA will be to drive innovations that will help achieve a sustainable balance among economic, environmental, and social priorities. In future years, LAWA may increasingly choose to use its economic gains to invest in new technologies that will improve the environment or mitigate adverse environmental conditions. It may leverage Cap & Trade opportunities and escalate its efforts to reduce its carbon footprint through intensified resource conservation, increased use of electric vehicles, or further utility plant improvements.

Embracing a CSR approach can change the options considered and decisions made in future years at LAWA. Los Angeles is not only a local economy, but also a key player in the global economy. LAX's economic engine affects Southern California, and to a lesser extent the nation and the world. Similarly, LAWA's environmental policies also affect air quality, water quality and supply, noise levels, and land use – critical factors in the quality of life for Angelenos, our nation, and the world.



KH's proposed CSR strategic priorities for LAWA are displayed graphically. KH has drafted potential goals and performance measurements for each of these CSR priorities in Chapter II.2.

PROPOSED ACTION STEPS

1. LAWA executives should develop a CSR program with stated values, initiatives, and goals.
   1.1. Note: KH has proposed goals for economic, environmental, community, and governmental aspects for a CSR program at LAWA in the subsequent recommendations in this chapter.
2. LAWA executives should educate LAWA employees so that they:
   2.1. Understand the CSR values and initiatives
   2.2. Learn how CSR affects decision-making and operations

2.3. Celebrate efforts that support CSR objectives

3. LAWA should implement, monitor, and refine over time KH's BSC prototypes for CSR in Chapter II.2.

Economic & Fiscal Impact

LAWA has a major role in the region's economy. LAX serves the five-county Southern California region, and is a major aviation port of entry to the United States. LAWA promotes trade and tourism, creates jobs, provides opportunities for businesses, and contributes to the tax base. LAWA creates, attracts, and supports economic activity throughout Southern California.

To date, the three airports contribute:

- $92.7 million annually in Possessory & Secured Property Taxes and sales taxes from retail, food, and beverages sold (another $33.4 million in sales taxes goes to the State of California)
- $876,000 in Parking Occupancy Tax (POT) generated by LAWA-operated facilities
- $1.2 billion in procurement activities to the regional economy
- $153.1 million in LAWA payroll
- At least $1.2 billion in wages of the 39,381 badged employees and workers at LAWA (direct employment)
- 360,000 direct and indirect jobs in Southern California, of which 294,000 jobs are in Los Angeles County

LAWA is an important economic engine, contributing at least $2.6 billion to the regional economy and 360,000 jobs in Los Angeles County.

Tax Revenue

Table I.3a displays the Possessory & Secured Property assessments performed at LAX and VNY by the Los Angeles County Office of the Assessor. These assessments translate into $88.5 million per year in Possessory & Secured Property Taxes.

Table I.3a: Annual Tax Revenue Generated by Possessory & Secured Property at LAX and VNY[21]

Los Angeles County Office of the Assessor's Assessments	Tax Revenue
$ Possessory Interest Tax Revenue LAX	$57,370,978
$ Secured Property Tax Revenue LAX	$13,708,686
$ Possessory Interest Tax Revenue VNY	$16,941,663
$ Secured Property Tax Revenue VNY	$518,067
Totals	**$88,539,394**

21 Special data report prepared by the County of Los Angeles, Office of the Assessor, for purposes of KH's analysis for this IEA Survey, October 2015.

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Concession revenues total $1.5 billion and have increased by 5.5% between FY 2013-2014 and FY 2014-2015, as summarized in Table I.3b. LAWA's food, beverage, and retail revenue generates $37.5 million in sales tax, of which $4.16 million is for local use.

Table I.3b: Concession Revenues that Generate Sales Taxes

Concession Revenue Sources	FY 2012-2013	FY 2013-2014	FY 2014-2015	% Change from Prior Year	Total Sales Taxes (9%)[22]	LA Share of Sales Taxes (1%)
Food & Beverage	$204,713,565	$234,639,213	$262,834,301	12.0%	$23,655,087	$2,628,343
Retail	$102,700,022	$135,730,250	$153,561,722	13.1%	$13,820,555	$1,535,617
Totals	**$307,413,587**	**$370,369,463**	**$416,396,023**		**$37,475,642**	**$4,163,960**

Economic Impact

Economic impact can be measured by a number of factors. For this analysis, the KH team focused on household income (as measured by earnings at LAWA) and goods and services purchased from LAWA. To do this analysis, the KH team worked with data provided by LAWA and generated a series of Geographic Information System (GIS) maps to analyze LAWA payroll by residential location, badged LAWA workers by residential location, and LAWA's expenditures for goods and services by payee address.

LAWA PAYROLL (BLUE MAPS)

The **blue map** displays W-2 employees working for LAWA, by zip code, in Los Angeles County; it does not include all people who work at the airports. LAWA's total payroll is $153.1 million. LAWA employees generate financial benefits primarily to the communities surrounding LAX, VNY to the north, and ONT and to the east. Table I.3c displays the 10 leading cities for payroll from LAWA, by place of residence. The City of Los Angeles has the highest concentration with $45.6 million, representing 30% of the total LAWA payroll.

Table I.3c: Top 10 Cities for LAWA Payroll in Los Angeles County

City	LAWA Payroll	Percent of Total
Los Angeles	$45,563,334	30%
Inglewood	$7,863,889	5%
Long Beach	$6,574,992	4%
Torrance	$5,309,395	3%
Hawthorne	$4,609,825	3%
Carson	$3,998,677	3%
Downey	$2,879,185	2%

22 Source: State of California, Broad of Equalization.

Note: Sales tax distribution for Los Angeles County is: 6.25% for the State of California for its General Fund; Local Public Safety Fund to support local criminal justice activities (1993); Education Protection Account to support school districts, county offices of education, charter schools, and community college districts; Local Revenue Fund to support local health and social services programs (1991 Realignment); and Local Revenue Fund (2011); 1.00% for the City of Los Angeles (or LA County) operations; and 1.75% for local MTA special Assessments, including 0.25% for county transportation.

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City	LAWA Payroll	Percent of Total
Redondo Beach	$2,798,412	2%
Rancho Cucamonga	$2,699,875	2%
Fontana	$2,670,865	2%
Total LAWA Payroll	**$153.1 million**	

Almost all significantly populated geographic areas in the region benefit to some extent from residents employed at LAWA's airports.

LAWA BADGED WORKERS AND EMPLOYEES (ORANGE MAPS)

The KH team analyzed the residential location of the 39,381 badged individuals, who work at LAWA facilities. The data include full-time and part-time workers and employees of airport tenants and vendors, as well as LAWA itself. The **orange map** shows where these individuals live within Los Angeles County, by zip code.

Because KH did not have salary information for these workers, KH developed a conservative estimate of what the earnings might be. According to the U. S. Bureau of Labor Statistics, workers in the Los Angeles-Long Beach-Glendale Metropolitan Division had an average (mean) hourly wage of $25.48 in May 2014.[23] Using this mean, KH assumed 1,200 hours per worker per year, reflecting a full-time and part-time split. This calculation equated into $30,576 for an annual salary (without benefits) per worker. Therefore, the estimated earnings of badged employees (excluding LAWA staff members) were likely to have exceeded $1.2 billion annually.

LAWA EXPENDITURES FOR GOODS AND SERVICES (PURPLE MAPS)

LAWA cut checks for $1.9 billion for goods and services during a 12-month period (2014-2015). In the case of capital construction, only payments made to prime contractors are shown. The **purple map** displays these payments made to entities in Los Angeles County.

Of the $1.9 billion that LAWA spends on goods and services, 49.3% of it stays in Los Angeles County, most of which is spent in the City of Los Angeles – $831.4 million. Overall, 76.8% (or $1.5 billion) remains in California and most of the balance is spent with U. S. firms and companies. Table I.3d summarizes how these Accounts Payable expenditures break down, by geographic locality.

23 Source: "Occupational Employment and Wages in Los Angeles-Long Beach-Glendale," U.S. Department of Labor, Bureau of Labor Statistics, Western Information Office, May 2014 http://www.bls.gov/regions/west/news-release/occupationalemploymentandwages_losangeles.htm

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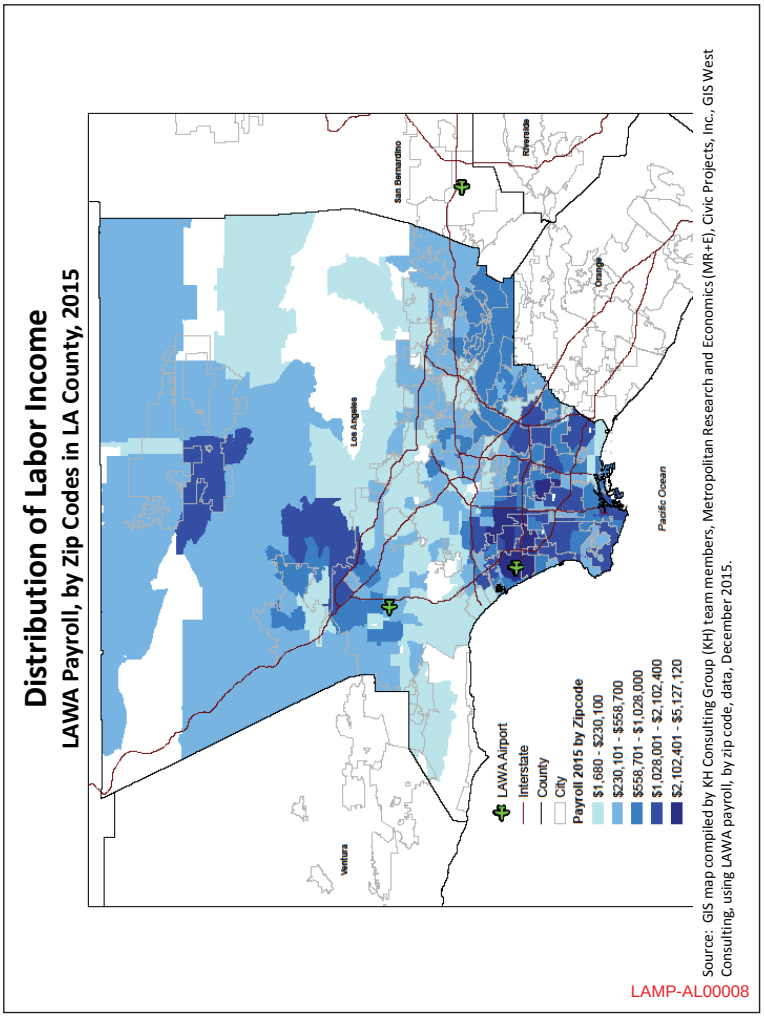

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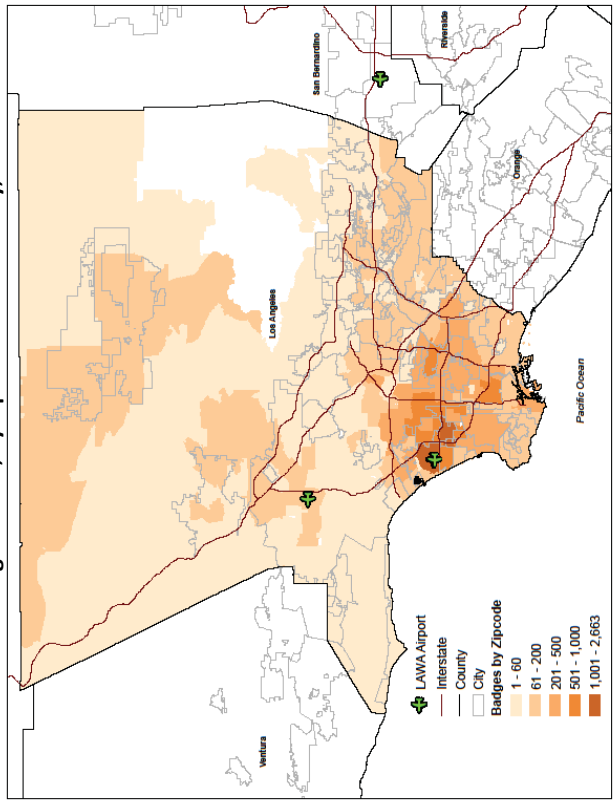
Distribution of Airport Workers

LAWA Badges Issued, by Zip Codes in LA County, 2015



Source: GIS map compiled by KH Consulting Group (KH) team members, Metropolitan Research and Economics (MR+E), Civic Projects, Inc., GIS West Consulting, using LAWA payroll, by zip code, data, December 2015.

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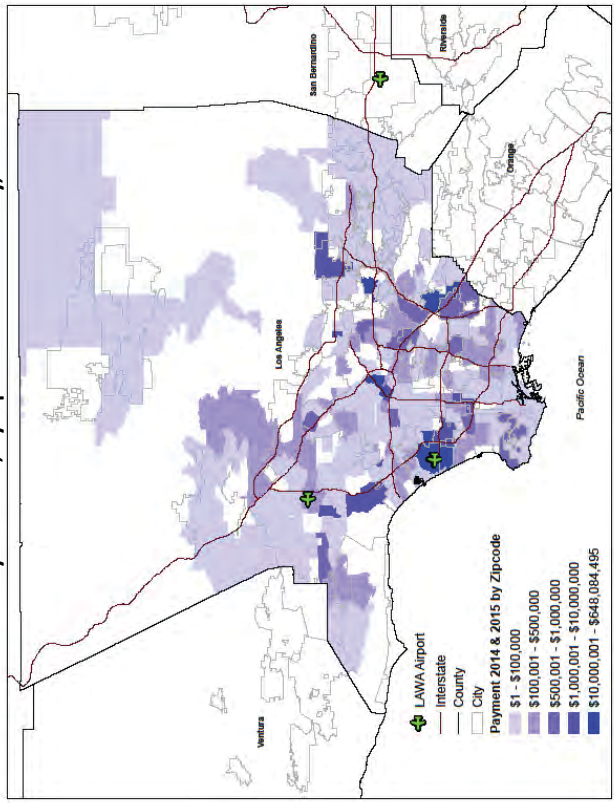
LAWA Purchases

LAWA Accounts Payable Paid, by Zip Codes in LA County, 2014 & 2015



Source: GIS map compiled by KH Consulting Group (KH) team members, Metropolitan Research and Economics (MR+E), Civic Projects, Inc., GIS West Consulting, using LAWA payroll, by zip code, data.

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Table I.3d: LAWA Goods & Services Purchased, by Geographic Area

Locality of Goods and Services Purchased	$ Goods and Services Purchased	% of Total Goods & Services Purchased	Accumulative %
City of Los Angeles	$831,366,327	42.5%	42.5%
Rest of LA County	$132,158,465	6.8%	49.3%
Rest of SCAG Region	$283,833,494	14.5%	63.8%
Rest of California	$255,313,114	13.0%	76.8%
Rest of U. S.	$454,622,892	23.2%	>99%
Rest of World	$164,267	<0.01%	100%
Totals	**$1,957,458,560**	**100.0%**	

RECOMMENDATION I.3.2: LAWA CAN MONITOR AND PLAN TO INCREASE ITS CONTRIBUTIONS TO THE LOS ANGELES ECONOMY.

Finding. LAWA is a major economic engine in the region, but lacks comprehensive economic development policies or plans.

Economic development is seen as a consequence or secondary effect of airport activities, and not as a central part of LAWA's mission. As a result, LAWA has neither developed a strategic approach to maximize its economic impact and benefits, nor compiled and monitored data on its economic impact.

LAWA's economic development resources are deployed to address land use entitlements, compile environmental documents, and support capital projects at the airports. The economic impact data presented to the public is largely dated and piecemeal:

- The LAX Capital Improvement Program (CIP) has a home page – www.LAXisHappening. com – that provides links that outline the economic benefits and contributions of their construction projects: a $4.1 billion project has created "*40,000 good-paying local jobs and pumps $6.89 billion into the local economy.*"
- During the past four years, LAWA's media and public relations reports consistently re-cap highlights of LAX's economic contributions at news conferences and in news releases from the 2011 Los Angeles Economic Development Corporation (LAEDC) report. A 2015 report is being finalized and will provide updated economic contribution information.

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- LAWA also produces the "LAX Airfield and Construction Projects – Economic Analysis" and "The Economic Activity Dependent on Overseas Flights at LAX."
- LAWA currently assesses the short-term economic benefits related to its new or renovated facility projects by citing the number of new jobs generated during construction.

While it is appropriate to measure the impact of those temporary jobs, LAWA does not currently measure the long-term term economic impacts of these projects, such as new permanent, full-time jobs and businesses supported by a completed new facility. Such long-term term measurements are considered to be better lasting outcomes and are referred to as Genuine Progress Indicators (GPI).

Proposed Actions. LAWA should adopt economic development strategies and report its economic impact, resulting from those strategies.

In establishing goals, LAWA must abide by the FAA's rules pertaining to Federal revenue diversion. LAWA may not have a stated goal of increasing its contribution to the Los Angeles economy, but it can have goals of increasing passenger and commercial activity that, in turn, results in increased contributions to the region's economy. To measure and evaluate the impact of LAWA as an economic engine to the Los Angeles region, KH developed a series of proposed goals, combined with possible ways to measure progress or outcomes, as a starting point.

The FAA requires LAWA to spend all airport-generated revenues for aviation-related purposes.

KH's Proposed Goals for LAWA: Economic & Fiscal Impact

Overall Economic Impact – Facilities operated by LAWA support the economic health of the region, as well as surrounding communities.

Trade: Passengers and Cargo – LAWA's airports are a trade gateway between the LA region and the world.

Jobs: Employment and Payroll – LAWA facilities are an important source of jobs to the residents of Los Angeles County and the Southern California Association of Governments (SCAG) region.

Businesses – LAWA facilities are an important source of opportunity for businesses in Los Angeles County and the SCAG region.

Taxes – LAWA is an important source of tax revenue to the City of Los Angeles, Los Angeles County, and the rest of the State.

Tourism – LAWA airports are key partners and stakeholders in the Los Angeles regional tourism industry.

Land Use – LAWA plans prudently and seeks to use the land it needs in ways that improve the environment and aesthetics of airport properties.

Fiscal Viability – LAWA operates facilities in a fiscally responsible manner, ensuring the long-term sustainability of its assets.

Environmental Fines/Cap & Trade – LAWA's consistently reduces its carbon-emission fines. In the long term, LAWA envisions the Carbon Cap-and-Trade system as a possible potential revenue opportunity.

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Chapter II.2 presents sample measurements for these economic impact goals; Chapter II.4 describes relevant measurements for fiscal viability.

PROPOSED ACTION STEPS

1. LAWA should establish an ongoing system to:
   - 1.1. Discuss KH's proposed Economic & Fiscal Impact goals, refine them as necessary, and develop a set of goals that LAWA embraces, communicates, and includes in its capital and operational planning
   - 1.2. Prepare a comprehensive economic development strategy with measurable objectives that can guide policy and investments by LAWA
   - 1.3. Communicate the economic development strategies for the City of Los Angeles and the regional economy to decision-makers and the general public
2. LAWA should monitor and report on the results of the strategies, including:
   - 2.1. The amount of direct employment at LAWA facilities by the residential location of employees
   - 2.2. The locations and industrial sectors of direct expenditures for goods and services by LAWA
   - 2.3. Direct payroll to households as a result of LAWA activities
   - 2.4. Taxes, including Possessory & Secured Property Taxes, sales tax, Transient Occupancy Tax (TOT), Parking Occupancy Tax (POT), utility user taxes, business license taxes, etc.
   - 2.5. Payments for environmental fines, mitigations, and community benefit agreements
   - 2.6. Genuine Progress Indicators (GPI)
3. LAWA should aggregate the data at meaningful levels of geography, such as Council Districts, LA City, or the region as a whole.
4. LAWA should enhance the economic metric forecasts and modeling to produce more robust metrics of economic and fiscal impact in going forward.

Regarding the last action step, there are many analytics that will be useful for LAWA to know as it moves forward. For example, LAWA could analyze the sectors and activities that take place in the community that are part of the economic export base of the airport, using Location Quotients (LQ) for concentration of employment and output for the community, based on North American Industry Classification System (NAICS) codes.[24]

$$LQ = \frac{\left(\frac{\text{Region's Industry Employment}}{\text{Region's Total Employment}}\right)}{\left(\frac{\text{U.S. Industry Employment}}{\text{U.S. Total Employment}}\right)}$$

24 LQ metrics are used in economic geography and is a mathematical means for calculating the concentration ratio of employment.

RECOMMENDATION I.3.3: LAWA SHOULD CONTINUE TO LEVERAGE LAND USE PLANNING AND INVESTMENTS TO MAXIMIZE ECONOMIC DEVELOPMENT AROUND LAX.

Finding. The new LA Metro Crenshaw/LAX Line will stimulate further economic development in the vicinity of LAX.

The FAA requires LAWA to spend all airport-generated revenues for aviation-related purposes. Hence, current land acquisition projects must directly benefit the airport and passengers. Following these guidelines, LAWA has begun to invest successfully in real estate surrounding LAX. The LAX Northside Plan Update was well regarded by both the community and LAWA. LAWA has undertaken land use plans as part of the Airport Transit Connector (ATC) process. Today, LAWA is a significant property owner and tenant along Century Boulevard and within the Westchester Playa del Rey Community Plan Area.

LA Metro is building an 8.5-mile, $2-billion light rail project that will connect the Expo and Green lines near LAX. The new line is projected to open in 2019. The arrival of this LA Metro Crenshaw/LAX Line will allow LAX guests to connect to the regional transit network in new and potentially powerful ways.

Simultaneously, LAWA plans on constructing the ATC station, a Consolidated Rent-A-Car Center (CONRAC), and an Automated People Mover (APM) to move guests from the LA Metro Crenshaw/LAX station into LAX.

LAWA is currently working with the Los Angeles Department of City Planning (LADCP), LA Metro, and other agencies regarding the community and land use plans for the surrounding areas. LAWA and LA Metro's projects have the potential for joint development opportunities that will serve as catalysts for new private investment along Century Boulevard, around Manchester Square, and in adjacent areas.

This capital improvement Modernization Project is discussed further in Chapter I.4, regarding "Guest Experience" and access to LAX, and Chapter I.5, regarding capital program planning, readiness, and project management.

Proposed Actions. LAWA should encourage and participate in land use plans for areas impacted by its proposed off-site capital investments to increase economic benefits.

Economic benefits to the community surrounding LAX and City of Los Angeles as a whole can be maximized through a comprehensive land use plan that integrates transportation imperatives with community economic development goals. Therefore, when looking at land use surrounding the airports, the City of Los Angles and its Planning Department should coordinate land use planning and investments in a manner that maximizes economic development within the Community Plans, particularly for the proposed new off-site capital investments.

PROPOSED ACTION STEPS

1. LAWA should formally assign economic impact analysis responsibility to an organizational unit.
   - 1.1. This organization should monitor the economic impact goals.
2. The land use plan can be part of LAWA's economic development strategy that focuses on the opportunities outside the boundaries of LAX and the Central Terminal Area (CTA), including opportunities to support economic development along Century Boulevard and within the Westchester and Playa Del Rey Community Plan areas.
   - 2.1. LAWA's participation must include a healthy respect for FAA revenue diversion restrictions.
3. The goals for an economic development strategy should include efforts to:
   - 3.1. Monitor contributions to tax revenues for Los Angeles City and other jurisdictions
   - 3.2. Continue collaborating with LADCP, LA County, and neighboring communities to foster the highest and best use of the commercial real estate surrounding LAX, particularly while balancing adjacent communities' needs
   - 3.3. Continue working with LA Metro and LADCP to support development of a Transit Oriented District (TOD) around the Crenshaw/LAX Metro station
   - 3.4. Monitor employment wages that are the result of the airport and optimally the creation of jobs in the surrounding areas

Environmental Responsibility

Environmental responsibility encompasses several topics: air quality (e. g., Greenhouse Gas (GHG) emissions affected by aircraft, Vehicular Miles Traveled (VMT), etc.); green buying; water conservation; noise pollution; energy sourcing and use; materials and resources; green construction; and natural resource preservation.

Many people and entities hold LAWA accountable for its environmental sustainability. The public expects LAWA to be a responsible consumer of resources, including fuel and energy conservation programs. The City of Los Angeles monitors LAWA's water usage and other environmental impacts. In addition, the State of California is a key regulator of LAWA's resource consumption and pollution, such as reducing hazardous waste in compliance with the State's SB14 rules covering the proper disposal of E-waste.

RECOMMENDATION I.3.4: LAWA SHOULD PRESENT THE "BIG PICTURE" OF ITS ENVIRONMENTAL IMPACT, WHILE COMMUNICATING ITS SUSTAINABILITY EFFORTS.

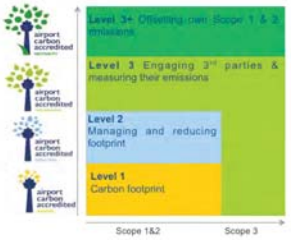
Finding. LAWA has prepared Environmental Sustainability Reports since 2008 as part of its public accountability.

As discussed in Chapter I.1 under "Strengths and Accomplishments," LAWA has prepared Environmental Sustainability Reports since 2008 as part of its public accountability. The 2008 Los Angeles World Airports Sustainability Plan remains the most recent policy document guiding LAWA's sustainability efforts, however.

During the past six months, LAWA's environmental staff members have made progress in achieving a more cohesive perspective on environmental sustainability and the environmental reality of LAWA's facilities. It expands the original focus on compliance with regulations and the production of required Environmental Impact Reports (EIRs) to a broader facility-wide and LAWA-wide view of the issues.

LAWA is seeking Level 3 accreditation through the Airport Council International—North America (ACI-NA) Airport Carbon Accreditation program[25] for achieving carbon reduction. LAWA has set target reductions in GHG emissions of:

- 45% by 2025 from 1990 levels
- 60% by 2035 from 1990 levels
- 80% by 2050 from 1990 levels



LAWA's most recent GHG inventory was done in 2009. LAWA works to minimize GHG emissions and negative impacts to air quality from emissions. As an indication of LAWA's new emphasis on sustainability, LAX is embarking on an effort to calculate GHG on an ongoing basis according to international best practices for airports. The landside access facilities are being designed to reduce single vehicle trips and Vehicle Miles Travelled (VMT) in and out of LAX by 2024. Although the primary mode of transport to and from LAX is likely to remain passenger vehicles for the foreseeable future, the Landside Access Modernization Program (LAMP) promises environmental benefits by reducing the number of shuttles circulating in the CTA, as well as improvements in the guest experience.

LAWA spends money on exceeded carbon credits from LAX's new power plant in accordance with AB 32 – California's Cap and Trade legislation. LAWA violated a narrow part of the Title V permit for air emissions based on fuel throughput at some of its LAX terminals last year. It negotiated with the South

25 Airport Council International (ACI), Airport Carbon Accreditation, Issue 5.3, January 2015. www.airportcarbonaccredited.org

Coast Air Quality Management District (AQMD) to pay a fine of $75,000 in cash and $99,000 for a separate environmental project for electric passenger vehicles. Today 59% of LAWA's fleet uses alternative fuel, as shown in Table I.3e:

Table I.3e: LAWA's Alternative Fuel Fleet

Type of Unit	Total in Fleet	Number Using Alternative Fuel	% of Fleet
Vehicles	555	273	49%
Pick-ups	227	155	68%
Light trucks (up to 8 tons)	25	6	24%
Heavy trucks	56	32	57%
Buses	81	67	83%
Equipment (not counting generators)	69	66	96%
Overall	**1,013**	**599**	**59%**

Noise is a function of aircraft, traffic, and FAA flight path routing – and a major concern of communities adjacent to the airports. Although LAWA does not have any direct control over jet or helicopter noise, it has worked with the airlines and the FAA to institute voluntary measures that result in noise reduction. For example, at VNY, LAWA has been working with the FAA, helicopter operators, and community groups about helicopter noise levels and compliance with Federal legislation for voluntary reductions; not all of the targets set for December 2014 have been reached, and efforts continue.

Proposed Actions. LAWA should continuously work toward moderating its environmental impact and informing the public about both its environmental impact and mitigation efforts.

As LAWA strives to make its airports world-class, what "world-class environmental sustainability" looks like for an airport remains an open question. All airports are sources of pollution, consuming natural resources, producing pollutants, and contributing to climate change. Any assessment of environmental sustainability at an airport inevitably occurs in the context of an unspoken, but widespread belief, on the part of the public and stakeholders that the economic and social benefits that air travel provides outweigh the environmental impacts. The trade-offs between social benefits, economics, and environment impacts are difficult to quantify. There is no equation that meaningfully weighs the pros and cons.

Transparency is the best way to ensure that environmental costs and economic benefits are both considered. The public needs to be aware – in a clear, objective, and timely way – of the environmental impact of LAWA facilities. Such an approach supplements and builds on the reports on LAWA's programs and activities to mitigate environmental impacts. LAWA needs to explain its successes and commitment to sustainability, while succinctly presenting the "Big Picture" of resource consumption, GHG, and pollution at its facilities, and their actual or potential effects.

In addition, LAWA must work toward minimizing its environmental impacts. A patchwork of regulations, either governing LAWA directly or governing activities of its commercial partners, provides a poor framework for sustainability

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To measure and evaluate LAWA's environmental responsibility, KH developed a series of goals for LAWA's consideration and ideally adoption:

KH's Proposed Goals for LAWA: Environmental Responsibility

Green Buying – Sustainability is a priority in purchasing decisions regarding sources and materials purchased.

Water Conservation – Water is conserved to the greatest extent feasible.

Noise – LAWA encourages and promotes aircraft operations that minimize community noise impact. LAWA takes steps to mitigate traffic and aircraft noise impact on surrounding communities.

Energy Stewardship – LAWA takes consistent steps to use its energy resources more efficiently.

Greenhouse House Gas/Vehicular Miles Traveled (GHG/VMT) – LAWA takes steps to reduce GHG and VMT where feasible.

Air Quality – LAWA takes steps to minimize and diminish negative impacts on air quality.

Materials and Resources – LAWA conserves materials and natural resources and uses renewable materials whenever possible.

Green Construction – LAWA uses best practices of green construction.

Natural Resources – LAWA conserves natural resources where feasible.

Chapter II.2 displays these economic impact goals with sample measurements for each of them.

PROPOSED ACTION STEPS

1. LAWA should discuss KH's proposed goals, refine them as necessary, and develop a set of goals on environmental responsibility, which LAWA embraces, communicates, and applies to all of its efforts.
2. LAWA should use these policy goals to guide an ongoing system of reporting on the status of the environmental impact (good and bad news), including progress, or lack thereof, toward sustainability goals.
   - 2.1. The policy-setting process should capture substantive input of LAWA's environmental staff members.
   - 2.2. The goals should be based on industry standards (e. g., BTU per square foot for energy stewardship).
   - 2.3. LAWA executives should include these goals as part LAWA priorities.
   - 2.4. LAWA should use best practices when communicating the environmental impact with the public and stakeholders.
3. To inform the broader (and less detailed) LAWA-wide policy document, just described, LAWA should revise the 2008 Los Angeles World Airports Sustainability Plan with a commitment to:
   - 3.1. Regular updates
   - 3.2. Presentation of the information in a more dynamic digital medium and accessible format
   - 3.3. Linkages to environmental impact performance metrics

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4. LAWA should continue and expand its environmental initiatives, such as:
   - 4.1. Analysis of the environmental and community impacts of new initiatives, in addition to their economic benefits
   - 4.2. Working with the FAA and community groups regarding environmental issues
   - 4.3. Investing in new technologies that will improve the environment or mitigate adverse environmental conditions
   - 4.4. Increasing the portion of airport structures that meet LEED standards
5. LAWA should leverage Cap & Trade opportunities and continue to reduce LAWA's carbon footprint by:
   - 5.1. Increasing resource conservation
   - 5.2. Reducing Vehicle Miles Traveled (VMT)
   - 5.3. Continuing to pursue additional energy efficiency and conservation in the new Central Utility Plant (CUP)[26]
   - 5.4. Increasing the proportion of alternate fuel vehicles in its fleet
   - 5.5. Increasing the proportion of electric and alternate fuel ground handling equipment at the airports
6. LAWA should actively pursue alternative energy sources, such as expanded use of solar panels wherever opportunities can be seized or innovated (e. g., over parking lots, on top of terminals, and elsewhere).
7. LAWA should continue to monitor and report noise levels.
   - 7.1. LAWA should continue to identify air carriers and flight numbers for any aircraft operation that results in 2 or more complaints.
   - 7.2. LAWA should continue to work with the FAA, helicopter operators, and community groups to address helicopter noise levels at VNY and might consider such options as:
     - 7.2.1.Restricting low-altitude helicopter flying
     - 7.2.2.Restricting the number and length of time helicopters may hover in one place
     - 7.2.3.Working with media companies to pool their helicopter coverage
     - 7.2.4.Rerouting helicopters along less populated routes, such as the coastline

26 The CUP is already awarded LEED Gold status, as discussed in Chapter I.1 on "Strengths and Accomplishments."

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External Stakeholders and Community Impact

Community impact can be measured from several perspectives:

- Socio-economic and demographic trends at an airport and its surrounding markets, such as population, households, age distribution, income distribution, and educational attainment
- Economic impact in support of jobs and businesses (discussed earlier)
- Environmental impact (noise, air, water, and traffic) (discussed earlier)

Residents neighboring LAX complain primarily of noise and traffic. As already indicated, noise is a function of the airlines, their aircraft, FAA routing decisions, and the traffic volume. The **red map** displays "Traveler Trips in One Direction to LAX for the Peak Day of the Average Month (PDAM)" for Los Angeles County. The map displays the number of one-way trips by travelers using LAX, and does not include workers or employees at LAX. There are likely equal numbers of trips from LAX back to the travelers' place of origin if residing in the Los Angeles area. Place of origin is based on Transportation Analysis Zones (TAZ), which are units of measure that transportation planners use.[27]

The new LA Metro Crenshaw/LAX Station may help to mitigate some of the travel density, but LAX clearly serves a wide geographic area of Southern California. Greenhouse House Gas/Vehicular Miles Traveled (GHG/VMT) contribute to such environmental factors as air, water, noise, and traffic congestion.

RECOMMENDATION I.3.5: LAWA MUST ALWAYS STRIVE TO MAINTAIN GOOD EXTERNAL STAKEHOLDER RELATIONSHIPS.

Finding. LAWA has a complex network of external stakeholders, including its neighboring communities, Los Angeles, and the region.

LAWA is a regional asset. LAWA's "community stakeholders" are diverse and sometimes have conflicting priorities and needs. The stakeholders can be segmented into three groups, as shown in Table I.3f:

Table I.3f: Stakeholder Segments and Perspectives

Stakeholder Segmentation	Stakeholders' Priorities	Stakeholders (Illustrative)
Local communities and neighbors	These stakeholders are primarily concerned about adverse environmental impacts – primarily traffic and noise. Many also benefit from airport-related businesses and employment opportunities. LAWA has had good success in working with the community regarding the LAX Northside Plan Update adjacent to LAX. This positive experience should form the foundation for future community engagement activities.	▪ Los Angeles City Neighborhood Councils ▪ Homeowners' associations ▪ Local community groups ▪ Local business associations ▪ Neighboring city councils

27 Based on survey data, PDAM is 0.3% of annual trips.

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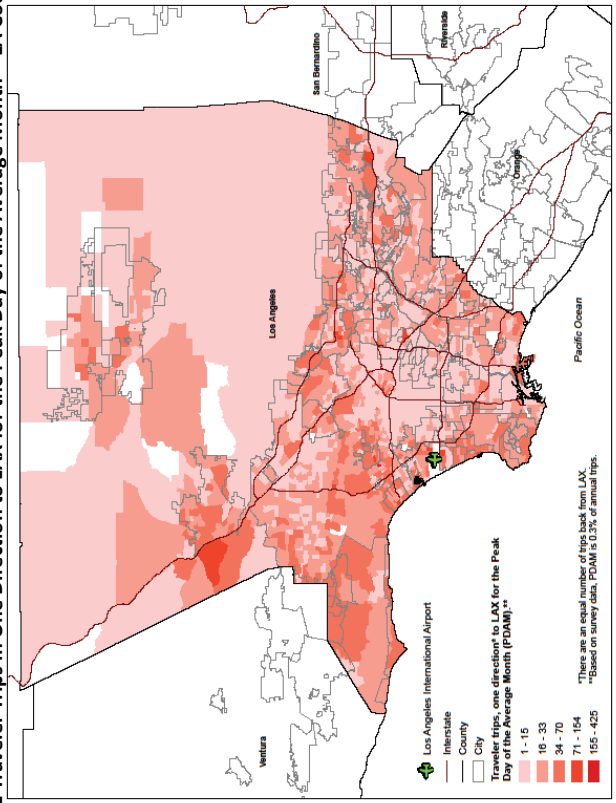
Land Use – One-Way Trips to LAX

2012 Traveler Trips in One Direction to LAX for the Peak Day of the Average Month – LA County



Source: Southern California Association of Governments (SCAG) data, 2012. GIS map compiled by KH Consulting Group (KH) team members, Metropolitan Research and Economics (MR+E), Civic Projects, Inc., GIS West Consulting, January 2015.

Stakeholder Segmentation	Stakeholders' Priorities	Stakeholders (Illustrative)
City of Los Angeles's image	Although LAX is an asset to the City of Los Angeles, City officials have become concerned that it is not world class and competitive with other international airports in the United States and overseas. They believe that arriving passengers' first impression of Los Angeles is based on what they experience at LAX. A bland corridor or terminal does not evoke the desired spirit of Los Angeles. New local concessions and art exhibits are significant improvements, but LAWA can do more. LA's image is further discussed in Chapter I.4 on "LAX Guest Experience."	▪ Los Angeles City Mayor, Council members, City Controller, and other officials ▪ Los Angeles City departments
Southern California region	As a major international airport, LAWA is a significant regional asset and its collaboration with LA Metro, County of Los Angeles, and other public agencies are important.	▪ Los Angeles County government ▪ Other cities in LA County ▪ Unincorporated areas in LA County ▪ SCAG ▪ Other community groups, homeowners' associations, etc. ▪ Other business associations

Proposed Actions. LAWA's plans should balance the needs of the local communities with those of the City of Los Angeles and the region.

To measure and evaluate the impact of LAWA's role in the community, KH developed a series of goals. The goals cluster into the following relationships:

KH's Proposed Goals for LAWA: Community Impact

Local communities and neighbors – LAWA maintains good relationships with its local neighbors by mitigating and minimizing the environmental impacts (noise, air quality, and traffic). Simultaneously, it contributes to the economy of its neighbors. LAWA plans inclusively with its local neighbors.

City of Los Angeles's image – LAWA is an asset to the City of Los Angeles by welcoming visitors from the U. S. and around the world to a modern, efficiently-run airport.

Southern California region (County of Los Angeles, public agencies) – LAWA cooperates with County of Los Angeles departments and other agencies, such as LA Metro, to improve the value of the airports as Southern California assets.

Chapter II.2 on CSR displays sample ways that these goals can be measured.

PROPOSED ACTION STEPS

1. As part of transparency, LAWA should post this IEA Survey Report on the LAWA website and make it available for the public to read; LAWA should also:
   - 1.1. Detail the economic benefits of LAWA to local officials and the public (discussed in Recommendations 1.3.2 and 1.3.3)
   - 1.2. Acknowledge the environmental impacts LAWA creates, and the steps it is taking to mitigate them (discussed in Recommendation 1.3.4)
2. LAWA executives should discuss KH's proposed goals, refine them as necessary, and develop a set of goals on community impact, which LAWA embraces, communicates, and reflects in all of its efforts.
   - 2.1. Before finalizing the goals, LAWA should share and discuss the IEA Survey recommendations and these goals with community groups, including Neighborhood Councils, homeowners' associations, business associations, etc.
   - 2.2. LAWA should integrate the community's feedback into the draft goals as appropriate.
   - 2.3. On an ongoing basis, LAWA should provide feedback on issues the community raises, report on progress LAWA has made vis-à-vis the goals, and outline actions LAWA plans to take to address areas that still lag.
3. LAWA should develop a coordinated effort for working with the local community and in sharing environmental impact information and mitigation initiatives with them (discussed in Recommendation I.3.4).
4. LAWA should continue its efforts to:
   - 4.1. Attract businesses at LAX that reflect the Los Angeles spirit, as discussed further in Chapter I.4 on "LAX Guest Experience"
   - 4.2. Do business with Local Small Business Enterprises (LSBEs), discussed further in Chapter II.5, as a means of helping local businesses and retaining revenue within the region
5. LAWA should move head on its Second Modernization Program that involves the construction of the APM that will link LAX and the new LA Metro Crenshaw/LAX station.
6. LAWA should continue and expand the efforts to improve the ambiance of the terminals to match the spirit of Los Angeles (discussed further in Chapter I.4 on "Guest Experience").

7. LAWA should complete its redesign of its website, ensuring it is up-to-date, presents a unified image, and provides user-friendly navigation so that public communication and messaging is branded in a more coherent way.
8. LAWA should increase its efforts to make real-time information regarding roadway congestion, parking, and delays available to guests as they approach the airport to minimize impact on the surrounding communities (also discussed in Chapter I.4 on "Guest Experience").

Governmental Relations

RECOMMENDATION I.3.6: LAWA SHOULD ESTABLISH GOALS AND MEASUREMENTS FOR EVALUATING THE EFFECTIVENESS OF GOVERNMENT AFFAIRS' ACTIVITIES.

To operate airports requires a close working relationship with other governmental agencies, including the FAA, TSA, LA Metro, and other Los Angeles City departments and elected officials.

Finding. LAWA lacks a strategic approach with goals and means for evaluating success or progress for governmental affairs activities.

LAWA prides itself in its working relationship with other governmental entities at the airports – FAA, TSA, Los Angeles Police Department (LAPD), Immigration & Customs Enforcement, and Customs & Border Patrol (CBP). LAWA also has close relationships with a variety of Federal law enforcement and intelligence agencies.

- **LAWA lacks a governmental affairs strategy with goals for measuring success or progress.** LAWA's current approach is reactive versus inclusive in the formative stages. There are no formal goals or measurements.
- **LAWA has had uneven working relationships with City Hall.** As a proprietary department, LAWA generates its own revenues and, thus, has greater autonomy in program development and spending than Mayoral departments. Because of this comparative autonomy, LAWA executives should be particularly aware of the need to share plans or ideas in their formative stages with elected officials. Confirmation by the City Council is required for major contracts, and the Mayor can exert control by the appointment or dismissal of BOAC members. Therefore, it is essential for LAWA to maintain strong relationships with the Mayor and City Council.
- **LAWA should continue to maintain its working relationships with other City departments.** LAWA has established working relationships with various City departments, including:
  - Los Angeles Police Department (LAPD) to supplement Law Enforcement & Homeland Security Division operations
  - Los Angeles Fire Department (LAFD) to provide emergency medical and fire services
  - Los Angeles Department of Cultural Affairs to display art exhibits at LAX
  - Los Angeles Department of Transportation (LADOT) for support with traffic control of local street approaches

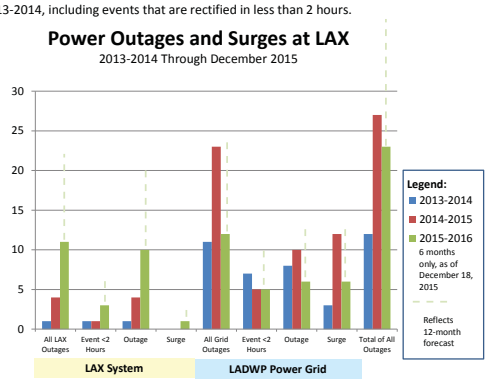
- Los Angeles Department of City Planning (LADCP) to support the Transit-Oriented District (TOD) efforts around the new LA Metro Crenshaw/LAX station and various land use entitlements required for day-to-day operations and modernization
- Los Angeles Department of Building & Safety (LADBS) to provide staff onsite for LAWA's major construction projects at LAX
- Los Angeles Department of Water & Power (LADWP) through monthly meetings with senior power and water people

Given the complexities of LAWA, it must continually develop working relationships with other City departments to tackle such complex issues as:

- Expediting human resources (HR) processes by working in collaboration with the City's Personnel Department
- Launching additional conservation efforts with LADWP
- Reducing power outages and surges[28] at LAX by working with LADWP, discussed next

Finding. LAWA faces challenges in dealing with power outage and surge issues at LAX.

LAWA has been working with LADWP to mitigate outages and surges. LAWA's trend lines indicate an escalation in power problems over the past few years with the number of outages increasing steadily since 2013-2014, including events that are rectified in less than 2 hours.



28 The issue of frequent power outages was raised by the Guest Experience working group, as part of the core services that need to be addressed at LAX, in Chapter I.4.

Surges are more difficult to recover from than outages because they trip protective circuits on conveyances, especially the new escalators; the software systems in each conveyance must be individually rebooted (a 20-minute process) before it can be used by passengers.

LAX is sensitive to its power problems, because it is a 24/7/365 operation, and has little leeway for "down time" for recovery. It has been meeting monthly with LADWP regarding the issue.

Proposed Actions. LAWA must operate safe and welcoming facilities within the context of the City of Los Angeles's overall directions and priorities.

LAWA must work collaboratively to do what is in the overall best interest of Los Angeles. For government relations, KH developed a series of goals:

KH's Proposed Goals for LAWA: Government Relations

Supporting LA City's Interests – LAWA supports the fiscal well-being of LA City by operating fiscally sound, welcoming and safe airports that contribute to the economic growth of the region through jobs, tax revenue, trade, and other factors. LAWA furthers the successful implementation of LA City goals, including the Mayor's Sustainable City pLAn.

Supporting LAWA's Interests – LAWA advances its informed interests, as defined by its mission and validated by BOAC, with government and public agencies at all levels, as well as with industry, unions, and the public.

Mechanisms and Systems – LAWA ensures that systems are in place to advocate for its mission as it relates to governmental action at all levels. Advocacy mechanisms are assessed, on the basis of the level of support LAWA garners for its initiatives.

Communication – LAWA Government Relations communicates in a timely fashion to relevant entities inside and outside of the organization on matters that could impact LAWA. This process is supported within LAWA by swift and accurate communication of needed information to Government Relations.

PROPOSED ACTION STEPS

1. LAWA's executives should discuss KH's proposed goals, refine them as necessary, and develop a set of goals on government relations, which LAWA embraces, communicates, and reflects in its efforts.
2. LAWA should increase transparency of LAWA's position on specific issues of interest to City Hall and the public.
3. LAWA's executives should strengthen working relationships with City Hall and engage key City Council members regarding important issues so that they have the necessary information and understand the context when considering LAWA or BOAC actions and recommendations.
4. LAWA should continue to collaborate with City departments to address LAWA issues, leverage LAWA's economic impact, and support LAWA's environmental initiatives.
5. Because of the complexity of the situation, LAWA should continue to work with LADWP and relevant City of Los Angeles representatives and departments to mitigate surges and power outages at LADWP.
   5.1. LAWA might explore entering into an effective interagency request system with LADWP.

Internal Audit

The mission of LAWA's Internal Audit is to:

- Provide independent assurance that public funds are spent appropriately and efficiently and in accordance with applicable laws and ordinances
- Promote transparency, strengthen public accountability, and increase efficiency
- Help prevent fraud, waste, and abuse
- Conduct independent performance, compliance, and financial related audits

RECOMMENDATION I.3.7: LAWA MAY REDUCE LOSSES AND IMPROVE PERFORMANCE WITH A STRONGER INTERNAL AUDIT FUNCTION WITH BOAC OVERSIGHT.

Finding. Internal audit functions have been a low priority at LAWA in the last few years.

LAWA lacks an active Audit Committee on BOAC and a robust Internal Audit function.

LAWA's BOAC Audit Committee is inactive. Audit committees' roles have evolved with the passage of the Sarbanes-Oxley Act of 2002. Most U. S. corporations, particularly publicly traded companies, have audit committees as operating committees of the boards of directors. Not only are audit committees a prevailing practice in corporate America and international corporations, they are also a practice frequently used by not-for-profit organizations.

*According to the Institute of Internal Auditors (IIA), **global public sector agencies should have an audit committee.***

Source: Global Public Sector Insight: Independent Audit Committees in Public Sector Organizations, IIA, June 2014.

The audit committee serves an important role in protecting the public's interests in a governmental agency. According to the International Federation of Accountants, public interest is defined as *"the net benefits derived for, and procedural rigor employed on behalf of, all society in relation to any action, decision or policy."*[29] As such, the audit committee can help ensure that the decisions made at LAWA are based on objective analysis and credible information that result in a better future for Los Angeles and the region.

LAWA leadership has downplayed the important role of Internal Audit. For the past few years, the Internal Audit Division has served primarily as a "clearinghouse" for many outside audits of LAWA, such as audits by the California Department of Transportation (Office of the Inspector General), Office of the Controller, FAA, TSA, and Los Angeles County Civil Grand Jury.

In 2011, Internal Audit prepared a risk-based Audit Plan, which recommended four "Top-Tier" audits; only one was approved to be conducted. The conducted audit involved the Airports Development Group (ADG) contractor, Gensler, and one of its subcontractors regarding an overbilling issue; a follow-up audit was also conducted.

29 International Federation of Accountants, Policy Position Paper, "A Definition of Public Interest," June 2012.

Some of the other shortcomings in LAWA's approach to Internal Audit are:

- No recent audits of prime construction contractors have been performed or overseen by Internal Audit; there is no immediate evidence of a rigorous audit of ongoing construction contracts.
- Audits of contracts valued at $2 billion were skipped in favor of audits with less financial risk (e. g., petty cash).
- There is no apparent "arm's length" audit of parking lot financial operations, despite its significant revenues of $87.6 million (discussed further in Chapter I.5, Recommendation I.5.7).
- Results of audits of outside jurisdictions, such as Residential Sound Insulation audits of the Cities of Inglewood, El Segundo, and LA County, were encouraged.
- LAWA only budgeted for a staff of three in Internal Audit to cover a $1.1-billion enterprise.

Proposed Actions. BOAC and LAWA leadership should recognize Internal Audit as a critical function as part of public accountability and best business practices.

The proposed actions are two-fold and involve strengthening the roles and responsibilities of BOAC's Audit Committee and LAWA's Internal Audit capabilities.

PROPOSED ACTION STEPS

1. BOAC should re-activate its Audit Committee
2. The BOAC Audit Committee should:
   2.1. Develop an Audit Committee Charter; the Audit Committee Charter should include oversight of:
      2.1.1.Financial reporting, internal control framework, and public accountability reports and disclosure
      2.1.2.Monitoring of changes to accounting policies and principles
      2.1.3.Regulatory compliance, values and ethics, and whistleblower hotlines
      2.1.4.Risk management policies and practices
      2.1.5.Selection, performance, and independence of the external auditors
      2.1.6.Receipt of audit results from both internal and external auditors
      2.1.7.Recommendations to BOAC and management action reports within the scope of the Audit Committee's charter
   2.2. Follow the charter as a means of building trust and confidence in agency management
   2.3. Review, approve, and ensure the completion of a risk-based audit plan prepared by the Internal Auditor
   2.4. Provide guidance regarding the audit cycle, the assignment of audits to the risk tiers, and the frequency with which high-, medium-, and low-tier audits be conducted
   2.5. Require regular reports regarding how the LAWA organization responds to audit findings and recommendations, so Audit Committee members have assurance that the issues raised in an audit are being addressed
   2.6. Monitor LAWA management's implementation of this IEA Survey Report's recommendations
   2.7. Consider inclusion of some areas identified in this IEA Survey in need of further investigations:

2.7.1. Procurement (discussed in Recommendation I.5.6)
2.7.2. Parking operations (discussed in Recommendation I.5.7)
2.8. Monitor Internal Audit's performance via follow-up surveys after an audit to assess:
2.8.1. *Audit process.* The audit objectives and audit progress were clearly communicated. Areas of concern were solicited and considered.
2.8.2. *Audit staff.* The audit team conducted the audit in a professional and technically proficient manner.
2.8.3. *Audit report.* Audit results were accurately reported with logical and reasonable recommendations. Adequate time was given to respond to the draft report. The overall time to complete the audit and issue the final report was acceptable.
2.8.4. *Overall satisfaction.* Overall, the audit added value and provided meaningful results.
3. LAWA's executives should establish a more active and independent Internal Audit function, with solid-dotted line relationships between Internal Audit and the Chief Executive Officer (CEO) and BOAC Audit Committee (also discussed in Recommendation I.2.4).
3.1. Note: This reporting relationship is important if there are findings associated with his/her direct supervisor or others up the chain of command because it provides an appropriate avenue to bring forward findings for review and action. This safeguard is essential to both the fact and perception of Internal Audit independence.)
4. LAWA executives should establish a Code of Ethics, which LAWA communicates and embraces in all of its efforts.
5. Internal Audit should continue to monitor and support external audits, conducted by the City Comptroller, by the State, and by Federal Agencies.
6. BOAC and the LAWA executives should establish a larger budget item to adequately staff and perform audits by Internal Audit, Office of the Controller, or third-party firms.
7. Internal Audit can expand its capabilities in performing and monitoring larger audit efforts, such as LAMP, by collaborating and using its Master Agreements with external auditors and establishing a Memorandum of Understanding (MOU) with the Office of the Comptroller.
7.1. Funding for these agreements will need to be provided for, and approved to by the proposed Audit Committee of BOAC.

A re-invigorated BOAC Audit Committee and strengthened LAWA Internal Audit function could:

- Confirm the integrity and effectiveness of key program areas
- Increase the confidence of external stakeholders in LAWA management and operations
- Reduce risk of financial losses
- Ensure that LAWA's most important assets and activities are regularly and impartially reviewed
- Assist LAWA executive staff in managing risk
- Undertake performance audits to improve efficiency and effectiveness
- Provide visibility and transparency of the intention of LAWA to provide excellent and responsible public service

I.4: LAX GUEST EXPERIENCE

This chapter discusses a framework for developing and monitoring Guest Experience performance at LAX. Chapter II.3 delves more deeply into the Guest Experience Balanced Scorecards (BSC) – one for core services and the other for value-added services to position LAX as a world-class airport.

INTRODUCTION

LAX Modernization and Future Transit Lines

As already discussed, LAX is the primary airport serving the Southern California region, and serves as a major international gateway with flights to six continents. LAX served a total of 74.9 million passengers in 2015, 6% growth over 2014 and making it the No.2 busiest airport in the United States.

Los Angeles World Airports (LAWA) is working to improve the guest experience. As discussed in Chapter I.1 on "Strengths and Accomplishments," since 2008, LAWA has made significant strides in advancing LAX modernization efforts, including a major overhaul and expansion of the Tom Bradley International Terminal (TBIT). Several airline tenants have also conducted significant modernization of their terminals.

Since 9/11, LAWA has been working to use better processes and technology for screening checked baggage and items. "In-Line" inspection systems use conveyor belts to automatically screen, sort, and track checked items, including Explosive Detection Systems (EDS), that can process thousands of bags per hour. The EDSs are monitored and can trigger an alarm if something suspicious is detected that may warrant a physical inspection. Although LAWA has made progress in installing in-line baggage, some terminals (e. g., T1) still do not have that capability.

In addition, as also discussed in Chapter I.5, LAWA completed the preferred concept plan for the LAX Landside Access Modernization Program (LAMP) to improve land access to LAX. In December 2015, BOAC approved the Second Modernization Program at LAX, including a 2.2-mile Automated People Mover (APM) that will link a Consolidated Rent-A-Car Center (CONRAC) with a new LA Metro Crenshaw/LAX station and the LAX terminals. At an estimated cost of $5 billion, this program will be the largest public-private partnership procurement in the history of California. The APM will have 6 stops:

- 3 stops within the Central Terminal Area (CTA) with pedestrian walkway systems to airport terminals, parking garages, and fixed facilities
- 1 stop at a new Intermodal Transit Facility (ITF West), where passengers can be dropped off by private cars as well as public transportation services (rail cars and buses), and where "meeters and greeters" can wait to greet travelers
- 1 stop at a second ITF (ITF East) at the new LA Metro Crenshaw/LAX at 96th Street and Aviation Boulevard, just west of CONRAC near the 405 freeway

- 1 stop at the new CONRAC, which will relocate existing rental car companies into one location adjacent to the 405 freeway

Los Angeles Mayor Eric Garcetti observed, *"This $5-billion project adds to the continuous effort to transform LAX into the world-class airport that Los Angeles deserves."*

FINDINGS AND RECOMMENDATIONS

KH worked with LAWA's existing Guest Experience Working Group to:

- Focus on measurements important to guest experience, defined as passengers and "meeters and greeters"
- Identify potential key indicators, including what metrics to include and exclude so as not to overwhelm the effort with an excess of information
- Gather available information
- Modify indicators, as needed, to incorporate currently gathered or available information
- Discuss how to tell a complete story when multiple jurisdictions are involved in the provision and measurement of the guest experience
- Provide data for the BSC and IEA Survey Report (this document)

Guest Experience Initiative

RECOMMENDATION I.4.1: LAWA SHOULD CONTINUE ITS GUEST EXPERIENCE EFFORTS, TIED TO BALANCED SCORECARD (BSC) PERFORMANCE MEASUREMENTS.

Finding. LAWA is focused on the need to improve the guest experience at LAX as a strategic priority.

As discussed in Chapter I.1 on "Strengths and Accomplishments," Mayor Garcetti established "Guest Experience" at LAX as a priority for LAWA in early 2015.[30] LAWA acknowledges that it must work closely with the entire LAX airport community to ensure that the Guest Experience initiatives undertaken by airlines, LAWA, and all other tenants and stakeholders align. The aim is to enhance LAWA's ability to *"…provide excellent, seamless airport experiences… regardless of who is responsible for delivering specific services."* The Mayor also encouraged LAWA and its tenants to nurture a hospitality mindset of "Guests" as contrasted with "Customers."

Guest Experience Standards and Actions to Date

As highlighted in Chapter I.1, the Guest Experience Working Group has begun to define Guest Experience standards, developed the LAXceptional Xperience brand, and discussed objectives and such issues as:

- **Guest Impacts:** What are the impacts on the guests – positive and negative (i. e., convenience, hospitality, time, efficiency, wayfinding, stressful/calming, etc.)?
- **Guests Types Impacted:** What type of guests will be impacted (i. e., business, leisure, domestic, international, "meeters and greeters," families, guests with special needs)? Who will benefit most from a new guest initiative?
- **Guest Feedback:** What is the current feedback concerning the current service or satisfaction level from these types of guests (complaints, comment cards, social media, focus groups, surveys, etc.)?
- **LAXceptional Xperience Service Standards:** What service standards are required to ensure consistency of exceptional service delivery in compliance with the LAX brand?
- **Collaboration Plan:** How well has LAWA briefed or consulted with those within the airport community who will be impacted by a new guest initiative?
- **Communication Plan:** How is LAWA going to communicate with guests and keep guests informed regarding a new guest initiative and its benefits/impact on the guests? What improvements are needed in

LAXceptional Xperience

LAX Brand Statement

At LAX, we strive to make our guest visits efficient, hospitable and memorable by providing modern, world-class facilities and services that showcase the ambiance and excitement of Los Angeles and the lifestyle and warmth of sunny Southern California.

It's all about an LAXceptional Xperience!

30 Memorandum from Barbara Yamamoto, Guest Experience Team, to all LAWA employees, May 27, 2015.

signage, public address announcements, Internet, media, social media, or other areas?

- **Sensory Clues:** What will guests SEE (barricades, construction material, signage); HEAR (noise); SMELL (odors); TASTE (food/beverage); TOUCH; and FEEL (combined with opportunities to de-stress, recompose, inform, enjoy, and delight)?
- **Sense of Place:** How well does each initiative enhance an *LA* ambiance and *LA* locality?
- **Safety:** How can we reduce or eliminate safety issues that may impact guests?

In May 2015, the Guest Experience Working Group briefed the Board of Airport Commissioners (BOAC) about the initiative, as a LAX-wide *"…cultural change that will complement our hallmark capital program in the re-imagining of LAX"* through a $1.5 million program of surveys, mystery shopping, training, and rewards and recognition.[31] In addition, the Guest Experience initiative has:

- Adopted a hospitality mindset and created an LAX airport brand statement
- Communicated the Guest Experience concepts through briefings and a LAX Guest Experience Information Sheet for internal and external stakeholders
- Drafted Requests for Proposal (RFPs) for training, performance management, and rewards/recognition program
- Drafted standards for "Attitude, Appearance, and Knowledge" for the LAX community
- Incorporated the Guest Experience into administrative processes, including BOAC report reviews, hiring processes, and new employee orientation
- Created opportunities to surprise and "wow" guests, including holiday activities, special events, and promotions
- Established a review process to assess positive and negative impacts on guests
- Conducted curb-to-gate workshops with the LAWA Working Group
- Created the Guest Experience Liaisons (GELs) to "adopt" the guest experience in each terminal
- Identified and trained Guest Experience Members (GEMs) to be available within the LAX terminals

In the near future, LAWA plans to install Los Angeles images in the Federal Inspection Services (FIS) area of TBIT, as part of the national Brand USA/Market the Welcome effort.

Guest Satisfaction Surveys

LAWA has retained the Airport Council International—North America (ACI-NA) to conduct the Airport Service Quality (ACI/ASQ) survey to benchmark LAX with other international airports. ACI will conduct the passenger survey in the first quarter of 2016. The survey results will provide greater insights into levels of satisfaction with LAX, by terminal, based on feedback from guests currently traveling through LAX. Moreover, the ACI/ASQ results will be complemented with a separate LAWA contract with another survey company (Unison) early next year.

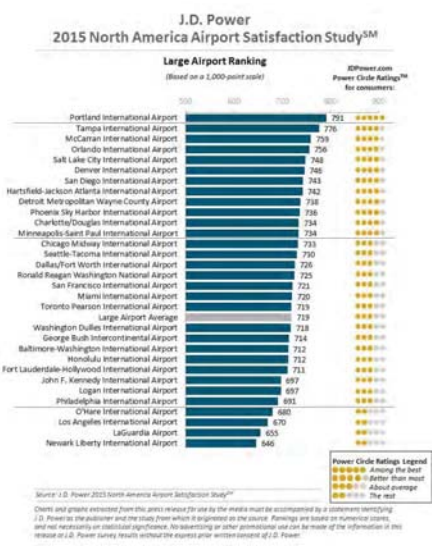
The upcoming 2016 ACI/ASQ survey will be important for LAWA because LAX is beginning to overcome past negative perceptions, formed before the current set of modernization initiatives. For example, J. D.

31 Memorandum from Barbara Yamamoto, Guest Experience Team, to all LAWA Employees, May 27, 2015.

Powers released the results of its 2015 North American Airport Study, an online survey of 20,000 passengers, including approximately 400 to 500 familiar with LAX, on December 16, 2015.

The J. D. Power survey assessed both large- and medium-sized airports in North America on such factors as access, terminals, check-in, screening checkpoints, airport shopping, and baggage claim. The largest airport average is 719, on a 1,000-point scale. Overall passenger satisfaction with the airport experience averaged 725 points on a 1,000-point scale. This average is an increase of 35 points since the survey was last administered in 2010.

LAX ranked 29th out of 31 large airports with a score of 670, which placed it above Newark Liberty International Airport (EWR) in New Jersey and LaGuardia Airport (LGA) in New York City. Chicago O'Hare International Airport (ORD) was ranked slightly higher than LAX.[32]



32 J.D. Power 2015 North America Airport Satisfaction Study. http://www.jdpower.com/press-releases/2015-north-america-airport-satisfaction-study and http://www.jdpower.com/press-releases/2015-north-america-airport-satisfaction-study#sthash.mka9Fb1i.dpuf and http://www.usatoday.com/story/travel/flights/2015/12/16/jd-power-airport-satisfaction-study/77375388/

There is an important caveat about the J. D. Power survey results. Although the results may be an indicator of the traveling public's perception of LAX, the respondents may or may not have recently traveled there so their assessments may be based on dated experiences. Moreover, the survey results are an overall score as contrasted with scores by terminal. The experiences at LAX differ significantly based on what terminal a guest uses.

Despite these caveats, the survey results help to identify and reinforce LAWA's understanding of what is important for improving guest experiences. According to the J. D. Power survey:

- Key factors influencing guest satisfaction were terminal facilities, specifically stores, dining, restrooms, and gate-side seating.
- Timing and efficiency were important factors; for example:
  - Guests who took fewer than 5 minutes to check in their baggage were more satisfied; levels of satisfaction dropped when check-in of baggage took longer.
  - Guest satisfaction dropped when security processing took more than 10 minutes.
- Clean and maintained spaces were important, including clean restrooms and waiting areas near the gates, unstained carpeting and furniture, and trash removal.
- Gate-side satisfaction improved when announcements were clear, and when sufficient seats and electrical outlets were available.
- Airport accessibility was important. Curb space for dropping off travelers was an important consideration.

Concessions are a major source of revenue for an airport. At LAX, LAWA's concessions generate $1.5 billion in total revenues. Table I.4a shows growth in revenues, particularly in terms of Food & Beverage (12.0% sales increase) and Retail (13.1% sales increase) as LAWA modernized its facilities between FY 2013 and FY 2015:

Table I.4a: Concession Revenues Generated at LAX: FY 2013 through FY 2015

Concession Sales (LAX)	FY 2013	FY 2014	FY 2015	% Change Over Prior Year
Advertising	$ 28,667,556	$ 23,402,759	$ 22,557,300	-3.6%
Duty Free	$ 161,263,832	$ 184,558,767	$ 195,340,502	5.8%
Food & Beverage	$ 204,713,565	$ 234,639,213	$ 262,834,301	12.0%
Car Rentals	$ 697,843,055	$ 763,058,881	$ 785,410,890	2.9%
Retail	$ 102,700,022	$ 135,730,250	$ 153,561,722	13.1%
Services	$ 83,586,476	$ 92,989,747	$ 93,810,455	0.9%
Totals	**$ 1,278,774,506**	**$ 1,434,379,618**	**$ 1,513,515,170**	5.5%

Another key finding of J. D. Power is that satisfied passengers spend more at the airport, which translates into greater revenues for the airport. ***LAX has been working on upgrading its concessions and the results show an increase in average passenger spending patterns:***

- At LAX in 2014, enplaned passengers (EPAX) spent an average of $38.39, including duty free, food & beverage, car rentals, and retail – a 7% or $2.52 increase over 2013's average spend of $35.87.
- While in LAX terminals, the average passenger spent $14.41 in 2013 and $16.16 in 2014 – an increase of 12.2% or $1.75. This dollar amount is more compatible with what "pleased" travelers spend, according to the J. D. Power survey.

The J. D. Power survey also found differences by type of traveler:

- Younger travelers (Gen X and Millennials) were more satisfied and spent more money while at the airports. When spending 50 minutes at a terminal, Gen X/Millennials spend an average of $18 to $25; Pre-Boomers/Baby Boomers spent an average of $7 and $10, respectively.[33]
- Travelers who combine business with pleasure have higher satisfaction ratings. Business travelers spend more than double than leisure travelers spend when in the terminals.
- Spending levels also vary based on how long passengers are in the terminals:
  - 30 or fewer minutes ($41.79 for business versus $20.41 for leisure travelers)
  - 120 minutes or longer ($50.89 for business versus $17.98 for leisure travelers)[34]

33 J.D. Power defines generational groups as Pre-Boomers (born before 1946); Boomers (1946-1964); Gen X (1965-1976); Gen Y or Millennials, (1977-1994); and Gen Z (1995-2004). Respondents had to be 18 years old to participate in the study; therefore, the analyses for Gen Z includes only those born between 1995 and 1997. http://www.jdpower.com/press-releases/2015-north-america-airport-satisfaction-study#sthash.mka9Fb1i.dpuf

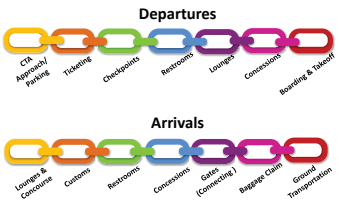
34 J.D. Power 2015 North America Airport Satisfaction Study. http://www.jdpower.com/press-releases/2015-north-america-airport-satisfaction-study and http://www.jdpower.com/press-releases/2015-north-america-airport-satisfaction-study#sthash.mka9Fb1i.dpuf

Finally, according to J. D. Power, dissatisfied customers are more vocal and likely to share their experiences with others, making 13 negative comments, while satisfied customers average 5 positive comments.

Multiple Factors Influencing Guest Experiences

LAWA developed a "Service Delivery Chain" that pinpoints the key "touch points" with guests as they progress through LAX – for departures and when arriving.

Service Delivery Chain



LAWA is aware that improving the guest experience requires changes internally – effective and efficient airport infrastructure and operations, organizational changes, technology upgrades, and a work culture change. It also requires strong working relationships with LAWA's partners and stakeholders (e. g., Federal Aviation Administration (FAA), cargo, airlines, Transportation Security Administration (TSA), etc.), as discussed in Recommendation I.4.6.

The timing of KH's IEA Survey of LAWA was opportune because it coincided with the Guest Experience Working Group's identified need to develop performance measurements.

Guests can have either positive or negative experiences at various "touch points" as they work their way into and through LAX to board their flight.

Guests arrive at LAX by private automobile, car service, taxi, and bus. They use entrances on northbound or southbound Sepulveda Boulevard; the 96th Street Bridge, or westbound Century Blvd. Depending on their purpose, guests drive or are driven to the upper or lower-level curbside or lower-level parking lot entrances. If guests park in the CTA, they walk to the terminals. Those who park in remote lots outside of the CTA arrive in buses and are dropped off at curbside at or near their terminals. Although rail access is currently in advanced planning stages, at this time, the only practical access to LAX is by motor vehicle.

Once at curbside, departing passengers proceed to an airline check-in area to receive boarding passes and check bags. Passengers who have checked in on line and do not need to check bags proceed directly to the TSA Screening Area, where they and their carry-on luggage are screened for explosives and prohibited items. Guests then proceed to the main terminal waiting area, and may use the restrooms, eat, email, or seek some out other amenities.

They ultimately go to their boarding gate.

Proposed Actions. LAX's Guest Experience initiative should build on its work to date and measure and monitor performance and progress made.

LAWA perceives that much of its Guest Experience strategy will be informed by the ACI/ASQ survey. The Guest Experience Working Group should continue its work effort and incorporate the ACI/ASQ survey results into their initiatives, along with the BSC on Guest Experience and other proposed action steps in the IEA Survey Report.

PROPOSED ACTION STEPS

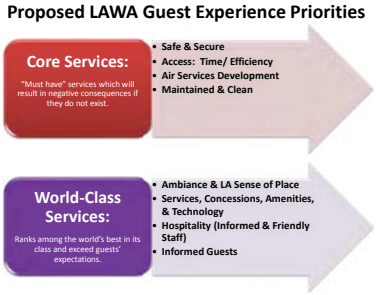
During discussions with the Guest Experience Working Group, several ideas to improve guest experience, as well as the ability to track successes, emerged.

1. LAWA executives should develop a set of goals for Guest Experience, which LAWA embraces, communicates, and uses as a guide in all of its efforts.
2. LAWA's Guest Experience Working Group should incorporate the concepts outlined by Butterfly Consulting,[35] who is working at LAX. These concepts entail:
   - 2.1. ***Vision and branding.*** Build an airport brand – a shared Guest Experience vision and a consistent service delivery strategy to encompass the entire continuum of services provided to LAX guests
     - 2.1.1.Understand that excellent guest service is one of the airport's prime objectives
     - 2.1.2.Develop the LAX brand collaboratively to gain buy-in of the entire airport community
   - 2.2. ***Guests' needs and expectations.*** Focus on guests' priorities and manage performance across the entire service delivery chain
     - 2.2.1.Identify what LAX guests value and want
     - 2.2.2.Design airport experiences from the guests' point of view
     - 2.2.3.Adopt service standards aligned with the airport brand to define service levels
     - 2.2.4.Manage performance LAX-wide
3. The Guest Experience Working Group should:
   - 3.1. Establish service standards
   - 3.2. Monitor LAX's Guest Experience performance against the BSC developed and service-level standards
   - 3.3. Continue to gather data and metrics for measuring progress made
   - 3.4. Routinely report progress made to LAWA executives, BOAC, and the Office of the Mayor
4. The Guest Experience Working Group should analyze the results of the ACI/ASQ survey and:
   - 4.1. Analyze the primary drivers of guest satisfaction
   - 4.2. Develop responses and tactics to improve performance on those drivers
   - 4.3. Develop action plans to enhance the guest experience based on this analysis

In developing performance measurements for guest experience, KH distinguished between core services and world-class services. The graphic provides a framework for Guest Experience priorities and is the foundation for the proposed measurements for "BSC – LAX Guest Experience" in Chapter II.3.

35 Joanne Paternoster, Butterfly Consulting, Airport World Article, January 2016.

Proposed LAWA Guest Experience Priorities



LAWA's Guest Experience initiative is focusing on both world-class and core services, discussed next.

World-Class Services

World-class services involve creating a great ambiance and evoking a sense of being in Los Angeles, not just another airport or at LAX. It also requires that the services, concessions, amenities, and technology be competitive with other world-class airports. Airport staff members – LAWA, airline, concessionaire, and contractor workers alike – need to be informed and friendly. And, finally, efforts need to be made so that guests can independently know what they need to do to navigate the airport and have their questions and needs met.

RECOMMENDATION I.4.2: LAWA NEEDS TO RAMP UP THE SENSE OF LA AND ITS AMENITIES FOR LAX TO BE WORLD CLASS.

LAWA must strive to be "world class" and rank among the best airports in the world for guest experiences.

Finding. Although improving, LAX does not evoke a great and vibrant "Sense of LA."

LAWA needs to create a LA-specific ambiance in world-class facilities. LAWA has made progress by ensuring that local concessions (restaurants and shops) and art exhibits now populate the renovated terminals. In addition, LAWA has posted more LA images in the terminals and LAX images on the columns around the CTA.

During KH's interviews, many City officials still believe more can be done to project a vibrant LA image at LAX. There was a consensus that passengers are not able to distinguish LAX from other airports. In contrast, many of the better-rated airports have incorporated aspects of their cities into their environments, such as:

- Charlotte Douglas International Airport (CLT) with its Southern white rocking chairs and potted trees
- Denver International Airport (DEN) with its Rocky Mountain rooftop and fossil imprints in the flooring
- Miami International Airport (MIA) with its Cuban accent
- Pittsburgh International Airport (PIT) with its Warhol and Calder artwork
- Funky Austin (TX) airport with its "Stay Weird" motif
- Long Beach airport with its modernized main terminal and historic Art Deco architecture
- …even Las Vegas airport with its slot machines. Whether or not passengers like to gamble, upon arrival, they know where they are.

That sense of place is not usually the case at LAX, even though Los Angeles (LA) has world-wide recognized sites and destinations to promote. To create a sense of LA will require show-casing LA's natural resources and vistas (Pacific Ocean, beaches, mountains, canyons, whale-watching, etc.); LA's art scene and cultural centers (Griffith Observatory, The Getty Center, Getty Villa, Los Angeles County Museum of Art (LACMA), California Science Center, Exposition Park, Natural History Museum of LA County, Hammer Museum, Museum of Tolerance, Museum of Contemporary Art (MOCA), Gene Autry National Center, Page Museum at the La Brea Tar Pits, Japanese American Museum, The Brewery, etc.); LA's downtown center (DTLA, LA Live!, historic Broadway corridor, Grand Central Market, City Hall, Disney Music Center, the subway system, etc.); the entertainment industry (NBC, CBS television, Disney, Warner Brothers, Sony, comedy shows, etc.); nearby destinations (Los Angeles Zoo, Dodger Stadium, Hollywood Bowl, Universal Studios, Disneyland, Knott's Berry Farm, etc.); LA's parks and fun activities (CicLAvia, art walks, Barnsdall art workshops, Greystone Mansion gardens, Grand Park, Echo Park, etc.); LA's famous landmarks (colleges and universities, Hollywood sign, Bradbury Building, Jet Propulsion Lab, etc.); and LA's diverse and fun neighborhoods (Hollywood, Silver Lake/Echo Park, Venice Canal, Santa Monica, Culver City, Beverly Hills, NoHo, Korea Town, Little Tokyo, Thai Town, beaches communities, Ventura Boulevard, etc.)… And the list goes on. Some of these destinations would pay to be part of promoting and creating a sense of LA! via photo murals, décor motifs, or other creative experiences.

LAWA should develop terminal environments that nurture positive experiences with a "WOW!" factor that delights guests that they are in LA.

LAX has many featureless walkways between its terminals, bare hallways from the gates to baggage claim, stark waiting space for guests at the bottom of the escalators used by arriving passengers, undecorated baggage claim areas, etc. – all of these locales are opportunities for an improved ambiance and reinforcement of the LA image. Done properly such art can both communicate a sense of place and reassure passengers that they are going in the right direction.

For example, the long underground corridor connecting United Airlines' gates at ORD has an iconic use of George Gershwin's "American in Paris" orchestration with an overhead kinetic art display that passengers experience as they move along.

These efforts will require strong partner/stakeholder relationships, so that the airline terminal operators cooperate in "Los Angelizing" LAX.

Finding. LAX amenities and available concessions throughout the terminals are not yet world class.

World-class airports ensure that the desired concessions, especially multiple food and shopping opportunities, technology, and amenities, are available on both sides of the security checkpoint.[36] As already mentioned, LAWA has focused on upgrading the concessions. But even at the newly renovated TBIT, the waiting area for meeters and greeters is still dark, and crowded with insufficient seating and difficult sight lines. Meeters and greeters have little information about international passengers clearing customs. Consequently, meeters and greeters stand crowded against barriers and wait to watch for their guests to arrive.

With the closure of the Theme building, the only terminal with sit down restaurants outside of security where departing passengers can check in and then share a meal with friends and relatives is TBIT.

LAWA has done even less in terms of amenities. LAX currently has:

- 6 nursing rooms (with plans for 8 by year-end (1 per terminal))
- 2 shoeshine stations
- Charging stations in every terminal (including charging stations provided by advertising and airlines (seat, stations, and laptop "lanes"), and LAWA-powered seats) but some concerns that are still not sufficient charging stations
- 1 pet relief space (with plans for 8 by 2017 (1 per terminal))

These numbers of amenities, given the number of terminals and passengers at LAX, are meager and lower than the level of service expected by today's passengers.

World-class airports overseas, particularly in Asia, offer extensive amenities. Even some domestic airports are thinking more creatively about amenities, such as:

- Free applications (apps) to pre-order your meals that will be delivered to your gate ("B4 You Board" at ORD and John F. Kennedy Airport (JFK))

36 KH distinguishes between concessions that guests pay for versus amenities that LAWA makes available free of charge. Concessions are revenue generators, whereas amenities may or may not generate revenue for LAWA.

- Live music, such as the pianist in the central corridor at the Detroit airport (DTW) or string quartets and Baroque guitarists at George Bush Intercontinental Airport Houston (IAH)
- Kids' play zones (ORD, Dallas/Fort Worth International Airport (DFW), and TBIT at LAX)
- Yoga rooms with free loaner mats and cleansing wipes (originated at San Francisco International Airport (SFO))
- Art collections (DEN and IAH (including a brochure as a guide to IAH's 26 pieces of artwork))
- Interactive light tower triggered by motion-detection camera (Denver International Airport (DEN) and TBIT at LAX)
- Interactive games (e. g., "The Nation's Game" on NFL at SFO, scavenger hunt for marine plants and vertebrates inlaid in terrazzo floors by the artist Michele Oka Downer at MIA)
- Outdoor terraces with dog walks (JFK), 24,000-square-foot container vegetable garden that guests can visit at curbside (JFK), and panoramic views with the sun setting over the Rockies (DEN)
- Airport-based therapy sessions that culminate in a flight (www. fearlessflight. com at Phoenix Sky Harbor International Airport (PHX) and www. fofc. com in SFO)
- Baggage storage services for passengers with long layovers either:
  - Behind security so passengers can explore the airport (MIA)
  - Before security for passengers who want to explore the city or surrounding areas

Some airports are broadening their concession offerings to include what many call amenities – services beyond food and beverages – for a fee:

- Clinics offering flu shots (ORD)
- Mini-offices with daybeds and private bathrooms (DFW)
- Spa services (DFW)
- One-day priority access, available for premium economy passengers (LGA)

Selecting and implementing the appropriate amenities will require market research to confirm exactly what appeals to LAX guests.

Times and expectations also change. What is sometimes considered world-class shifts over time as an expected service, such as Wi-Fi connectivity or charging stations. LAWA, similar to many airport operators, faces the challenge of keeping abreast of these new expectations. Moreover, LAX's Wi-Fi services lag behind other airports in terms of speed. RootMetrics ranks cellphone service quality and availability at the nation's top airports. LAX ranks No.48 out of 50 airports; ATL is No.1. It can take 38 minutes to download a 45-minute video at LAX via AT&T as compared to 2 minutes at ATL.

Proposed Actions. LAWA should dramatically enhance its sense of LA and amenities at LAX.

LAWA has lots of opportunities to enhance the sense of LA and amenities at LAX.

PROPOSED ACTION STEPS

1. All LAWA divisions should collaborate to foster exceptional ambiance throughout LAX, creating opportunities that delight guests by:
   - 1.1. Increasing Wi-Fi speed
   - 1.2. Offering substantially more charging stations
   - 1.3. Collaborating with WAZE, Go LA, Google, and other app developers to include detailed information about LAX in their offerings
   - 1.4. Leveraging emerging technologies to optimize operations and help guests, particularly in wayfinding
   - 1.5. Modernizing the facilities
   - 1.6. Offering delightfully memorable experiences, including art, amenities, concessions, music, etc.
   - 1.7. Continuously innovating and improving
2. LAWA executives should ensure the LA theme emphasizes Los Angeles landmarks, not just LAX – the sense of having arrived in LA should "pop" for all guests.
3. LAWA's Guest Experience Working Group should use the results of research, such as the ACI/ASQ survey, to inform them regarding the kinds of amenities that are most attractive to LAX guests.

RECOMMENDATION I.4.3: LAX NEEDS TO FOCUS ON IMPROVING ITS REPUTATION FOR HOSPITALITY AND HELPING TO MAKE IT EASIER FOR GUESTS TO NAVIGATE LAX.

People are critical factors for successful guest experiences. When guests are able to find the information they need on their own, they can move quickly to their destinations. When guests need to seek out information from airport workers or media sites, both need to be friendly, informative, and accessible.

Finding. LAWA guests do not always feel welcomed with friendly, informed airport workers.

Guests do not care whether their questions are answered by an airline employee, a LAWA employee, or a contract worker. To guests, the combined actions of all these people generate their LAX experience. How guests are treated can make or break the traveling experience. Helpful airport workers are:

- Knowledgeable and committed to ensuring they imparted the needed information so the guest knows what to do
- Committed to shared hospitality values, combined with an attitude of wanting to help guests, throughout LAWA and its partners

Finding. LAWA has insufficient sources for keeping guests informed, so guests know what they need to do for a smooth and positive experience at LAX.

The goal should be to enable guests to feel confident that they know what they need to know about getting to, moving through, and leaving the airport. LAWA now has the "LAX is Happening" website, which provides travel tips for each terminal. In general, however, wayfinding is a challenge at LAX.

Despite the fact that LAX is an international gateway, LAX has few signs in foreign languages. When guests exit a terminal, the CTA lower level is often dark, noisy, impersonal, congested, and unclear regarding which direction to walk to get to shuttle services, taxi services, parking lots, etc.

LAWA can use art in its efforts to create a sense of LA in improving way-finding. For example, at PIT, when passengers get off of the APM, there is an art wall mural with silhouettes of people walking in the direction that the passengers need to go.

Proposed Actions. LAWA should continue its efforts to ensure airport workers are knowledgeable and hospitable in combination with improvements in wayfinding for guests.

LAWA should build on Los Angeles's reputation for being a friendly city and create an atmosphere of hospitality at LAX. Increasing the available tools for guests to be able to find their way will result in greater guest satisfaction.

PROPOSED ACTION STEPS

LAWA should increase its focus on the many "little" things that add up to an improved guest experience.

1. ***Routine and consistent communications.*** LAX should communicate frequently and ensure the message is consistently "on-brand."
   - 1.1. LAX should empower guests so they have the right information when they need it.
   - 1.2. LAX should use communications channels that guests prefer.
   - 1.3. LAX should leverage social media and build guest relationships that are mobile, 24/7, and yet human.
2. ***Employee engagement.*** LAWA should understand the importance and value of employee engagement and empowerment by:
   - 2.1. Investing in employees through training
   - 2.2. Building a work culture of continuous improvement and innovation
3. ***Wayfinding and languages.*** LAX should improve wayfinding by:
   - 3.1. Working with commercial partners to develop technology and wayfinding applications that direct people to the proper place and inform them about waiting times through their mobile phones (e. g., Waze, Google, Xerox's Go LA, etc.), discussed further in Recommendation I.4.9
   - 3.2. Posting more signs in different foreign languages, especially in terminals with international arrivals and departures
     - 3.2.1. Wayfinding signs should be translated into Spanish, Mandarin, Korean, and other languages used by significant numbers of guests, particularly in terms that receive international passengers.

3.2.2. Mobile applications can include provisions for language selection, which would be of great utility to guests with limited English skills.

3.3. Posting signs that inform guests where to locate airport information agents who speak their language

3.4. Developing interactive and touch screen maps of LAX and the terminals so guests can locate where they are, what concessions and amenities are nearby, and how they can get to their gates

4. ***GEL/GEM program.*** Guest Experience should enhance the GEL/GEM program so measurements are more quantitative in nature and involve guest input versus reliance on visual inspections.
5. ***Responsiveness to guest complaints.*** Guest Experience should continue to enhance the guest complaint tracking system, so guests' concerns are routed rapidly to the people that can address the problem (e. g., LAWA maintenance, airlines, TSA, etc.).[37]

5.1. LAWA should post hotline phone numbers on mirrors in the restrooms so users can quickly alert ARCC of any problems (e. g., faulty water shut-off, over-flowing toilets, etc.).

Core Services

Core services are "must have" services that an airport must provide. When an airport does not provide the core services, it typically faces significant negative consequences, including loss of confidence in the viability of the airport. These are "gateway" items. Guests will only consider ranking the airport as "exceptional" *after* core services, such as the ones in the following list, are addressed:

- ***Safe and secure airports*** are needed to gain and keep public trust in airport facilities and operations. Guests must feel safe and secure.
- ***Access: time and efficiency*** is critical so guests know they can expeditiously transit the CTA, park or access terminal curb space, complete security screening, and get to and from their gates. This mobility requires efficient landside, terminals, and airside operations.
- ***Air services*** must ensure the airlines operating out of the airport fly to destinations passengers' desire and have convenient and reliable schedules (air services development).
- ***Well-maintained and clean airports*** ensure that all systems, from power sources to bathrooms, from floors to escalators and elevators, are clean and working.

LAWA must get the core services right "each time and every time," whether it is clean restrooms or courteous and professional staff.

37 LAWA has professional Call Takers (CIRs) in the ARCC, who dispatch the right maintenance personnel immediately as calls come in. The CIRs also help sort out priorities at times when there are insufficient numbers of staff to respond.

LAWA's efforts in air services development was identified in Chapter I.1 as a noteworthy accomplishment with new city-pair offerings, increased countries served, and more nonstop flights. Therefore, the remaining recommendations in this chapter focus on:

- Continuing emphasis on safety and security
- Improving LAWA's other core services, particularly in light of the next round of construction at LAX, which will likely impede efficiency and increase time required to access LAX.

Safe & Secure

RECOMMENDATION I.4.4: LAWA'S HIGHEST PRIORITY IS TO ENSURE THAT THE AIRPORTS ARE SAFE & SECURE.

Finding. Airport safety and security changed dramatically after 9/11 and continues as an ongoing effort requiring constant diligence and vigilance.

Fundamental to any airport operation is safety and security. Unless they are maintained at very high levels, nothing else will register with guests. Since the 1999 IEA Survey, airports around the world have had to deal with challenging airport safety and security risks. Among the most often discussed are:

- ***Terrorist Attacks.*** The attack on the World Trade Center in New York and the Pentagon in Washington, D. C., on September 11, 2001, had a major impact on airport operations. Subsequent terror threats and actions have targeted the airline and aviation industry. Perimeter security, passenger screening, baggage inspection, freight examination, and airport worker identification have been substantially strengthened. For passengers, these changes have resulted in delays and sometimes intrusive searches, which have significantly degraded passengers' experiences at airports. In the past few years, the specter of "lone wolf" attacks has surfaced, including one at LAX in November 2013.

  During this IEA Survey, on November 17, 2015, two Air France flights inbound to Paris were diverted and grounded because of bomb threats; one of them was departing from LAX. Such situations are difficult to anticipate, and can be damaging to guest perceptions of an airport, sometimes unfairly. Rapid and effective responses, including clear public information systems, are essential to maintaining public confidence during these events.
- ***Airport health risks.*** Airports sometimes need to screen incoming passengers for signs of communicable disease including fever, heavy coughing, and other symptoms. The Centers for Disease Control and Prevention (CDC) periodically recommends taking temperatures of at-risk passengers – a precautionary measure that Asian airports did in past years with flu influenza breakouts or airlines have done with countries recently affected by Zika, a mosquito-borne virus, particularly in Latin America. Flight crew and cabin cleaners have particularly raised concerns because of their regular contact with passengers and their personal effects.

In addition to these high-profile risks to airport safety, there are a number of less prominent, but equally important elements to guard against. These elements include:

- ***Airfield safety.*** It is essential that traffic rules be enforced on the active airfield to prevent serious property damage and potentially serious injuries. It is also important to ensure that all airfield vehicles are properly identified.
- ***Personal safety.*** Personal safety is a requirement in terminal areas and parking lots. At night, when visibility is limited, airport staff – especially LAX Airport Police – must be vigilant to ensure that guests coming and going from the terminals to the parking lots have both the perception and reality of safety.

  In addition, there are special cases where real or suspected threats to the airport require the evacuation of one or more terminals. Under these stressful circumstances, it is doubly important to have carefully crafted plans informed by experience to conduct evacuations and care for guests and employees, who will be confused and possibly traumatized. At LAX, Law Enforcement & Homeland Security, LAXPD, and Operations, Maintenance, & Emergency Group (OMEG) have such plans, and must continually refine them as experience demonstrates shortcomings and weak points.

  Of immediate concern should be systems to inform and advise guests throughout LAX if/when such events occur, including directions to stay in place or move to safe areas. Training is also needed for non-sworn and operational workers, both LAWA employees and others, so they can serve as assets in these emergency situations.
- ***Property security.*** Property security consists of:
  - **Baggage theft.** Consistent enforcement efforts are made to keep LAX from becoming a target of opportunity for baggage theft, including plain-clothes police surveillance of baggage claim areas. Some airports and air carriers check baggage claim stubs against bag tags randomly to reduce the opportunity for theft. LAX once did such bag checks, but has since stopped that practice.
  - **Cargo theft.** In collaboration with other law enforcement and security agencies, LAWA is taking steps to minimize the loss of cargo from airfield facilities. Cargo theft can be a sophisticated enterprise, and considerable effort and technology are required.
  - **Auto theft and vandalism.** There are thousands of cars parked at LAX and VNY. The police take persistent actions designed to prevent vandalism, theft of contents, and theft of the autos themselves. Failure to do so threatens the substantial parking revenues LAWA realizes from its parking operations

- The Law Enforcement & Homeland Security Division has several programs in place to reduce auto theft and vandalism, such as "iWATCH and "Lock It, Hide It, Keep It."[38]
- These programs are regularly publicized via social media, during news conferences, and in holiday travel interviews/messaging.
- Signs about these programs are posted in LAWA's parking structures at LAX.

Law enforcement uses the FBI's Uniform Crime Reporting (UCR) program to report crimes. Part I offenses are more serious and violent crimes against people and property. The number of Part 1 Crimes per 1 million passengers is a reasonable measure of personal safety at LAX. Table II.4b in Chapter II.4 displays LAX's Part 1 Crimes between 2013 and 2015.

- The total number of violent crimes (aggravated assault, homicide, rape, and robbery) has steadily declined from 14 in 2013, to 9 in 2014, and to 3 in 2015 (year-end estimate).
- Most of the crimes are property crimes (e. g., burglary, theft, auto theft), which range between 523 and 580 per year for the last 3 years.
- LAX averages between 7.5 and 8.1 Part 1 Crimes per 1 million annual passengers (MAP) per year (2013, 2014, and 2015).

Proposed Actions. LAWA should continually strive to protect guest safety and security with increased involvement of non-law enforcement partners.

Airfield safety is highly regulated and under the mandates of the FAA. In this IEA Survey Report, the proposed actions focus on personal and property safety, particularly on the landside and in the terminals, because these are areas that are under LAWA's purview. The proposed goals for these two areas are:

KH's Proposed Goals for LAWA: Airport Safety & Security

Personal safety – Travelers and guests, using LAWA's airports, are and feel safe in and around all LAWA facilities, including parking lots and access routes, in the terminals, aboard aircraft, in the LAX Central Terminal Area, and at VNY.

Property security – Travelers and guests, using LAWA's airports, have confidence that their property is secure in and around all LAWA facilities, including parking lots and access routes, in the terminals, aboard aircraft, in the LAX Central Terminal Area, and at VNY.

PROPOSED ACTION STEPS

1. LAWA executives should discuss KH's proposed goals, refine them as necessary, and develop a set of goals on airport safety and security, which LAWA embraces, communicates, and uses as a guide in all of its efforts.
2. LAWA's Law Enforcement & Homeland Security Division should:

38 http://www.lawa.org/airportpolice/Default.aspx

2.1. Train multiple classifications of employees who work at LAWA including (but not limited to) custodians, concession workers, baggage handlers, wheel chair providers, guest service staff, and parking staff on the correct actions to take in the event of an emergency (e. g., terminal evacuations)
2.2. Open channels of communication to encourage all airport workers to identify opportunities to improve safety and security, including potentially overlooked risk areas
2.3. To the extent possible, conduct periodic drills for various kinds of disaster scenarios, such as earthquakes, fire, or attacks
2.4. Alert other terminals when one terminal is being evacuated regarding the appropriate actions to take (e. g., stay in place or evacuate, including where to go)

Access: Time & Efficiency

LAWA has developed a variety of transportation options into and out of LAX over the years. Vehicular transportation options at LAX include personal vehicles, taxis, shuttle vans, limousines, FlyAway buses, and, most recently, ride-sharing services, such as LYFT and UBER. LAWA has expanded its LAX FlyAway Service to include Santa Monica and Hollywood. The City has also widened Arbor Vitae Street (Airport Boulevard to La Cienega Boulevard) approaching LAX.

There are also various studies that are completed or ongoing, such as the I-105 report for interchange improvements at LAX Airport, Specific Plan Amendment Study, LAX Airport Metro Connector, Coastal Corridor Study, LA Metro green line extension study, and Century Corridor Streetscape Plan, to name a few.

LA Metro is building a light-rail station near LAX. Accessing LAX by rail has historically been challenging. Now under construction are the new LA Metro Crenshaw/LAX Transit Corridor Project and expansion of regional rail connectivity (Expo/Green Lines). This 8.5-mile, $2-billion light rail project will connect the Expo and Green lines, scheduled to open in 2019.

World-class airports generally provide rail access from airports to nearby city centers, including four of the top 5 international airports ranked by Skytrax – Singapore, Incheon, Munich, and Hong Kong. Three of the top U. S. airports in that list, including DEN, SFO, and ATL, also have rail access. Such direct rail access is important because it provides predictable transit times to the airport during peak traffic periods. This predictability is important to:

- Travelers and airport workers, who need to meet firm schedules
- Guests who may find it difficult to drive, or who may feel vulnerable in taxis and confused by urban bus systems

Transportation to/from LAX is LAWA's next challenge. Accessing LAX has become increasingly difficult.

Unlike other international airport best practices overseas (e. g., Singapore, Hong Kong, and Amsterdam), the LA Metro station will not directly come into LAX.

To address the last 2.25 miles into LAX, ***LAWA is implementing significant plans to build the APM, linking LAX with the CONRAC, parking, and the new LA Metro Crenshaw/LAX station.*** Such a solution is not uncommon at domestic airports. LAX's APM connection will be similar to the situation at such airports as SFO, JFK, EWR, Orlando, Oakland (OAK), and MIA airports. SeaTac requires a 4-minute walk from the light rail station to the terminal doors. In Boston, guests take a bus from the nearest subway station. ORD and DEN have direct subway service to the airport, but guests may still have to transfer to other modes to get to the check-in counters. And even in London, guests have to walk a distance or take secondary forms of transportation to reach their terminals.

Best practices do not have the APM outside of security for inter-terminal transfers. At LAX, although a long walk, passengers can walk after security screening between Terminals 4, 5, 6, 7, and 8; LAWA has plans to enable passengers to walk between Terminal 4 and TBIT and eventually TBIT and Terminal 3. In the case of the new APM at LAX, passengers who are making connecting flights in different terminals and who want to use the APM, will have to exit security to get to their terminals and go through security again. This kind of inconvenience adds time and complexities for the traveler in making connections and is not considered ideal (e. g., JFK'S AirTrain). Dallas/Fort Worth International Airport (DFW), George Bush Intercontinental Airport Houston (IAH), and Pittsburgh International Airport (PIT) operate their trains post-security.

If LAX were to be built from the ground up today, it would be different, most likely with central check-in, easy transit access, and remote parking. But LAX is an existing, massive airport that has transportation access challenges. In addition, LAX has its limitations as one of the densest airports in the world.

Adding to the CTA construction and congestion is the announcement by Delta Airlines of its intention to complete a major terminal move at LAX. Delta and LAWA have signed a Letter of Intent[39] for Delta to move from its recent $229-million overhaul of Terminal 5 to a LAWA-renovated terminal, involving the consolidation of Terminals 2 and 3. The new terminal will be transformational, since it will be the largest terminal at LAX.

During construction, LAWA will face the added complexities and challenges in managing interior and exterior passenger flow, similar to what LAWA faced with TBIT. Once built, LAWA will have a significant shift in traffic destination to the "earlier" part of the CTA, which may require improvements and widening of the Terminal 2 and Terminal 3 cutoffs. This longer-term possibility may also affect the planned APM stops or incorporation into the Theme building complex. Moreover, this new terminal will likely motivate other major air carriers to rebuild. ***The future LAX could eventually consist of two unified terminals – one on the north side and the other on the south side – that connect to TBIT.***

39 Note: There are many steps between a Letter of Intent and before a new terminal is built.

RECOMMENDATION I.4.5: LAWA NEEDS TO PROACTIVELY MANAGE CTA CONGESTION DURING AND AFTER CONSTRUCTION.

Finding. In the next few years, guests will face increasing challenges in accessing the CTA because of major construction and rising passenger volumes.

Recent developments at LAX suggest that construction may go on for a number of years, making the need for this function semi-permanent. During LAMP construction, LAWA will face the added complexities and challenges in managing interior traffic and exterior passenger flow, similar to what LAWA faced during the TBIT reconstruction and potentially even more daunting than the TBIT modernization.

Landside strategic components consist of traffic flow, access to parking, and pedestrian flow to and within the terminals. Improved management of CTA traffic is critical to realizing the projected passenger levels at LAX while maintaining even adequate levels of guest satisfaction. LAWA has made significant progress in the past five years by including additional cameras, LAXPD Sergeants, Maintenance Supervisors, and Los Angeles Department of Transportation (LADOT) traffic supervisors in the ARCC.

Landside Strategic Components

Traffic	Parking	Terminals
Approach Roads to LAX CTA Traffic Flow Curb management Pedestrian flows Hotel & Parking Lot Shuttles Airport Access Buses (FlyAway, Santa Barbara Airporter, Super Shuttle, etc.) Cabs, Limousines, Cars for Hire (Uber, Lyft) Safety & Security	CTA Parking Access Remote Parking Safety & Security	Terminal Infrastructure Safety & Security Terminal Services

The traffic flow problems will become exacerbated during LAMP, CONRAC, and possible Terminal 2/3 construction, which will cause major traffic and parking capacity reduction in the CTA. The construction of the APM alone through the center of the CTA will result in:

- Reduced vehicular traffic capacity
- Limited access to parking garages
- Reduced parking capacity
- Guests and construction vehicles competing for space
- Increased congestion on CTA access routes

A number of organizational challenges at LAWA compound the situation:

- ***LAWA lacks organizational focus on landside operations.*** The lack of an organizational focus on the landside operations appears to be one of the most serious faults with the operations of LAX. This function is critical to excellence in guest experience. CTA traffic, roadways, parking, and terminal operations are managed by separate LAX units. The current point of coordination is the ARCC, but that unit is inherently reactive in nature and cannot provide the advance planning and operational anticipation needed. No individual or unit is ultimately responsible or accountable

for the performance of all of the transportation systems and infrastructure that comprise landside operations at LAX.

- ***LAWA has devoted insufficient staffing levels to this function.*** The two existing Landside operations supervisors can neither provide the oversight needed to ensure contractor performance, nor respond to operational issues that arise on a day-to-day basis. Beyond that, there are not enough operations supervisors to monitor service levels in the terminals – service levels that are critical to improving and maintaining desired guest experiences. Existing oversight appears to be conducted when and where possible by staff members who have multiple responsibilities. There may be service breakdowns in some key guest service areas, including the handling of disabled passengers, which have delays before they are reported.
- ***LAWA lacks dedicated traffic engineer expertise.*** During the IEA Survey, the KH team observed traffic situations leading to the CTA that were adversely impacted by uncontrolled lane mergers at critical points, such as the entrance from the north to the departure-level, traffic lanes. While there are organizational units within LAWA involved with different CTA operational aspects, LAWA does not have resources specifically dedicated to traffic engineering.
- ***Wayfinding continues as a challenge at LAX.*** Wayfinding continues as a passenger challenge – transferring between terminals, finding shuttle and taxi services, locating pedestrian information, etc., as discussed earlier under the need for informed guests.

Proposed Actions. LAWA should manage an integrated approach on accessing and exiting the CTA, parking, and terminals to minimize congestion.

LAWA will need to manage the disruptions that will inevitably occur in the CTA while building and commissioning the APM and potential future projects, including access to parking and smooth flow within the terminals.

- ***Planning for the construction impact of the APM needs to be careful and thorough.*** LAWA will need to ensure that parking and roadway capacity is not reduced more than is absolutely necessary, even though some capacity loss is inevitable.
- ***The ARCC is an important center for managing landside operations.*** The ARCC is correctly noted as a strength in Chapter I.1, but LAWA is only beginning to develop its full capabilities. The ARCC is an excellent platform for data-driven performance management and a key tool for the executive team. Therefore, the ARCC's capabilities should be expanded as quickly as possible. Except for the ARCC, there is no single organizational focus for CTA operations strategy.
- ***The complexity of CTA congestion warrants traffic engineering expertise.*** Given that the guest experience is going to deteriorate seriously in the coming years due to the LAMP and potentially Terminal 2/3 construction, LAWA should have a unit focusing on traffic engineering. Traffic engineering is a key organization at other airports facing traffic challenges associated with both construction and general congestion.

For example, the Port Authority of New York & New Jersey (PANY&NJ) has long had a traffic engineering unit with special skills in improving and maintaining traffic flows and capacity in the face of many challenges. The ARCC and CALM are steps in the right direction; however, strengthening LAWA's capability to do traffic engineering — especially good design for construction-related diversions — is critical in the coming years.

PROPOSED ACTION STEPS

1. LAWA's Chief Executive Officer (CEO) should establish a single point of responsibility for day-to-day landside operations (terminal, traffic, and parking).
2. LAWA should form a joint-services team that includes Operations, Maintenance, & Emergency Management Group (OMEMG); Law Enforcement & Homeland Security; Traffic, Airports Development Group (ADG), and Commercial Development Group (CDG) to:
   - 2.1. Plan and execute a coordinated landside operations strategy
   - 2.2. Review and update its regulations and operational rules for landside operations
   - 2.3. Build on the ARCC's capabilities as a powerful platform for data-driven performance management, outlined in this IEA Survey Report
   - 2.4. Begin evidence-based management of landside operations designed to:
     - 2.4.1. Ensure rapid response to issues that arise during the service day
     - 2.4.2. Anticipate congestion and wherever possible deploy resources before it occurs
     - 2.4.3. Propose policies and procedures to reduce CTA vehicle congestion in peak periods
     - 2.4.4. Work closely with airlines and other airport tenants to establish and maintain guest service excellence
3. LAWA should increase landside operations staffing levels by:
   - 3.1. Adding staffing to allow 24/7 coverage of terminal and landside operations
   - 3.2. Increasing terminal and landside operations supervisory staff
   - 3.3. Providing robust Traffic Officer and Airport Police staffing to carry out flexible manual traffic control during construction
4. LAWA should assign overall APM construction impact coordination on the landside to a single position.
   - 4.1. LAWA should provide this position with sufficient planning and construction coordination resources to ensure that he/she is able to anticipate and address CTA traffic and parking capacity reductions during construction.
   - 4.2. This landside management position would have the scope to respond to CALM plans and immediately react to identified shortcomings in execution.
5. LAWA should include in its contract provisions with APM planning, construction, and operations contractor(s) that they:
   - 5.1. Have significant incentives for maintaining CTA capacity and substantial penalties for reducing it
   - 5.2. Provide coordination staffing and performance requirements in APM construction contracts

6. LAWA should conduct periodic reviews of the construction process to learn from successes and failures, with the understanding that it may well be in order to change approaches if existing arrangements prove unworkable or ineffective.
7. LAWA should also establish or obtain traffic engineering capability:
   - 7.1. Traffic engineering should focus on:
     - 7.1.1.Developing traffic mitigation plans
     - 7.1.2.Evaluating diversions for shuttle services and taxis/limos/vans and other strategies or systems that might help contain and manage CTA roadway congestion
     - 7.1.3.Conducting needs analyses based on projected traffic levels and designing construction-related diversions (Note: Another possibility might be to include the needs analysis as part of LAMP in the contractors' specifications.)
   - 7.2. LAWA should engage traffic engineering expertise, based on a cost-benefit analysis of different options:
     - 7.2.1.*Option 1 -- LAWA staff.* Recruit and build its own traffic engineering unit
     - 7.2.2.*Option 2 – LADOT.* Retain the services of LADOT through an MOU that would reimburse the department for its expenses in compliance with FAA requirements for revenue use and BOAC action to review and approve such agreements
       - 7.2.2..1. Note: LADOT also has technical knowledge and experience in traffic design and control systems. LADOT has jurisdiction over the "upstream" systems that deliver traffic to LAX and some involvement in CTA traffic influx.
     - 7.2.3.*Option 3 – Private contractor.* Retain the traffic engineering services of a private contractor (LAWA should request LADOT to participate on the selection panel if this option is chosen.)
8. LAWA should train airport contract workers regarding Guest Experience initiatives, including wayfinding during construction.
9. LAWA should increase existing staffing and systems to ensure that the public is kept informed, preferably well in advance, of significant disruptions to CTA traffic arising from APM construction.
   - 9.1. LAWA might build on the proven "Carmageddon" model of saturation notices used during the widening of the 405 through Sepulveda pass).

Access and congestion are the heart of the guest experience and environmental problems. Moreover, LAMP implementation failure could be financially devastating. These challenges are widely understood within LAWA, and warrant LAWA getting City Hall's full support in going forward.

RECOMMENDATION I.4.6: LAWA SHOULD INCREASE ITS OPERATIONS TECHNOLOGY INVESTMENTS, GIVEN ANTICIPATED CONSTRUCTION-RELATED CHALLENGES.

Finding. Operations technology does not appear to be part of a comprehensive strategy or overall plan.

Operations technology initiatives have not been able to compete successfully for resources and do not appear to be part of a comprehensive strategy or overall plan at LAWA. As a result, a number of systems appear incomplete, partially implemented, obsolete, or in need of redesign, such as:

- Maximo's work planning and control system, which needs some additional work to fully implement and use it in the Facilities Maintenance & Utilities Group (FMUG) and Capital Programming, Planning, & Engineering Group (CPPEG)
- The "Sit Stat Board" and communications system used by the ARCC
- Radios used by FMUG
- Badging Office technology, which is currently operational, though not optimal (Note: Its transaction volume has increased during the past 10 years because of the major construction work.)
  - The core services of employee information verification and fingerprint checks are described as "stable," but Badging Office throughput has dropped below pre-upgrade levels. Part of this difficulty has been the impact of technology upgrades on the part of a Federal contractor tasked with the transmittal of fingerprint data to the FBI and NCIC databases.
  - The Badging Office's capacity is about 275 applicants per day; the Office would like to increase this capacity to 400 applicants by reducing the processing time needed. In response, the Law Enforcement & Homeland Security Division and Information Management Technology Group (IMTG) are analyzing their staffing, facilities, scheduling systems, and technology upgrade needs, such as office automation, to allow:
    - More electronic exchange of data between Badging Office functions
    - Potential authorized application signers within tenant companies and their contractors to enter substantial amounts of employee information before an applicant is interviewed, photographed, and fingerprinted

IMTG reports that some LAWA division staff are slow adopters of new technology; the divisions do not always develop performance objectives and invest the resources necessary to make the new technology fully effective. LAWA has not adopted industry best practices associated with change management in the adoption of new technology. These practices include IT collaborating during design and implementation with the "client" divisions to integrate ideas offered by the staff members that will smooth transition, and address concerns and questions well before the launch of a new system.

Proposed Actions. LAWA should take a more strategic approach for establishing and implementing operations technology.

LAWA requires increased investments in operations technology that will enhance the guest experiences.

PROPOSED ACTION STEPS

To enhance operations technology:

1. LAWA executives should develop strategic priorities for operations that includes safety, capacity optimization, and improved guest experiences.
2. Involved divisions should develop an operations technology plan, in collaboration with IMTG, to support the Guest Experience strategy; the operations technology plan should:
   - 2.1. Incorporate current and planned initiatives
   - 2.2. Include responses to currently known issues and needs within the plan
   - 2.3. Give priority to proposals that will strengthen the ability of operations staff to safely support increasing passenger levels, improve guest experiences, and address concurrent construction-related challenges
3. LAWA and IMTG should continue to invest in making process improvements and technological upgrades to the Badging Office operations.
4. LAWA's divisions should use change management best practices to ensure smooth adoption of new technologies.

Maintained and Clean

RECOMMENDATION I.4.7: LAWA MAINTENANCE SHOULD CONTINUE ITS EFFORTS TO TACKLE PREVENTIVE AND UNSCHEDULED MAINTENANCE.

Finding: LAWA only began to track planned maintenance through automation in July 2015.

LAWA has not developed prevailing practices in large organizations for tracking performance measurements in maintenance and custodial services. At the time of the 2008 IEA Survey, LAWA's Maintenance & Operations staff members were using a manual system that required extensive time and labor and was prone to human error. In 2010, LAWA implemented Issue Track, which still required extensive manual implementation to obtain data.

LAWA has recently installed Maximo, which should help collect the needed data for better tracking and monitoring. For example, LAWA now knows the number of maintenance requests it gets, by terminal. At the time of this IEA Survey, however, LAWA:

- Did not track downtime of some equipment and Heating, Ventilation, and Air Conditioning (HVAC) systems
- Only started tracking other planned maintenance in July 2015

The best world-class efforts are negated if elevators and escalators are out of order, power outages occur, and restrooms are dirty.

- Did not plan to track custodial services, landscaping services, or the locksmith shop in the Maximo system, because FMUG reports an insufficient return to merit the effort that would be required[40]

Proposed Actions: LAWA should take full advantage of Maximo to ensure it collects and monitors performance for both preventive and unscheduled maintenance.

Work to implement these tracking features in Maximo is under way, and should be continued.

PROPOSED ACTION STEPS

1. LAWA should leverage Maximo to produce valuable information for tracking and reporting on:
   1.1. Work orders to determine which ones are complete and which ones remain open
   1.2. Open work orders that should be prioritized and expedited
   1.3. Compliance with preventive maintenance schedules, particularly for major systems
   1.4. Downtime hours for major systems
2. LAWA should track hours between cleaning cycles for bathrooms and the terminals.

Partner Collaboration

RECOMMENDATION I.4.8: LAWA WILL NEED TO DEVELOP COLLABORATIVE RELATIONSHIPS WITH MULTIPLE JURISDICTIONS TO MEASURE GUEST EXPERIENCES IN/OUT OF LAX.

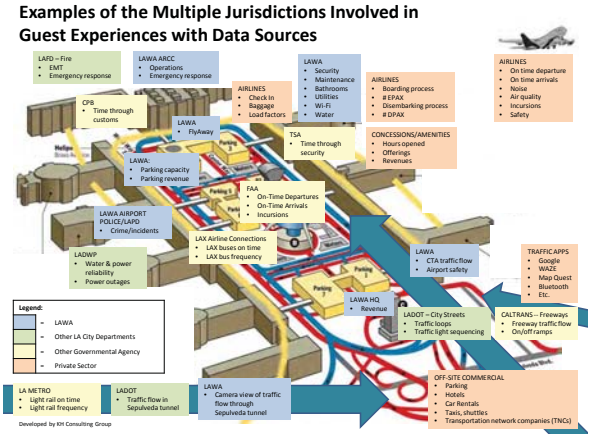
Finding. LAWA has only part of the data needed to evaluate the entire guest experience.

Some argue that the guest experiences begin from the moment individuals leave their homes, hotels, or work to get to LAX. Travel applications and CalTrans estimate travel time to LAX. LAWA's data points begin as individuals enter the CTA, but many other jurisdictions also process guests that are not directly under LAWA's control, such as TSA and the airlines.

The partners and members of the airport community are central to the Guest Experience initiative. The partners include many individuals, including airlines, concessionaires, terminal services, custodial and maintenance workers, etc.

40 FMUG has completed both a Custodial Staffing Survey and a Landscaping Staffing Survey this year; the Custodial Staffing Survey contained detailed custodial maintenance schedules and staffing plans, backed by employee and supervisory reports.

Examples of the Multiple Jurisdictions Involved in Guest Experiences with Data Sources



As shown in the LAX diagram, multiple jurisdictions are involved in guest experiences, ranging from:

- LAWA (in blue)
- Other City of Los Angeles departments, including LADOT, LAPD, and Los Angeles Fire Department (LAFD) (in green)
- Other governmental agencies, such as FAA, TSA, and LA Metro (in yellow)
- The private sector, including airlines, concessionaires, off-site parking operations, or traffic app companies (in peach)

Proposed Actions. LAWA should develop collaborative relationships with other jurisdictions to develop metrics, share data, and enhance the guest experience.

To develop metrics regarding LAX Guest Experiences from when passengers and other users leave home/work to when they are airborne will require extensive collaboration and data-sharing across many jurisdictions.

PROPOSED ACTION STEPS

1. LAWA Guest Experience management should meet with the private corporate partners (e. g., airlines, concessionaires, shuttle services, etc.) regarding the Guest Experience initiative and values; explore what measurements they can share.
   1.1. LAWA should build into future contracts between LAWA and private companies a data-sharing component linked to the Guest Experience initiative.
   1.2. LAWA should include partner organizations (e. g., airlines, concessionaires, government agencies) in the Guest Experience Working Group.
2. LAWA Guest Experience management should meet with TSA, Customs and Border Patrol (CBP), LADOT, and LAPD regarding the Guest Experience initiative and values.
   2.1. During these meetings, LAWA should discuss what measurements they can share with the public.
      2.1.1.These measurements should then be included in the Guest Experience BSC, discussed further in Chapter II.3.
   2.2. LAWA should explore if TSA and CBP might adopt some of the customer queuing concepts used at theme parks and elsewhere, such as place markers in the queue line to indicate estimated wait time from that point on.
      2.2.1.CBP and TSA could mark 10, 15, and 20 minute points, based on observed experiences.
      2.2.2.CBP and TSA might pilot the program with several terminals and, based on lessons learned, expand it to the other terminals, including Terminal 1 once it is remodeled.
3. LAWA should develop the Guest Experience measurements based on industry best practices and criteria used by outside rating agencies.
4. LAWA should evaluate emerging applications that estimate travel time to LAX as possible sources of data. Just as the ARCC has advance information on incoming aircraft and passengers, LAWA might attempt to find similar data on departing passengers.

RECOMMENDATION I.4.9: LAWA WILL NEED TO BE NIMBLE AND MOVE EXPEDITIOUSLY TO LEVERAGE TECHNOLOGY AND DEVELOP APPLICATIONS.

Finding. Guests demand real-time information so passengers can be on time for flights and "meeters and greeters" can meet passengers.

LAWA is currently pursuing partners to develop applications for LAX that will provide such real-time data:

- LAWA is in discussions with WAZE to provide its application as the real-time traffic map on the www. LAXisHappening. com website. This site would include real-time drive time in the CTA and future parking structure availability.
- Xerox Corporation has recently released Go LA, an app that shares different travel options in the LA region, including travel times. There may be possible areas of collaboration for LAWA here.

  - Go LA is the first app to provide mobile access for all available public and private transportation services, presenting "...the time, cost, carbon footprint, and health benefits of walking, biking, driving, parking and riding public transit."[41]
  - Go LA also includes emerging transportation options, such as Lyft, Uber, Flitways, and Zipcar.
- LAWA is currently reviewing a mobile platform/app for LAX that was developed by JCDecaux; the app is expected to be released in 2016.
- LAWA is working with the CBP to develop a free Mobile Passport Control (MPC) app. The primary beneficiaries would be limited to the estimated 9,000 U. S. citizens and Canadian passengers arriving each day. With the app, CBP can process passengers more rapidly, relieve CBP wait times (from 33 minutes to 18 minutes), and reduce CBP congestion.[42]

MPC APP Collaboration Required

LAX will need strong Wi-Fi and cellular access to benefit from these opportunities. As already mentioned, LAX's Wi-Fi services lag behind other airports in terms of speed.

Proposed Actions. LAWA should expedite its efforts to develop applications, partner with app providers, and leverage technology and data to improve guest experiences and monitor performance and operations.

Our technological world is changing rapidly. The ability of guests to use new technology, especially mobile applications, is evolving from menu driven to artificial intelligence technology. Users will rely less on menus and more on oral directions, almost like conversation, with their technology. LAWA should continually strive to stay abreast of the technological changes.

41 http://www.routefifty.com/2016/01/smart-city-trip-planning/125448/, January 27, 2016.

42 The LAWA IT Governance Committee has recently recommended proceeding with implementation of the app and is seeking funding for the initiative ($80,000 for software, equipment and installation services). This collaboration involves the cooperation of LAWA, CBP, airlines, and passengers.

PROPOSED ACTION STEPS

1. LAWA should expedite its current efforts to develop applications by establishing agreements with the major companies that compile and produce travel applications (e. g., WAZE, Google, Go LA, MapQuest, etc.) to extend estimated time of arrival to include destinations points within LAX, encompassing:
   - 1.1. CTA roadway congestion with alternative best routing (e. g., lower and upper levels and suggested approaches, such as Century Boulevard or Sepulveda North)
   - 1.2. Construction-related impediments and other irregular operational situations
   - 1.3. Time to specific parking lots
   - 1.4. Parking space availability, by parking lot, once the new parking lot operations contract is awarded
   - 1.5. Specific terminals, including TSA processing times and time to specific gates
2. LAWA should continue to invite current and emerging developers to use detailed LAX data in their applications, and encourage the developers to offer products that assist LAX guests in wayfinding, providing alternate language maps, and producing other amenities.
3. LAWA should discuss with the Los Angeles City Department of Public Works (LADPW) the terms of an agreement it recently entered into with WAZE to see if LAWA can either partner with LADPW or gain insights in developing its own agreements with such a private service provider.
4. LAWA will need to address the issues surrounding its Wi-Fi speed at LAX to be world-class and competitive.

I.5: CAPITAL IMPROVEMENT PROCESSES

In December 2015, the Board of Airport Commissioners (BOAC) approved the largest Public-Private Partnership (PPP) procurement in the history of California, involving the $5-billion Landside Access Modernization Program (LAMP) at LAX.[43] Central to the Modernization Program is a 2.2-mile Automated People Mover (APM) with 6 stops, connecting the Central Terminal Area (CTA) with stops at new LAX parking facilities, a new Consolidated Rent-a-Car Center (CONRAC), and a new LA Metro Crenshaw/LAX station, already mentioned in prior chapters. Chapter I.4 has a photo of the proposed APM.

Efficient and effective capital planning, budgeting, and project management processes are critical in delivering the next round of projects. LAWA has begun the environmental review and clearance process for LAMP and is collaborating with key agency and community stakeholders. LAWA will be using a Design-Build-Finance-Operate-Maintain (DBFOM) approach for the APM and CONRAC.

LAWA's embarking on the largest public-private partnership procurement in the history of California.

According to the U. S. Department of Transportation (LADOT), Federal Highway Administration (FHA): *"The design-build-operate-maintain (DBOM) model is an integrated partnership that combines the design and construction responsibilities of design-build procurements with operations and maintenance. These project components are procured from the private sector in a single contract with financing secured by the public sector. This project delivery approach is also known by a number of different names, including "turnkey" procurement and build-operate-transfer (BOT)."*[44]

Chapter II.5 delves more deeply into the Balanced Scorecards (BSCs) developed for administrative support areas of the capital improvement process (e. g., Finance, Procurement, and Human Resources) during this Industrial, Economic, & Administrative (IEA) Survey.

43 "Major P3 DBFOM Procurement Planned for LAX Modernization," by Seth Merewitz, Public CEO, http://www.publiceo.com/2015/12/major-p3-dbfom-procurement-planned-for-lax-modernization/, December 1, 2015

44 U.S. Department of Transportation, Federal Highway Administration definition: https://www.fhwa.dot.gov/ipd/p3/defined/design_build_operate.aspx

FINDINGS AND RECOMMENDATIONS

Capital Planning, Budgeting, and Technology

RECOMMENDATION I.5.1: LAWA SHOULD ENHANCE ITS SAP SYSTEM TO BETTER SUPPORT CAPITAL PROJECTS.

Finding. SAP was designed to manage financial operations, which is significantly different from managing the financial aspect of capital projects.

SAP is LAWA's enterprise financial system and was installed more than 15 years ago, before the start of the major rebuilding and renovation efforts at LAX. Recently, LAWA has updated SAP's system software with limited application functionality improvements. Since acquiring SAP, LAWA has implemented new software systems, including Prolog (LAWA's construction management application) and Maximo (LAWA's maintenance control system).

LAWA is now engaged in the largest public works improvement program in the City. Managing the financial elements of capital projects is significantly different than managing the financial aspects of operations. Capital projects require multi-year budgets and multi-year contracts. As a result, Finance and other units involved with capital projects maintain many "shadow systems," as discussed in Chapter I.2. As an example, the capital budget shows data for two Fiscal Years (FYs), but many projects take longer. Budgets for the project duration beyond the two-year window are kept on Excel spreadsheets to reflect total project costs, since they cannot be kept in SAP.

Proposed Actions. LAWA should take advantage of SAP functionality more fully for financially managing capital projects.

LAWA should build on its investments in SAP, Prolog, and Maximo for more integrated solutions.

PROPOSED ACTION STEPS

1. LAWA's Chief Financial Officer (CFO), City Controller, and Information Management & Technology Group (IMTG) should work together in a business process review of SAP and Prolog to take advantage of SAP functionality more fully. This collaborative effort will entail:
   - 1.1. Examining SAP and Prolog functionality in light of current LAWA business needs, especially capital projects for better integration
   - 1.2. Adapting or eliminating manual processes that can be handled by SAP or Prolog
   - 1.3. Exploring how Maximo capabilities and functions might also be tied in better to SAP
2. LAWA should explore if it can use SAP as a financial data warehouse to:
   - 2.1. Ensure that all transactions are consistently subjected to LAWA internal controls
   - 2.2. Provide a central repository for all units within LAWA to have access to the same data (i. e., "one version of the truth")
   - 2.3. Facilitate consistency of reporting

A caveat is that LAWA does not want to become so tied to SAP that it cannot explore other financial system options in future years. Therefore, it should be tactical in deciding what modules are best to integrate with SAP and Prolog.

RECOMMENDATION I.5.2: LAWA SHOULD ESTABLISH AT LEAST 5-YEAR AND 10-YEAR CAPITAL IMPROVEMENT PLANS (CIP).

Finding. LAWA's capital planning process is insufficiently robust for the organization's ongoing needs.

The current Capital Improvement Plan (CIP) is updated every two years; LAWA has a "capital call" process to elicit new projects from its organizations. Senior executive and financial managers review the recommended capital projects, and determine which should be included. The guidelines for determining which proposed projects go forward are not clear to many of the divisions or other executives.

LAWA lacks a 5-year Capital Improvement Plan (CIP) for projects beyond the Modernization Program, including preventive maintenance.

Most of the focus of the current capital planning process is on current or upcoming project planning; however, divisions are limited in their ability to access planning information details. Long-term project planning is even more limited. LAWA lacks a 15-year, 10-year or even a 5-year capital plan for future project planning purposes. There are also limited metrics to determine:

- Whether the life-cycle costs of proposed projects are justified by their anticipated benefits
- The comparative values of proposed projects

Proposed Actions. LAWA should adopt a 5- to 10-year capital plan that reflects the life cycle of major capital projects and capital maintenance needs of existing facilities.

LAWA would benefit from at least a 5- to 10-year CIP that reflects multi-year capital projects and maintenance of existing and planned facilities.

PROPOSED ACTION STEPS

1. LAWA's current needs and strategic vision should shape the development of the CIP.
   - 1.1. BOAC's policy directives should be included in the capital plan.
2. LAWA should continue an annual- or bi-annual call for projects; the call for projects should include criteria for capital project proposals, capital project priorities, and capital project decisions.
3. LAWA should include both capital maintenance and modernization improvements in the CIP.
   - 3.1. Note: Major maintenance items are typically highly predictable and required on a scheduled basis.
4. The CIP should include input from both internal and external stakeholders.
5. LAWA should provide opportunities for divisions to discuss and defend their projects, combined with feedback regarding the final decisions.

6. LAWA should establish an inter-divisional review process so that:
   6.1. Asset management tools are used in capital planning
   6.2. Multiple perspectives are considered before deciding what should be included or excluded in the plan
   6.3. Capital maintenance, modernization improvements, and new capacity investment are balanced in ways that match LAWA's strategic vision
7. LAWA should project a longer "window" for capital expenditures to permit fewer peaks and valleys in capital maintenance and construction.
8. The CIP should optimize LAWA's financial resources (grants/pay-go/borrowing).
9. LAWA should communicate the contents of the longer-term CIP, emphasizing that the CIP is a plan and not a final commitment until planned projects are funded and formally approved.

A more robust process would include:

- A longer-term perspective for capital expenditures
- Improved communications regarding criteria for capital project proposals, capital project priorities, and capital project decisions
- Policy guidance from BOAC's directives
- Input from LAWA stakeholders
- Greater transparency and clarity regarding what projects are in the "pipeline" so all involved can plan accordingly

Capital Project Management

The City of Los Angeles, Office the Controller, commissioned a study[45] that sampled 30 capital projects, totaling $4.9 billion in construction contracts between July 2011 and June 2014, which were being built by different City departments.[46]

In the quest to begin and complete the Tom Bradley International Terminal (TBIT) construction project expeditiously, the specifications were not fully defined at the onset. As a result, contractors ran into unforeseen problems, complications, and additions (e. g., the four-level structure connecting Terminal 4 and TBIT), resulting in revisions to the initial TBIT plans.

LAWA paid a premium to modernize TBIT expeditiously and is now working to reduce future cost overruns in its second Modernization Project.

LAWA delivered the TBIT project under two Construction Manager at Risk (CMAR) contracts, which had a combined original contract value of approximately $1.4 billion. When the first contract was awarded, LAWA had not completed the Environmental Impact Report (EIR) for the project, so BOAC could not

45 City of Los Angeles, Office of the Controller, "Audit of the City's Change Order Management Process, http://controller.lacity.org/stellent/groups/electedofficials/@ctr_contributor/documents/contributor_web_content/lacityp_031751.pdf, September 17, 2015.

46 Note: LAWA reviews a contractor's request and must either approve or reject it.

award the construction services portion of the contract. Instead, BOAC awarded the contract for the full amount, but only appropriated funds for "Preconstruction Services" with a clear statement that the construction services tasks and funding would be awarded upon adoption of a final EIR. When the EIR was completed, the construction services portion was awarded.

TBIT cost LAWA $2 billion, $600 million more than the original estimate of $1.4 billion in 2009 – a 43.9% cost overrun. The City Controller's audit noted that cost overruns typically run 5% to 10% above the original contracted amount. When TBIT was removed from the LAWA sample, LAWA averaged 7.2% and LA City departments averaged about 4.3% for cost overruns.)

In response, LAWA has begun to implement the recommendations in the City Controller's audit, particularly in monitoring and improving the change order process. In moving forward, LAWA management understands that it must be ready for the next round of construction projects because there will be less tolerance for cost overruns. The next recommendations explore ways to strengthen project management and contain costs.

RECOMMENDATION I.5.3: LAWA CAN IMPROVE CAPITAL PROGRAM IMPLEMENTATION THROUGH STRONGER MANAGEMENT READINESS AND COORDINATED PROCESSES.

Finding. LAWA has the Second Modernization Project in the pipeline, but lacks management readiness and streamlined processes to deliver them efficiently and cost-effectively.

Now that LAWA is embarking on a $5-billion Second Modernization Program, it will need to ensure its capital program is efficient and can deliver projects in a timely and cost-effective manner.

The Airports Development Group (ADG) is currently documenting 80 to 90 identified processes, as directed by the City Controller. ADG has followed standard project management processes within its group for delivering capital projects at LAWA. These processes were captured in various flow charts with summary directions. ADG is currently memorializing these processing as it finalizes its Program Delivery Manual.

Processes that involve two or more divisions frequently experience difficulties in coordination. The lack of integration between planning and development has been an ongoing issue. LAWA is not including the upstream processes (e. g., finance, capital programming planning, engineering, or environmental processes) in this process documentation initiative for capital projects. This situation jeopardizes effective and efficient execution and coordination.

There are many handoffs from one division to another, referred to by KH as inter-divisional project management. These handoffs can be service providers, such as IMTG, or divisions linked in a process, such as the transition of capital project development from CPPEG to ADG. Interviewees cited deficiencies in communications between CPPEG and ADG, resulting in less efficient "hand-offs" between organizational units. There are also processes that enable users to request services or products from providers. As a result, KH interviews uncovered instances where the receiving division (user) is dissatisfied with products or services from the originating division (provider).

As already discussed in Recommendation I.5.1, opportunities exist to leverage technology further. Although LAWA appears to be aware of and interested in using new technology, up to now it may have missed opportunities to improve its effectiveness and efficiency by rigorously reexamining the rules and processes that govern its activities.

Management and staff lack readiness for the next cycle of capital projects. Newly documented processes are not fully implemented; training is still needed; and modifications will be necessary. While the next wave of projects is in the process of review and approval, there is an opportunity to plan how new programs and projects will be managed.

Proposed Actions. LAWA should strengthen its management readiness for building LAMP, APM, CONRAC, and other infrastructures.

Capital program management would be enhanced with process improvements and better management and staff readiness in these processes. The Project Management Institute international established the Organizational Project Management Maturity Model (OPM3) standards. OPM3 pertains to all stages of project status, including early advance, impending, projects in construction, and close-out processes. OPM3 is a best practice standard for CIP planning processes, involving:

- A robust long-term planning process that takes into consideration future changes
- Review of processes for long-term planning, including whether these processes are written and followed
- Four levels of evaluation of project management (ANSI certified): Standardize, Measure, Control, and Improve (SMCI)
- A fair, efficient, and effective procurement process for construction-related services, including design, project management, construction, and removal
- Processes in compliance with regulations and standards (e. g., Project Management Institute (PMI) and Federal Aviation Administration (FAA) requirements)
- Processes in compliance with the City of Los Angeles and LAWA's policies, procedures, rules, and regulations
- Rigorous and analytical evaluation of project plans and budgets and timely delivery of projects within budget by documenting their cost, schedule, and quality performance to identify the size of any problems in planning, budgeting, and execution
- A "fixed" baseline for the life of the project to assess progress against targets

LAWA should establish a central function for process design and information technology implementation for cross-functional processes to close existing gaps. LAWA conducts and oversees processes that can be improved by continuous improvement strategies, operations research, and industrial engineering. Other government agencies have found the use of a Business Solutions Group that can quickly address divisions' IT and process needs with quick solutions as a useful addition to their IT solutions capabilities.

PROPOSED ACTION STEPS

To help close IT gaps in cross-functional processes:

1. LAWA should establish a Business Solutions Group with the business analysis capabilities to focus on the quality of process and information systems design. This group can facilitate:
   1.1. Processes that include hand-offs and sign-offs to ensure that the expectations of the provider and user are aligned and satisfied
   1.2. Increased collaboration and cooperation between divisions
   1.3. Improved interfaces that can reduce costs and delays resulting from the mismatched expectations

LAWA should improve management and staff readiness for the next wave of capital projects. LAWA should strengthen its capacity to implement LAMP.

PROPOSED ACTION STEPS

To improvement management and staff readiness:

1. LAWA executives should review the readiness of process participants to manage the programs and their projects.
2. LAWA executives should identify priorities for process improvements that will support or ease the implementation of LAMP.
3. LAWA executives should work with division management to develop implementation options to mitigate risk with a focus on ensuring LAWA can meet cost, quality, and schedule goals.
4. LAWA's ADG should include the roles and number of LAWA staff, roles and number of augmentation contractors, and contracting options (DBB, DB, CMAR, etc.) for LAMP programs and projects.
5. LAWA CPPEG and ADG should recommend a strategy for handling each program or project.
6. LAWA should provide BOAC with an economic justification for the recommended course.

RECOMMENDATION I.5.4: BETTER MANAGEMENT OF THE AUGMENTATION STAFF MAY LOWER CAPITAL PROGRAM AND PROJECT COSTS.

Finding. LAWA should better manage its "soft costs" to reduce capital program costs.

LAWA has large projects, dependent on outside contractors. For example, LAWA entered into a contract with Parsons for Construction Management services (Contract DA-4835, initiated 8/20/2013); Parsons had spent approximately $20 million of the contracted $87.5 million as of mid-June 2015.

LAWA has considerable internal and contractor capacity available and must manage these soft costs carefully to avoid potential overstaffing. Interviewees identified "soft costs" as an opportunity for capital program cost reduction.

The Construction Association of America provides standards for soft costs.[47] At LAWA, these soft costs include:

47 Design not included in CMAA data.

- Consultants – Management & Controls
- LAWA – Management & Controls
- Consultants – Construction Management

LAWA soft costs are higher than desired and higher than industry benchmark comparisons. This higher rate can be attributed to many factors, such as delivery of more than $4 million per day of capital construction at a size-constrained facility. LAWA acknowledges that such soft costs are higher and provides three key reasons:

- ***The complexity of building in an operating airport of the size and magnitude of LAX makes construction support and oversight more costly.*** In layman's terms, construction of a new home on an empty lot is typically cheaper than rebuilding an existing home with a family living in it. At LAX, LAWA rebuilt TBIT while ensuring that airport operations were not unacceptably disrupted by requiring more planning, coordination, and construction phasing. In response, as discussed in Chapter I.1 on "Strengths and Accomplishments," ADG formed the CALM group, utility shutdown coordination, site access control, and the construction communications programs (including construction signage and temporary wayfinding) to address airport operational priorities during construction.
- ***LAWA reports that the Finance Division capitalizes the costs related to delivery of capital projects***, which causes soft costs to be higher than at other entities.
- ***LAWA has relied on contractors to supplement its staffing.*** For some programs/projects, contractors assisted in the analysis and recommended the augmentation staffing levels. ADG staff reviewed and approved these staffing plans. LAWA plans to develop procedures for setting augmentation staffing levels, as part of its new Program Delivery Manual, already discussed.

LAWA is keenly aware of its need to continuously work on controlling soft costs.

Proposed Actions. LAWA should expeditiously develop tools to contain staff augmentation costs for the next generation of capital projects.

ADG would benefit from additional tools for more effectively estimating the additional staff and contractors required during the Second Modernization Program.

PROPOSED ACTION STEPS

1. ADG should focus on an early completion of the augmentation staff guidelines in the Program Delivery Manual, which could generate cost savings.
2. ADG should develop a process for calculating augmentation levels that includes such approaches as staffing tables, showing project parameters that drive costs and permit more informed decisions about the associated level of augmentation needed beyond LAWA staff.
   2.1. LAWA and ADG should distinguish between ongoing, routine projects that may warrant permanent LAWA staffing and unique projects that require specialized expertise or staffing levels not needed once implemented.
3. ADG should identify and incorporate any current efforts to improve efficiency and effectiveness.

3.1. ADG should test the procedure on existing and planned projects, and evaluate and modify the process as needed.
3.2. ADG should adjust LAWA and consultant staff levels based on process improvements.

Human Resources

RECOMMENDATION I.5.5: LAWA WILL NEED A FULL COMPLEMENT OF CAPABLE STAFF TO IMPLEMENT ITS AGGRESSIVE CAPITAL PROGRAM.

Finding. The ability of LAWA managers to implement the capital program is impaired with the long lead-time to promote, discipline, and hire authorized positions.

The process to fill positions is highly regulated, complex, and lengthy process, involving LAWA's Human Resources Services Division (HR), Civil Service rules, Civil Service Commission, and the City of Los Angeles Personnel Department. LAWA's HR does not currently track cycle times and analyze all the required steps to determine whether improvements are possible, as discussed in Chapter II.5. Delays in the hiring and promotion processes are frequently cited as issues by HR's internal clients.

Proposed Actions. LAWA Human Resources should improve its internal processes to meet the demands for staff for the next cycle of capital programs.

Hiring and retaining qualified employees and implementing appropriate discipline are all key steps to ensuring that staff members directly involved in the capital plan implementation, as well as all the support functions, can operate effectively.

PROPOSED ACTION STEPS

1. LAWA's HR should apply process improvement approaches to the hiring, promotion and discipline process to identify opportunities where LAWA can streamline or shorten the overall cycle time.
2. HR should consider using such tools as flow charting, simultaneous reviews, automation, advance planning, and benchmarking best practices used in other Los Angeles City departments and elsewhere.
3. HR should explore with the City's Personnel Department the possibility of expediting lists, recognizing that aviation industry knowledge is important for key positions and may have to be recruited from outside of the City of Los Angeles.
4. HR should consider establishing dual tracks – one that is expertise-focused and the other that is leadership-focused – for some positions.

Streamlining the process could:

- Reduce overtime associated with vacant positions
- Improve transitions when staff leave or retire
- Improve LAWA's ability to deliver services and projects on-time and on-budget

Procurement

The mission of the Procurement Division is to assist LAWA divisions with the economical, efficient, and effective procurement of Goods, Equipment and Non-professional Services (GENPS). Procurement also serves as a gatekeeper to ensure:

- Transparency in the public procurement of such goods and services
- Compliance with established procurement policies, procedures, and guidelines, as set forth in applicable sections of the Los Angeles City Charter, Los Angeles Administrative Code, BOAC Resolutions, and Mayoral Directives

Procurement is a major business function at LAWA, awarding $593 million in contracts last year alone. These awards include multi-year contracts that are spent down over 3 to 5 years.

RECOMMENDATION I.5.6: CHANGES IN PROCUREMENT CAN REINFORCE LAWA'S COMMITMENT TO A FAIR AND IMPARTIAL REQUESTS FOR PROPOSAL (RFP) PROCESS.

Finding. LAWA's divisions typically perform the processes related to RFPs.

Given the dollars involved in procurement, LAWA needs to be diligent in ensuring that it is following governmental best practices, monitoring performance, and soliciting solid vendor pools.

LAWA Procurement awarded $593 million last year.

Government best practices. Governmental best practices, at both the State and Federal levels, call for an independent organization to manage large procurements. In its RFP guidelines, the National Institute of Government Purchasing (NIGP) specifies: *"The procurement department representative serving as Chair of the Evaluation Committee is charged with the responsibility of assuring that the Committee's actions are in accordance with sound, good procurement policies and applicable guidelines."*[48]

LAWA's distributed model for procurement. LAWA has adopted a distributed model for procurements. The Procurement Services Division acquires GENPS for LAWA. For GENPS items common to all of LAWA, such as office supplies, copiers, etc., Procurement Services is responsible for developing specifications, scope, gaining approval to solicit, analyzing vendor responses, and arranging for the award. For products required by a specific division within LAWA (e. g., custodial cleaning supplies or runway lighting), the requesting division performs those steps.

Procurement Services offers Designated Contract Administrator (DCA) training to LAWA staff members to increase their understanding of the contract award process and improve their effectiveness in managing contracts. In 2015, 88 staff members attended these trainings sessions. In most LAWA groups, the Lead DCA is the Section Manager for Procurement and Contracting, who has several trained DCAs working with Project and Contract Managers in the respective divisions under the group. In 2015, LAWA had 45 Lead DCAs. In divisions with limited contracting, the Lead DCA is the only one trained.

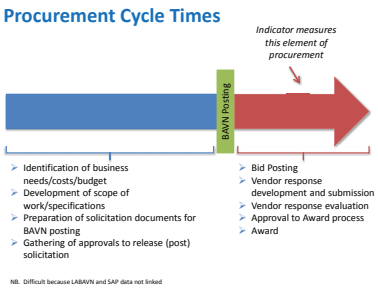
48 Khi V. Thai, Ph.D., *Developing and Managing Requests for Proposals in the Public Sector*, NIGP, 2004 p. 120.

Procurement maintains a roster of Lead DCAs, and keeps them informed of any changes in procurement policies and procedures, with the expectation that the Lead DCAs will, in turn, communicate the changes to all staff responsible for developing and managing contracts in their groups or divisions. Contract managers are responsible for ensuring that all provisions of the contract are met, including Small Business Enterprise (SBE) pledges (if any), insurance requirements, and performance against scope.

By far, the largest procurements undertaken by LAWA are Professional Services and Construction. In these acquisitions, which typically involve RFPs, Procurement Services largely acts as a support function. The requesting organization is responsible for drafting the scope of work, determining the evaluation criteria, and handling all other major elements of the solicitation, including specifying membership and running the evaluation process. Procurement ensures that all administrative requirements and Business Enterprise programs (e. g., SBE, SLBE, LBE, DBE, and ACDBE inclusion and applicable Federal guidelines) are followed.

Procurement does not participate in RFP evaluation panels, although it does verify the proposers' administrative compliance and that rating sheets were filled out after the panels are completed.

Procurement cycle times. There is inconsistency in documenting when the complete procurement cycle starts due to this approach. In addition, because there is no common identifier between the SAP system and the City's BAVN system, tracking a purchase from requisition in SAP through BAVN bidding through contract award through expenditure against that award is a difficult, time-consuming, and manual process.



Procurement performance measurements. Tracking procurement performance measurements is complex because:

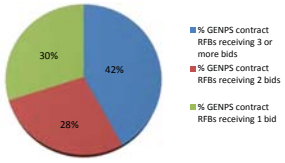
- Much of the procurement work effort at LAWA is decentralized.
- When the Procurement Services Division creates an Outline Agreement (OA) or DA Agreement (BOAC awarded) authority in SAP, the Division attaches the actual Bid Response and other supporting Request for Bid (RFB) information to the authority into SAP.

- This process is not normally the case for RFPs since most divisions do not provide the actual proposal when requesting the SAP authority.
- It is not currently feasible to link the award information on LAWA's SAP system with the bid information on the City's BAVN system because the two systems lack common identifiers, as already mentioned.

LAWA indicated that it could not compile cycle times, by organizational unit, given their current databases and information systems. Therefore, it is not easy to compare divisional differences. LAWA speculated that approximately 90% of GENPS RFBs are for two functional Groups: Operations, Maintenance, & Emergency Group (OMEG) and CPPEG. These Groups tend to require similar material groups and share some contracts.

Optimal vendor pools. Procurement has challenges in knowing whether LAWA is getting the optimal pool of potential vendors and contractors to respond to RFBs, as is further discussed in Chapter II.5. In 2014-2015, 28% of the solicitations received only 2 bids; 30% of the solicitations had only 1 bid. In some situations, LAWA is limited in its ability to ensure competition because the FAA only approves one vendor to provide specific products (e. g., runway lights). Those situations are exceptions; most solicitations are designed to encourage participation by multiple vendors and do not have such limits.

GENPS RFBs: Number of Bid Responses



58% of LAWA's solicitations only received 1 or 2 bids, representing 60% of the total of the awarded dollar value in 2014-2015.

LAWA has identified a number of potential barriers:

- Potential bidders may not submit bids due to:
  - Concern about City required contract terms
  - Difficulty in addressing insurance and bonding requirements
  - Concerns about lack of prompt payments at LAWA
  - Lack of understanding about how to do business with LAWA and respond to bids
- Potential bidders may not be registered on BAVN and, thus, do not know about the RFPs and RFBs.
- Specifications are too narrowly drawn for potential bidders to compete.

In December 2015, LAWA launched a LAMP Business Opportunities campaign[49] to encourage participation and provide information. LAWA hosted an Industry Forum and Small Business networking session on February 4, 2016, to share information about the program and give industry representatives the opportunity to provide feedback prior to release of the Requests for Qualifications (RFQs) or RFPs. Although Procurement Services is a small portion of the agenda, it is an example of LAX's outreach efforts regarding LAMP to the public and potential contractors.

Proposed Actions. LAWA should engage Procurement more actively in larger RFPs to ensure greater consistency and transparency in the process.

The challenge for a proprietary department, such as LAWA, is the need to abide by governmental regulations that may be time-consuming and not imposed on private sector enterprises, while being nimble enough to respond to market changes and business opportunities. Time is money and prolonged vendor selection and contract negotiations can result in lost revenues.

For example, LAWA launched an advertising programs at LAX in 2008. In July 2013, LAWA selected JCDecaux North America. The advertising contract is worth more than $180 million through advertising, sponsorships, and other media opportunities at LAX. BOAC approved the JCDecaux contract in December 2013. The agreement is to run until December 31, 2020, with options to extend it for three future years. The opportunity cost for each month delayed was projected to be $1.9 million.

"The internal control principle of separation of duties… translates to a requirement that a user organization not be responsible for the procurement of its needed resources. It is preferable to establish an independent procurement organization, reporting to a high level within the agency that is not a direct user or customer of the procurement office

Source: Federal Transportation Administration (FTA): "Organization of a Procurement Office"

Therefore, procurement processes must be streamlined, while simultaneously ensuring the public that the bidding process is fair, competitive, and optimal in garnering the best services for the dollars.

PROPOSED ACTION STEPS

1. LAWA should assign a more active role to Procurement, especially for larger RFPs or for divisions with less experience in the procurement process, to:
   - 1.1. Abide by the principles set forth by the Federal Transportation Administration (FTA), regarding the organization of procurement functions
   - 1.2. Ensure that the RFPs permit fair competition (e. g., the scope of work can elicit a responsive proposal; may not create undue barriers that would limit the number of potential proposers to three or fewer proposers; etc.)
   - 1.3. Confirm evaluation criteria for award, including fair weighting of the most important elements

49 http://business.connectinglax.com

   - 1.4. Review responses to proposers' questions to make sure all questions are answered completely and disseminated to all potential responders
     - 1.4.1. Coordinate membership on the evaluation panels to ensure the fact and perception of impartiality
     - 1.4.2. Convene and chair evaluation panel meetings; serve as a non-voting member of the evaluation panel to:
       - 1.4.2.1. Verify proposers interviewed are treated fairly and equally
       - 1.4.2.2. Manage the review discussion according to standard guidelines
       - 1.4.2.3. Gather scores of reviewers
       - 1.4.2.4. Document the outcome of the scoring
   - 1.5. Formally validate the integrity of the proposal process to the approving authority
2. Procurement should continue to identify areas for improving/streamlining the procurement process, including:
   - 2.1. Outreach to small businesses through workshops, business inclusion events, and industry conferences
   - 2.2. Procurement training to DCAs and contract/project managers
   - 2.3. Development and monitoring of performance measurements, as discussed in Chapter II.5
3. As part of its reorganization, LAWA has the opportunity to:
   - 3.1. Redefine the procurement function to embrace supply chain approaches
   - 3.2. Elevate the function so that it moves from a compliance review and service orientation to a partner in ensuring LAWA procures all the goods and services it needs in a timely and cost-effective manner.

Proposed Actions. Procurement Services should evaluate the underlying causes for single and two-bid responses to RFBs, and take appropriate steps to increase the numbers of bidders.

City goals, reinforced by the BOAC, call for a minimum of 3 bidders for each solicitation. In almost 60% of the cases, LAWA RFBs do not meet those goals. Because of concerns that the FAA restrictions might make it more challenging for airports to obtain 3 or more bids, KH evaluated limited data from the Port Authority of New York and New Jersey (PANYNJ), which manages JFK, LGA, EWR, and Teterboro, a general aviation airport. KH's data analysis revealed that the number of administrative and airport-related bids received for procurements of goods and services differed somewhat from those of LAWA. Of the 18 bids reviewed, 17% received only 1 bid, 28% received 2 bids, and 55% received 3 or more bids.

PROPOSED ACTION STEPS

1. The LAWA Chief Executive Officer (CEO) should arrange to have an audit or forensic review of procurement activities to:
   - 1.1. Understand the causes for and prevalence of divisions relying on only 1 or 2 vendors
   - 1.2. Assess the degree to which FAA or other requirements limit competition for selected aviation-related items

   - 1.3. Benchmark LAWA's procurement metrics with other City departments and other large international U. S. airports, such as ATL, O'Hare, SFO, and PANYNJ
2. LAWA's Procurement Services Division should:
   - 2.1. Address the issues identified in the audit or forensic review
   - 2.2. Continue to identify piggyback opportunities to take advantage of economies of scale, especially when a low bidder turnout is eminent
   - 2.3. Undertake programs to address those causes (e. g., encouraging the FAA to approve multiple local vendors for aviation-related products subject to FAA approval)
   - 2.4. Coordinate with other procurement professionals to conduct surveys of potential vendors to determine why they are not competing for City work
3. Procurement Services should partner with other procurement professionals in the City to research the root causes of the dearth of bidders and propose solutions to the issue.

Parking Revenues

RECOMMENDATION I.5.7: LAWA SHOULD CONDUCT A FISCAL AND OPERATIONAL AUDIT OF PARKING OPERATIONS.

While LAWA's recent studies have covered how the new APM construction will affect certain existing parking structures or facilities, they have not reviewed or audited in any detail the effectiveness and needs of the overall parking operations that service LAX. These operations include the parking garages on the LAX premises and the lots for the FlyAway bus services.[50] There are many other privately-owned parking lots near LAX.

Parking is a major business enterprise. LAX generated $85.6 million in parking revenue in 2014.

Parking revenues are significant at LAWA. In 2014, LAX generated $85.6 million and VNY $2.0 million in revenue, reflecting steady increases year-to-year since 2011, as show in Table I.5a.

Table I.5a: LAWA Parking Revenues (2011 through 2014)

Parking Revenues	2011	2012	2013	2014
$ – LAX	$71,307,912	$74,854,720	$78,870,767	$85,630,257
% change	*3%*	*5%*	*5%*	*8%*
$ - VNY	$1,788,661	$1,888,983	$1,966,100	$2,040,982
% change	*4%*	*5%*	*4%*	*4%*

50 Note: FlyAway is not primarily a Park 'n Ride system, except at VNY.

Finding. LAWA parking revenues are significant, but parking operations lack basic measurements for managing their operations.

LAWA's parking revenues are not properly audited. At LAX, industry-standard methods for auditing parking revenues are not followed. Parking tickets issued are not matched against cash collected, ticket inventory, and loop detector counts. Parking auditors are located adjacent to parking administrators, potentially reducing confidence in their independence. Finally, Internal Audit does not routinely audit parking operations. Although LAWA is currently issuing an RFP to update and automate parking payments to allow for pre-payment, these automated payment systems will not replace the need for auditing parking revenues.

LAWA cannot measure and monitor parking lot operations and occupancy rates. Because of the lack of automated systems for monitoring entries and exits to the parking lots, LAWA cannot on a real-time basis determine when parking lots reach capacity, or measure exit lane wait times. These shortcomings make it hard to assess the quality of parking activities, and they detract from guest experiences because of the inability to alert drivers to available parking spots in LAX lots. This situation is of significant concern because the availability of parking will become a bigger issue during APM construction.

Proposed Actions. LAWA should perform a fiscal and operations audit of its parking operations.

Parking revenue audits should be included in the Internal Audit Plan, consistent with the risk appropriate to an $85-million operation.

Apart from the benefits of a financial audit, LAWA may also improve its financial performance by improving its parking operational efficiency. This review, however, should wait until the new parking operations contract has been put in place and new technology has been installed.

PROPOSED ACTION STEPS

1. As part of the Guest Experience initiative, LAWA should expedite its RFP plans to improve the overall parking experience at LAX, including wayfinding, ease of access, safety, and parking innovations (e. g., parking control equipment), signage indicating number of empty spaces by floor, or red-green lights to identify available spaces.
2. LAWA should re-establish a landside transportation management position to focus on overall CTA ground operations, including flow into/out of parking, as also proposed in Recommendation I.4.4.
   - 2.1. This transportation management position should perform ongoing analysis of parking operations, particularly during APM construction, including:
     - 2.1.1. Parking operations
       - 2.1.1.1. Ease of access and saturation frequency
       - 2.1.1.2. Hours of operations per parking garage
       - 2.1.1.3. Parking capacity and turnover rate
       - 2.1.1.4. Efficient use of parking spaces
       - 2.1.1.5. Efficient and effective use of energy, such as lights, fans, etc.
       - 2.1.1.6. Operating elevators in parking structures
       - 2.1.1.7. Number of staff and staff hours
     - 2.1.2. Parking financials
       - 2.1.2.1. Parking rate structure
       - 2.1.2.2. Revenue and net revenue per parking garage per month and per year
       - 2.1.2.3. Internal parking controls and reporting systems
       - 2.1.2.4. Routine audits to avoid cash leaks and incidents
       - 2.1.2.5. Claims and issues
     - 2.1.3. Effective results through internal training on new procedures
3. Through LAWA's Internal Audit, LAWA should:
   - 3.1. Schedule regular audits of parking in accordance with the Audit Plan risk analysis
   - 3.2. Regularly perform honor-checking operational and financial audits on an "as-needed" basis without notice
   - 3.3. Review its current processes for performing and preparing a Revenue Report Audit, using best practices, such as tallying parking tickets to cash collections and vehicular counts
4. After the new parking technology contract is awarded and implemented, LAWA should have a fiscal and operations audit performed to identify further opportunities for improving parking operations, processes, revenue collection reporting and controls, management efficiencies and effectiveness, and overall guest experiences.

A fiscal audit and an operation audit are inter-related. LAWA has opportunities for improving its financial performance by improving its parking operations. By improving its parking operations, parking's financial performance will increase. To not do both would be remiss once the new parking contract is in place.

The Joint Administrators requested some cost estimates for conducting such parking audits. LAWA will probably need an external consultant with parking expertise to supplement its Internal Audit staff. The audits will take approximately six months to complete, including the time taken to hire a firm. LAWA can realize some cost savings by combining the inter-related audits; the estimated audit cost are between $100,000 and $150,000 to perform. This kind of an investment should have a return-on-investment (ROI) within the first 6 to 12 months of LAWA implementing the recommendations. (Note: A 10% improvement at LAX is $850,000.)

LAWA can realize a faster ROI by having the external consultant develop new parking reports and assist with oversight of the implementation of the new procedures as they are developed. This implementation assistance would require an additional 3 to 6 months, depending on the changes to be implemented. Such changes would:

- Improve financial controls and audits
- Improve operational controls and audits
- Increase parking revenues
- Improve coordination and controls among Commercial Development Group (CDG), Internal Audit, operations, accounting, and parking

I.6: PMD AND ONT AIRPORTS

INTRODUCTION

Los Angeles World Airports (LAWA) at one time managed the Palmdale Regional Airport (PMD), located in the Antelope Valley at U. S. Air Force Plant 42, approximately 60 miles from downtown Los Angeles. At the end of 2013, responsibility for the facility was transferred to the City of Palmdale's Palmdale Airport Authority under an MOU with LAWA. PMD's future may change because of a potential connection with the Las Vegas high-speed rail project and the prospect of an Antelope Valley stop for the California High Speed Rail. LAWA owns approximately 17,750 acres near PMD, land that is dedicated to airport purposes. Given these circumstances, the Joint Administrators requested that KH not focus on PMD. Interest in this land may be renewed as development of supporting transportation infrastructure goes forward.

Ontario International Airport (ONT) is classified as a regional airport that serves primarily domestic cities and some international destinations. Located in the Inland Empire, 35 miles east of downtown Los Angeles, ONT serves primarily the people residing in San Bernardino and Riverside Counties and portions of North Orange and east Los Angeles Counties.

FINDING AND RECOMMENDATION

RECOMMENDATION I.6.1: EFFECTIVE PLANNING WILL BE KEY TO A SUCCESSFUL TRANSITION OF ONT TO ANOTHER AIRPORT AUTHORITY (OIAA).

Finding. LA City and LAWA have reached an agreement to transfer ONT ownership to Ontario International Airport Authority (OIAA).

In 2008, ONT was developing a freight movement system that would include the airport, two rail-lines, four major freeways, and a network of freight forwarders. ONT experienced a decline from 2008 through 2013, which was typical of other U. S. regional airports. This downward trend is shifting at ONT. In 2013, 3.9 million passengers used ONT.

In the first eight months of 2014, 84,345 more passengers had used ONT in comparison to the first eight months of 2013 – a 3.2% increase. This increase is attributed to the three flights per week to Guadalajara by the low-cost carrier Volaris. During the first 10 months of 2015 (as of October 2015), ONT's passenger traffic was up 5.64%.[51] The airport handled 380,584 passengers in October 2015, compared to the 360,256 passengers in October 2014.

51 "Traffic on Rise at LA/Ontario," Airport World, December 1, 2015.

Prior to the start of the 2016 IEA Survey and because of ONT's declining usage, public officials and community groups called for changes in the management of ONT, including transfer of the airport to local control, and related lawsuits were filed.

During Phase I of this IEA Survey, LAWA and the City of Los Angeles decided to transition ONT to a new airport authority. In December 2015, the Los Angeles City Council unanimously approved a $250-million agreement to settle the lawsuit, transferring responsibility for ONT to OIAA. If the Federal Aviation Administration (FAA) approves the transfer, the City of Ontario will reimburse LAWA for all outstanding Ontario bonds, approximately $60 million. The balance will be paid in a series of payments to the City of Los Angeles over the decade by using ONT's unrestricted cash accounts. These payments are to reimburse LAWA for ONT improvements made over the decades that it operated the airport.[52]

Los Angeles Mayor Eric Garcetti observed, "*We are now one step closer to finalizing a historic settlement that will improve air travel throughout Southern California and benefit residents and airport employees in both Los Angeles and Ontario.*"[53]

As a result, the Joint Administrators requested that the KH team not to focus on ONT.

Proposed Actions. Effective joint planning will be required to transfer ONT ownership.

Execution of an effective plan is critical for a successful transition of ONT. LAWA should continue its joint-planning efforts to ensure the smooth transition of:

- ONT ownership from the City of Los Angeles to OIAA
- LAWA's 200+ employees working there

Careful implementation of the transition can allow optimum staff retention, reducing redundancy and related staff costs to LAWA and OIAA. An effective transition is important to maintain guest service levels, security, and operational effectiveness. The change will have strategic implications to LAWA because LAX will ultimately not be able to accommodate forecasted passenger demand in the Los Angeles region.

52 http://www.pe.com/articles/ontario-789498-council-airport.html

53 http://www.pe.com/articles/ontario-789498-council-airport.html

KH CONSULTING GROUP MANAGEMENT CONSULTANTS

Industrial, Economic, & Administrative (IEA) Survey Report of Los Angeles World Airports (LAWA)

Part II: Measuring and Improving

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II.1: BSC IMPLEMENTATION

According to the U.S. Government Accountability Office (GAO):[1]

> *"Performance measurement is the ongoing monitoring and reporting of program accomplishments, particularly progress toward pre-established goals. It is typically conducted by program or agency management."*
>
> *"Performance measures may address the type or level of program activities conducted (process), the direct products and services delivered by a program (outputs), or the results of those products and services (outcomes)."*
>
> *"A 'program' may be any activity, project, function, or policy that has an identifiable purpose or set of objectives."*

Part II of the Industrial, Economic, & Administrative (IEA) Survey Report focuses on measuring and improving LAWA's performance. Although different LAWA divisions maintain extensive data for their own internal uses, LAWA lacks an integrated performance measurement system. This chapter presents:

- An overview of the Balanced Scorecard (BSC) model, a strategic approach to performance measurement
- The foundation for LAWA to develop a robust performance measurement system
- An overview of what is contained in the BSC prototypes
- A framework for implementing the BSC approach

LAWA's efforts to develop a performance management system could become a best practice in the City of Los Angeles if implemented fully.

Chapter II.2 through Chapter II.5 contain the BSC prototypes that KH Consulting Group (KH) in collaboration with Los Angeles World Airports (LAWA).

1 Source: GAO-11-646SP, Performance Measurement and Evaluation: Definitions and Relationships http://www.gao.gov/products/GAO-05-739SP May 2011.

KH

FINDINGS AND RECOMMENDATIONS

KH identified four types of measurements, shown in Table II.1a, that are needed at LAWA.

Table II.1a: Types and Examples of Measurements

Types of Measurements	Examples
System-wide: Numbers that represent the size and operational reach of the airport. Some of these are relatively unchanging, and some are fluid. LAWA staff should collectively work to influence those metrics that they can, recognizing that external factors (e.g., world economy, airline economy, fuel prices, etc.) are also key influencers that may have as much or more to do with the metrics as LAWA does.	Year-end data on: ▪ # of million annual passengers (MAP) ▪ # cargo tonnage ▪ # airport operations (take-off/landings) ▪ $ gross revenues ▪ $ total tax revenues (e.g., sales, parking occupancy, and possessory interest taxes) ▪ # LAWA employees on payroll – full-time and FTE ▪ $ LAWA payroll ▪ # contractors full-time ▪ # LAX acreage ▪ # square footage by terminal
Common: Numbers that are typically reported by a central organization (e.g., Human Resources (HR), Finance) to all managers, who are held accountable for keeping track of and managing in collaboration with the administrative units.	**Financial** ▪ $ budget performance against plan ▪ $ overtime expended against plan **Human Resources** ▪ # position vacancy rates ▪ # staff out of compliance with mandatory training requirements **Risk** ▪ # Injuries on Duty (IODs) reported ▪ # days lost to IODs ▪ # Workers' Compensation claims ▪ $ Workers' Compensation claims **Procurement** ▪ # contracts under management due to expire ▪ % SBE pledge/participation rates ▪ % SLBE pledge/participation rates

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Types of Measurements	Examples
Strategic: Linked to a strategic plan, strategic priorities, or a Strategy Map, such as: ▪ Improve management of landside in face of anticipated construction disruptions ▪ Improve management of capital construction ▪ Strengthen strategic, evidence-based management and accountability ▪ Increase economic development impact ▪ Expand LAX airside capacity	▪ % completion of the Consolidated Rent-A-Car Center (CONRAC) ▪ % completion of Airport People Mover (APM) ▪ % completion of major projects or project elements compared to % project budget spent ▪ % passengers and airport workers using public transit to travel to and from the airport ▪ % total capital project costs representing soft costs ▪ % high-risk audits completed in the planning period ▪ LAX airside capacity metrics (plane size, gate usage, etc.
Business: Measurements that are largely managed by one or a small group of units	**Revenue Generated** ▪ $ parking lot revenues ($ average per month) ▪ $ capital program expenses versus plan ▪ $ capital program expense forecast versus plan **Traffic Congestion and Efficient Access** ▪ # vehicles entering LAX CTA ▪ # vehicles entering parking lots ▪ #/% parking lots closed because at capacity ▪ % parking spaces unavailable due to construction by lot ▪ # average minutes of wait time for a taxi by terminal **Processes Improvements** ▪ # days cycle time for Badging reviews ▪ # days cycle-time for filling position vacancies **Safety** ▪ # airside traffic accidents ▪ # airside traffic violations ▪ # runway incursions

RECOMMENDATION II.1.1: LAWA SHOULD DEVELOP BSCS AND A PERFORMNCE MEASUREMENT SYSTEM.

Finding. LAWA is currently limited in its ability to extract and monitor performance measurements in an integrated manner.

As mentioned in Chapter I.2, LAWA has neither identified its strategic priorities nor established goals, objectives, and targets to measure, benchmark, and monitor progress against its program and services, except for its Modernization Programs. LAWA has some additional challenges in developing an

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integrated performance measurement system. These challenges include: data limitations, lack of software for compiling enterprise-wide statistical reports, data sharing constraints, lack of common core measurements, and enormous databases to mine.

Some data collection efforts are labor intensive or the data are unavailable. As already discussed in Chapter I.1 and Chapter I.2, each division develops its own systems and measurements for monitoring operations, activities, and outcomes. Some are better than others. Many are shadow systems (e.g., Excel spreadsheets or MS Word documents) with no central repository of information. Other divisions just do not have the data. Thus, a number of metrics on the BSCs developed with KH are marked as "NA."

LAWA will need to work with other business partners and other governmental agencies to obtain data. For some metrics, LAWA must rely on its partners to provide the data. In these instances, KH has color-coded those items; this situation is most prevalent on the Guest Experience BSC, where metrics are needed from air carriers or private-sector partners (e.g., private shuttle services, private parking lots, and concessionaires – coded in peach) and other governmental agencies (e.g., TSA, CBP, FAA, CBP, LADOT – coded in yellow).

LAWA has not tracked some data needed to drive evidence-based decision-making. LAWA does not track some data that is useful for decision-making; for example:

- LAWA has not tracked the reliability of its major building systems (elevators, escalators, HVAC) and yet such data are critical. With the new Maximo system, LAWA will be able to track downtime data in the future.
- Custodial Services are not tracked in a database format, such as Maximo.
- Basic parking statistics are unavailable, regarding parking occupancy rates (e.g., % hours a given parking lot is 100% full or # exit gates open in each parking lot). This shortcoming is one result of obsolete parking lot management technology. LAWA has plans in place to improve its lot management technology during the next several years.

Divisions do not routinely share data. LAWA does not share data across internal divisional lines that could support more effective planning, monitoring, and evaluation:

- LAWA lacks technology that would facilitate internal technology data sharing.
- Divisions have limited capabilities to digitally report real-time field data so it can be shared (i.e., parking, traffic, or site reviews).
- Several divisions would benefit from increased data sharing (e.g., Commercial Development Group (CDG), Capital Programming, Planning & Engineering (CPPEG), and Airports Development Group (ADG).

ARCC provides real-time data that are available to a cross-section of LAX and partner agencies (e.g., LAPD, TSA, FAA) and have become central to smooth operations at LAX. Within ARCC, the operation data are shared through advanced technology, but much of it is manually entered into Excel (spreadsheets). These data, however, are not readily available to staff members outside of ARCC.

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Reports about the data for other staff, including executives, are prepared manually (in Excel and some are even in MS Word), limiting the analytical usefulness of those data.

The number of measurements that LAWA could track is large. LAWA has an enormous quantity of data that it does and could monitor. Because of this quantity, careful consideration of what is important to monitor is critical.

Some LAWA divisions monitor key performance indicators (KPIs) regularly. Some are monthly (e.g., concessions revenues); others hourly or several times a day (traffic congestion); and some even more frequently (real-time for airside metrics). These indicators are central to addressing developing operational problems and contingencies.

Next are some examples to demonstrate the enormity of the situation.

Example 1 – Time to park at LAX. Many apps let drivers know how long it will take for them to reach LAX from their point of origin. Once inside LAX Central Terminal Area (CTA), however, the apps are not precise in pinpointing the time needed to reach parking garages or terminals for drop-offs or pick-ups. LAWA currently cannot measure how long it takes private cars to park once they enter the CTA.

Multiplier Effect of 1 Airport Measurement: Time to Park Once a Car Enters the CTA

Moreover, once collected, this measurement can split into more than 168 measurements (8 terminals x 3 peak periods x 7 days per week) – clearly more if done hourly or on a real-time basis. This level of detail goes well beyond what LAX Operations staff members can affect, at least in the short term. What is needed is or a limited set of measures that provide a general understanding of CTA congestion.

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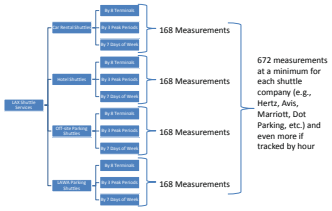
Example 2 – Shuttle services frequency and load factors.[2] Approximately 40 shuttle companies (e.g., car rental and hotel vans) provide shuttle services at LAX (not including LAWA's own busses and shuttles). LAWA currently tracks data (e.g., number of shuttles that enter/leave CTA) on an hourly basis by company, and then rolls up that data, by industry, and then into an overall total.

Multiplier Effect of 1 Airport Measurement: Frequency of Shuttle Services at LAX



At this time, there is no tracking of shuttle activity at the terminal level, only inbound/outbound to the CTA, but this does result in 350,000 data points: 365 days x 24 hours x 40 individual companies = 350,000. Private shuttle companies do not report load factors.

LAWA does not aggregate frequency data that would provide the average wait times for each shuttle service, by terminal, which would be of interest to travelers. LAX-operated shuttles run on a pre-set schedule and do not track load factors routinely. This measurement could result in at least 672 measurements, and even more if done by hour versus the 3 peak times each day. The LAX shuttles rely on standard transit industry measures that LAWA uses.

In contrast, private parking lots, hotels, and rental car companies primarily provide on-demand services with no set schedules. Some companies send shuttles only when travelers place a phone call; others run shuttles according to a schedule, that stretch as long as 30-minutes wait period during off-peak periods. Therefore, metrics for shuttles services is a mixed bag, and "waiting time" measurements are less meaningful.

While many of the detailed KPIs are critical to operational staff, executive and managerial staff members do not need to monitor the metrics at that level of detail. With so many data points and indicators, it is easy to miss the forest for the trees, getting lost in minutia without focusing on the longer-term strategic or operational implications.

A strategy to address this issue is to develop a "data mining" capacity that can produce intelligible and user-friendly reports for managers to use regarding their operations, projects, and strategic priorities. LAWA does not yet have that capacity.

2 The KH team used the following definitions for shuttle services:

- Headway: time in minutes between buses on the same route over the period measured (can be an hour or day or other, usually a peak hour)
- Throughput: Number of buses passing a designated point, usually in a peak hour
- Passenger counts: Average number of passengers aboard buses at a designated point. Where fares are collected, passengers are usually defined as the number of fares.

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Proposed Actions. LAWA should establish a BSC Office to work with IMTG, Finance, and other divisions to develop BSCs and streamline the efforts.

During the IEA Survey, KH's focus was to help sort through available data, identifying what data might be most useful to managers, executives, guests, and the public about operations and service issues. LAWA should use these initial BSCs to refine what it needs to monitor going forward. The proposed actions outline next steps to develop a robust performance measurement system.

PROPOSED ACTION STEPS

1. To start, the LAWA CEO should establish a BSC Office to manage the performance measurement initiative. The BSC Office should:
   - 1.1. Develop BSC templates for:
     - 1.1.1.Consistency of reporting
     - 1.1.2.Monitoring of BSCs developed to date
     - 1.1.3.Monitoring of common metrics across organizational units
     - 1.1.4.Data that should be reported at different frequencies (hourly, daily, weekly, monthly, quarterly, semi-annually, or annually)
   - 1.2. Assist with the implementation of the other proposed actions in collaboration with other divisions (LAWA executives, IMTG, Finance, and others), discussed in this chapter
   - 1.3. Prepare a LAWA Fact Book that contains system-wide data points that should be used internally for preparing BSCs and calculating efficiency ratios (e.g., $ revenues generated per EPAX, $ revenues generated per LAWA employee)
   - 1.4. Increase the sharing of operational data across divisions to enable better planning and reduce reactive responses
     - 1.4.1.Building the capability for such data sharing will require close coordination with IMTG.
2. The LAWA CEO should promote development of a complete performance measurement system by:
   - 2.1. Rolling out the BSC approach to areas not covered in the IEA Survey, using the IEA Survey BSC prototypes, in such areas as IMTG, ADG, CDG, and CPPEG
   - 2.2. Having future BSCs tied to goals, objectives, operational and financial targets, and planned initiatives, discussed next
3. LAWA should expand on the information currently shared on the LAWA website (http://www.lawa.org/welcome_lax.aspx?id=1106) with additional information of interest to the public, including "Fun Facts" about LAWA (e.g., # pets flown through LAWA annually, largest animal ever transported, # air operations per square mile of airport property, # passengers per week, films shot at VNY, or the year the first jet took off from LAX)

Proposed Actions. LAWA should develop the technology to mine data, prepare BSCs and dashboards, and analyze statistical trends and ratios for its managers, BOAC, and the public.

Some of the basic components that LAWA needs for a performance management system are discussed next. To develop these components will require the BSC Office, IMTG, and the other LAWA divisions to collaborate effectively.

Design and implement dashboards. LAWA should translate BSCs into user-friendly dashboards. While there are many different types of dashboards, most use visual elements – pie charts, bar graphs, and rating scales – to indicate whether metrics fall within acceptable parameters. As the BSC model is implemented across the organization, executives should establish acceptable thresholds so that metrics can be color-coded as:

- Green for meets or exceeds standards
- Yellow for areas of concern
- Red where immediate attention is called for

Use automation to produce user-friendly dashboard and reports. LAWA should use data mining and statistical analytics to produce user-friendly reports for managers regarding their operations, projects, and strategic priorities. Without such technology, the ability to compile statistics in a timely way is too labor intensive for LAWA to undertake. The frequency of the production of these reports will vary: some daily, some weekly, some monthly, some quarterly, and some annually.

Incorporate common measurements that all division monitor and manage in the dashboards. There is an old saying – "What gets measured gets done." For organization-wide goals, that is especially true. Top leadership attention to a handful of operational topics can be efficiently handled by managing common metrics. Potential metrics that should be monitored by every major organizational unit are outlined in Table II.1a on "Types and Examples of Measurements." LAWA leadership should identify measurements, whether these or others, that should be part of decision-making and monitoring in all major organizational units.

Improve divisions' capabilities to analyze and share data across divisions. Data-sharing is critical for a meaningful and effective performance management system, especially for such strategic BSCs as Guest Experience. LAWA should buy or build data systems and software that will enable sharing and common use of data. Common goals and outcome targets are essential to reduce the tendency in any government organization for units that indirectly support the accomplishment of outcomes (e.g., budget, finance, procurement, and HR) to lose sight of major operating initiatives in the face of pressure to adhere to process requirements, becoming at times impediments to success.

Develop performance ratios. Once LAWA has developed a performance management system, it will want to develop ratios to understand performance better (e.g., per unit costs or performance against other airport benchmarks). Such ratios are useful to assess efficiency, as contrasted with effectiveness. If LAWA does engage in benchmarking against other airports, it should remember that differences do not confirm that one airport is better than another. Rather, the differences should be the source of curiosity, investigation, and questions to determine why they exist and whether LAWA wishes to work toward different outcomes. LAWA should also focus on efficiency measures where they have some ability to influence or control the numerator or the denominator.

In developing ratios, LAWA will need to consider what should be the best denominator to use; for example, the denominator for passengers (PAX) can be either Million Annual Passengers (MAP) or Enplaned Passengers (EPAX) per year. The factors that determine which denominator to use can depend on different criteria: whether LAWA cares more about how many people pass through the airport in both directions, including transfers (MAP), or whether LAWA is more interested in the traffic generated in the region (EPAX).

Financial metrics vary significantly, depending on what is being reported. LAWA Finance tracks terminal and concession revenues by EPAX, because passengers disembarking from planes generally do not stay (and spend) in the terminals. These passengers typically head straight for baggage claim or curbsides. LAWA Finance also monitors ratios as well (e.g., debt per EPAX (standard industry), headcount per MAP, LAX cost per EPAX, and LAX national rating on EPAXs). Not all denominators have to be consistent, but do need to be clearly identified, and LAWA should use an agreed-upon source for each number.

Table II.1b outlines when MAP versus EPAX may be better denominators for developing ratios.

Table II.1b: Passenger Ratios

Number of Passengers Per Year	Examples of When to Use Different Passenger Counts for Ratios
Million Annual Passengers (MAP)[3]	▪ $ economic impact ▪ # Origin & Destination rankings ▪ # environmental impact ▪ # LAWA employee headcount ▪ $ aeronautical revenue ▪ # national or worldwide rankings ▪ # Part 1 Crimes
Enplaned Passengers (EPAX)[4]	▪ $ concession revenue ▪ $ other terminal revenue ▪ $ parking revenue ▪ $ non-aeronautical revenue ▪ $ debt ▪ # national or worldwide rankings

3 Chapter II.6 on "BSC – Financial Performance" presents MAP rankings and aircraft movements.
4 Chapter II.4 on "BSC – LAX Guest Experience" presents enplanement passenger trends at LAX.

MAP and EPAX numbers diverge significantly at some airports — Dallas (DFW), Chicago O'Hare (ORD), and Atlanta (ATL) among them; they are hub airports, and millions of passengers get off one airplane and onto another. LAX has an unusually large number of Origin & Destination (O&D) traffic – passengers who are NOT transfers. Therefore, LAX may prefer to use MAP when looking at ratios involving the economic impact on the region.

The kinds of system-wide data that may be useful for developing ratios are listed in Table II.1c.

Table II.1c: Sample System-Wide Measurements for LAWA

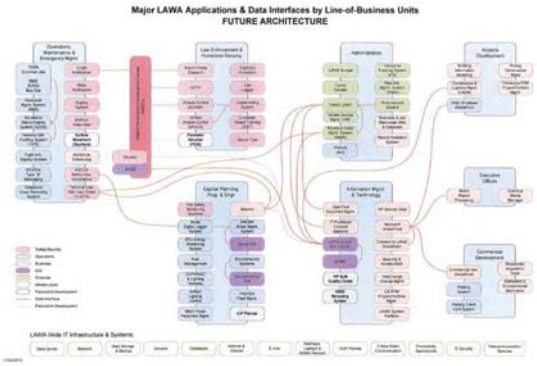
Data Label	Examples of System-wide Measurement	Data Label	Examples of System-wide Measurement

Passengers (PAX)	# of domestic PAX - Total
	# of domestic PAX - LAX
	# of domestic PAX - ONT
	# of international PAX - Total
	# of international PAX - LAX
	# of international PAX - ONT
	# of PAX - Total
	# of PAX - LAX
	# of PAX - ONT
	# of PAX - VNY
	# departing PAXs
	# inbound PAXs
	# arriving international PAXs, by terminal
	# departing international PAXs, by terminal
		Air Cargo	# tons of cargo landed
			# tons of cargo embarked
			# cargo tonnage - LAWA
			$ cargo value - LAWA
			# cargo tonnage - LAX
			$ cargo value - LAX
			# cargo tonnage - ONT
			$ cargo value - ONT

Terminal Space	# square footage by terminal - LAX T1 # square footage by terminal - LAX T2 # square footage by terminal - LAX T3 # square footage by terminal - LAX T4 # square footage by terminal - LAX T5 # square footage by terminal - LAX T6 # square footage by terminal - LAX T7 # square footage by terminal - LAX T8 # square footage by terminal - LAX TBIT # square footage by terminal - ONT T1USO # square footage by terminal - ONT T2 # square footage by terminal - ONT T4 # square footage by terminal - VNY	**Acreage**	# acres - LAX # acres - ONT # acres - VNY

Data Label	Examples of System-wide Measurement	Data Label	Examples of System-wide Measurement
Aircraft Operations	# aircraft arriving and departing # take-offs/landings per day - LAX # take-offs/landings per day - ONT # take-offs/landings per day - VNY		

Build on IMTG's expertise to mine and compile data from LAWA's various major systems and build dashboards. As shown in IMTG's diagram, "Major LAWA Applications & Data Interfaces by Line-of-Business Units," IMTG has begun to identify the interconnectivity of different databases and systems. This analysis will be useful in future compilation of needed data by mining existing LAWA data bases.



Source: IMTG, LAWA, November 2015.

IMTG is the logical organization to develop the technology to mine data, prepare BSCs and dashboards, and analyze statistical trends and ratios for its managers, BOAC, and the public.

PROPOSED ACTION STEPS

1. The BSC Office and IMTG should work with LAWA divisions to develop data-collecting, dashboards, and data-sharing tools, tied to the BSCs and other LAWA project planning and operational initiatives.
2. The BSC Office should ensure that dashboards contain common measurements that all divisions monitor and manage.

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3. The BSC Office, with ITMG support, should disseminate system-wide data points that all divisions use for preparing ratios
4. IMTG should work with operating divisions to expand access to real-time data needed to support operational decision-making.
   4.1. The real-time data availability at ARCC is an excellent model; unfortunately, data are only available to staff physically located at ARCC.
   4.2. IMTG should develop systems to share data as appropriate across or among LAWA divisions.
   4.3. IMTG can build programs to calculate the ongoing ratios that are useful for trend and comparative purposes.
5. The BSC Office should work with IMTG and LAWA executives to generate dashboards for policymakers (BOAC and City officials) and other external stakeholders.

Proposed Action: LAWA should identify high-level metrics that the executives should focus on.

LAWA executives should have access to BSC reports that focus on high-priority areas, display aggregated metrics, and highlight deviations from the target.

LAWA executives should rely on their managers and staff to make day-to-day operational decisions and execute the medium- and long-term strategies of the airports. Executive team members should not need or want to involve themselves in detailed metrics about daily, weekly, or even monthly operations, unless a specific incident occurs or one of the metrics is significantly beyond normal thresholds. Metrics tracked by the executive team should:

- Focus on progress toward departmental goal accomplishment
- Highlight difficulties or problems that have arisen that the executives can help address or focus attention on

So while it is often necessary for supervisors to have a good handle on hourly or daily indicators, (e.g., parking lot closures), LAWA executives might request exception reports that inform them when expected service levels are not regularly being met, or when a one-time significant disruption in service is causing airport-wide impacts. For example, LAWA executives might receive exception reports if the average rises above 10%, or if something is taking longer than 90 days – the exception reports would be tied to some threshold of tolerance.

The value in developing exception reports is three-fold:

- The establishment of what threshold levels are expected provides an opportunity during the development of the reports for fruitful discussions between the executives and staff about operational levels, barriers, and expectations.
- The managers and supervisors can focus on achieving and maintaining service levels with the freedom to learn, make mistakes, improve processes, and develop their teams free from hour-to-hour oversight of the executive team about changes in individual indicators.

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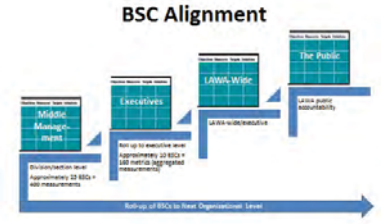
- The executives, confident that they will hear about immediate problems that they need to pay attention to, can take a longer view, planning for a multi-year time horizon in their areas. They can assess what is needed to "take new ground" for their divisions, the airports, the City, or the region as contrasted with fighting existing fires in their areas of expertise.

These reports can be supplemented with more detailed, regular metrics on areas of strategic importance, or significant executive concern, discussed next.

PROPOSED ACTION STEPS

1. The BSC Office should delineate the kind of BSC information that is needed by LAWA middle management (division and section levels), LAWA executives, and the public (discussed further in Chapter II.6 under "Informed Public")
   1.1. The BSC Office should ensure that the divisions focus on metrics (and the activities that drive them) that require attention. The focus should be on key areas of LAWA business that will improve with attention and worsen without it.
   1.2. Working with the divisions, the BSC Office should identify the frequency for monitoring different metrics, by division and other organizational levels.
      1.2.1. The BSC Office and executive team should monitor less frequently those metrics that are unlikely to change over a multi-year period (e.g., LA-themed concessions, which have 10-year agreements at a minimum).
2. All BSCs should have established targets for almost all metrics.
3. The BSC Office should use the targets to establish thresholds for issuing exception reports.

The spreadsheet is a sample BSC that shows the kinds of metrics that a LAWA executive might track.



BSC Framework for LAWA Executives

Performance Metrics	Org/ Div	Prior Years 2012-2013	Prior Years 2013-2014	Base Year 2014-2015	Target 2025	Frequency Monitored
Corporate Social Responsibility						
# noise complaints per 10,000 departures						
$ awarded to certified Local Small Businesses (LSBEs)						
$ contribution to City General fund through property taxes, possessory interest taxes, TOT, POT, and sales taxes in or adjacent to LAX						
# Air Quality Index level at LAX						
Customer/Guest Services						
Concessions & leases: $ concession revenue per EPAX						
Concessions & leases: $ terminal concession revenue per sq. ft.						
Concessions & leases: # incidents of TSA and CBP wait times exceeding target (20 minutes)						
Concessions & leases: # incidents of CTA roadway congestion exceeding targets (adjusted for time of day						
# emergency requests for repairs in public areas of the terminals						
Airport Infrastructure/Operations						
Safety: # runway incursion per 1,000 operations						
Safety: % hours Injury On Duty (IOD) of total hours paid						
Safety: $ Workers' Compensations costs per FTE						
Capital: # construction projects exceeding 10% over contract award						
Capital: $ capital projects currently under construction						
Capital: $ deferred maintenance						
Internal Organization/Technology						
Produc-tivity: % hours overtime of total paid hours						
Produc-tivity: % sick time of total paid hours						
Produc-tivity: $ total operating revenue per FTE						
Learning/ Employee						
Develo-pment: % compliance with mandated trainings						
Develo-pment: % supervisors trained in Supervisors Tool Kit						
Financial						
Income: $ revenue from landing fees						
Income: $ revenue from terminal concessions						
Income: $ revenue from non-terminal concessions						
Expense: $ LAX operating expense per enplaned PAX (EPAX)						
Expense: $ airline cost per enplanement						
Expense: $ debt per EPAX						

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Proposed Action: LAWA should develop performance measurements for other strategic or critical areas.

In Chapter I.2, KH discussed the need for strategic planning and the development of strategic priorities at LAWA. The CSR and Guest Experience BSCs are prototypes of strategic BSCs that require the involvement of multiple divisions and address high-priority issues at LAWA. LAWA has other high-priority areas that would benefit from the development of Strategy Maps and BSCs.

Examples of strategic priorities that might benefit from dedicated BSCs are:

- Improvement of management of capital construction (capital planning/budgeting, SAP, project management, ADG augmentation staff)
- Improvement of management of landside operations, facilities maintenance, commercial development, and technology development, particularly in face of anticipated disruptions
- Strengthening strategic, evidence-based management and accountability (performance budgeting, Internal Audit, Procurement)

LAWA managers and supervisors might also track such tactical or critical areas as:

- ***Total number of shuttles entering the CTA, by industry***, which would show changes due to big projects, such as the APM construction, and smaller tactical changes in agreements with the shuttle operators. By aggregating the numbers to show the average of all shuttles entering the CTA per day and monthly, LAWA can begin to see changes day-to-day and month-to-month.
- ***Exception reporting so that when a threshold level is surpassed, actions can be taken.*** If LAWA starts to lose throughput, the relevant supervisors and managers can be alerted for immediate action. As discussed in the executive reporting section, if the threshold is exceeded regularly (e.g., more than 3 times a week for a period of 1 month,) then the CEO or COO would be informed.
- ***Average headways.*** LAWA should monitor the headways LAWA for airline connection buses — the buses that serve the terminals, the ones that serve LAX remote parking lots, the Green Line Connection Bus, and the employee shuttles. LAWA will have a good starting point if they can obtain those data points.
- ***Throughput (the number of buses that pass a given point in a particular hour) — usually but not always at peak hours.*** This information should be available from the AVI system in use at LAX. It measures the volume of transport capacity provided in peak periods. It is especially important, given the difficulty in accurately estimating the passenger loads on buses that do not impose passenger fares. It may be that headways and throughput can be gathered in a single analysis of AVI data.
- ***Overall carbon emission impact*** of vehicles in and approaching the CTA

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PROPOSED ACTION STEPS

1. LAWA executives should identify 3 to 5 high-priority issues, based on the adopted Strategy Map, that would benefit from dedicated BSCs
2. LAWA executives should form working groups of involved divisions to develop new strategic and tactical BSCs, including metrics need for operational monitoring as well as executive review.

RECOMMENDATION II.1.2: LAWA SHOULD DESIGNATE FINANCE TO MANAGE FINANCIAL METRICS REPORTED IN ALL BALANCED SCORECARDS (BSC).

Finding. Financial metrics have been developed, monitored, and presented by units throughout LAWA, not just by Finance.

Each LAWA division has identified what is important for them as financial indicators of performance; they each prepare their own means for developing, monitoring, and presenting financial metrics. This situation leads to reports that ostensibly show different numbers for the same purpose due to:

- Similarly titled metrics using different definitions of the data elements being monitored
- Differing time horizons for the data being presented
- No independent control or verification over data elements

Proposed Actions. LAWA should consolidate responsibility for financial metrics under Finance to prepare a LAWA-wide Financial BSC.

During the course of the IEA Survey, the KH team worked with Finance staff members and developed BSCs for finance and accounting, as well as common financial measurements for all LAWA divisions, already discussed in Recommendation II.1.1. The BSCs are important to Finance because they provide clear, concise metrics to demonstrate LAWA's performance in:

- Meeting its strategic financial goals
- Managing its financial risks, including revenue and cost exposures
- Reporting that it is fiscally responsible
- Ensuring that this information is available to LAWA executives and other stakeholders in a consistent and timely fashion for effective decision-making

Moreover, Finance must be responsible for responding to BOAC and executive requests for specific financial information. As the unit in charge of SAP data, Finance is best positioned to query the financial database to ensure that accurate and complete information is reported.

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PROPOSED ACTION STEPS

1. In addition to defining and producing metrics for the Financial BSCs, Finance should define and gather financial metrics/ratios reported in other BSCs. This action will ensure the accuracy and consistency of financial and operational data being presented.
2. To simplify managerial use of financial data, Finance and IMTG should look into technology options for making all metrics, not just financial, available on a dashboards (as discussed in Recommendation II.1.1). This financial information should be:
   2.1. Easily customized and accessed by all units within LAWA up to the CEO
   2.2. Readily converted into dashboards for policymakers (BOAC and City officials) and other external stakeholders

Consolidating responsibility for financial information within Finance will:

- Provide independent oversight over financial data being presented
- Ensure that all BSC information is presented in a timely and consistent manner
- Identify the central point of contact for all financial BSC inquiries
- Improve transparency in reporting LAWA's progress toward meeting its financial goals and objectives

BSCS DEVELOPED

RECOMMENDATION II.1.3: LAWA SHOULD REVIEW, REFINE, ADOPT, AND MONITOR THE BALANCED SCORECARDS (BSC) DEVELOPED DURING THE IEA SURVEY.

Finding. The BSCs developed during the IEA Survey are a first step in designing and implementing a performance management system.

KH prepared the BSCs, contained in Chapter II.2 through Chapter II.5, as prototypes for LAWA to use to develop a performance management system. The developed BSC prototypes focus on:

- Corporate Social Responsibility
- LAX Guest Experience, including core services and world-class services
- Administrative support areas (Human Resources, Procurement, and Internal Audit)
- Finance, risk management, accounting, and budgeting

Proposed Actions. LAWA should build on the BSCs prototypes and monitor and enhance them in the coming years.

LAWA should build on KH's initial work to develop a performance management system, tied to objectives, targets, and initiatives. The BSCs should help to identify trends and establish targets.

Identifying trends. As much as possible, the KH team obtained data for the last three years so that trends could be analyzed. As already mentioned, in some areas, multi-year data were not available because LAWA staff had not compiled performance measurements in the past and found the request to search historical data to be either not possible or too labor intensive. In those instances, we have

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furnished current data (mostly FY 2014-2015), which can be used as a baseline for compiling data in future years.

In areas where the data are not available, KH has entered "NA." There are some measurements that would be great to have and should eventually be compiled but, with the current LAWA capabilities, are not feasible to compile at this juncture.

Benchmarking. During the 1999 and 2008 IEA Surveys, the City requested the KH team to gather extensive information on best practices and benchmarks at other comparable airports around the world. This was not the request in the 2016 IEA Survey. Therefore, given LAWA's commitment to improve the guest experience, LAWA should start collecting more benchmark information. In early 2016, LAWA will conduct guest surveys to better understand the guest experience; such surveys will require further analysis to derive meaningful metrics from the findings (e.g., # delayed/missed flights due to transportation delays). In analyzing trends and collecting information to establish objectives and targets, discussed next, LAWA should seek out best practices, not just prevailing practices, at other airports.

Goals and objectives. As discussed in Recommendation I.1.2, LAWA should use the goals and BSCs as a starting for developing objectives and setting targets. The goals are general and aspirational. In contrast, the objectives should be **S**pecific, **M**easurable, **A**chievable, and **R**elevant with **T**ime lines (SMART objectives). For example, in the area of economic impact, the goal might be that *"LAWA's airports are a trade gateway between the LA region and the world."* The specific objective for cargo trade, however, might be more specific, such as: *"Increase trans-Pacific cargo volumes by 10% by December 2017."* This objective is meets the SMART criteria.

Targets. Some targets are already established at LAWA; others are mandated by Federal or State regulations (e.g., environmental requirements) or City policies (e.g., Local Small Business Enterprise (LSBE) participation rates). Establishing targets is difficult if neither baseline or prior trend data are available nor best practices/benchmarks at comparable airports are known. Where reference points are lacking, LAWA will need to use 2014-2015 as a baseline year and develop targets in subsequent years. Targets should reflect the reality that LAWA controls some factors, influences others, and has no leverage on still other factors that influence its business. These external factors include:

- The growth plans of the airline industry at LAX
- The growth plans and development of local businesses, including types of businesses that may or may not be dependent on air traffic
- The availability of parking within the area or changes in parking capacity affected by improvements or relocations
- The traffic flow of adjacent streets and highways
- Planned road improvements
- Passenger and worker interest in using rail/people mover options
- The impact of rail options on travel times and street congestion
- Potential economic impact for airport tenants (e.g., rental car agencies and parking facilities)

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BSC framework for goals, objectives, targets, and initiatives. LAWA should use the BSC framework to display linkages among goals, objectives, measurements, targets, and initiatives. This framework increases the likelihood of ensuring a coordinated, concerted effort toward reaching LAWA's overall goals.

Sample BSC Tied to Targets and Initiatives

Economic & Fiscal Impact			
Goal: LAWA's airports are a trade gateway between the LA region and the world.			
Priority Area: Cargo Trade			
Objectives	**Measurements**	**Targets**	**Initiatives**
Increase trans-Pacific cargo volumes by 10% by December 2017	▪ $ annual value of cargo, by country ▪ % trade moving through LAX ▪ $ air cargo value ▪ # total tons air cargo ▪ # tons landed ▪ # tons departed	▪ +10% increase in $ annual value of cargo ▪ +10% increase in market share	▪ Targeted marketing campaigns to countries with greatest air cargo levels ▪ Incentive program for freight forwarders to use LAX

The measurements are good indicators of performance.

The targets should be based on measurements and build toward the achievement of the objective.

The initiatives position LAWA to achieve its targets.

In the sample, a 10% increase in cargo is a stretch goal, given that almost 2 million tons of cargo came through LAX last year and LAWA's limited ability to impact the number of tons of air cargo coming to LAX.

KH also considered data collection concerns:

Frequency of data collection. The KH team has prepared initial suggestions on frequency for collecting data, based on current practices at LAWA, prevailing practices at other entities, criticality of timing of data (airfield), ease in collecting data, and other criteria. The following abbreviations are used to indicate:

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H	=	Hourly
D	=	Daily
W	=	Weekly
M	=	Monthly
Q	=	Quarterly
SA	=	Semi-Annually
A	=	Annually

There are two questions about frequency of data collection that need to be answered:

1. ***How frequently are the data collected?*** This frequency can range from quarterly counting of paper requisitions, to daily maintenance of manual logs, to instantaneous electronic storage of AVI data.
2. ***How frequently are the data compiled, reported, analyzed or used?*** Decisions about this frequency will depend on who is using the data, and what they are using the data for. Once collected, data must then be aggregated, analyzed, and reported at different times to different organizational levels, based on need. For example, traffic officers at LAX may need to know hourly or daily traffic data, but the executive team does not and should not be micro-managing that level of data. Although process cycle time data must be monitored, it need not be monitored daily, weekly, or even monthly in some cases because the performance levels may not change. Cycle times are typically stable and do not change quickly.

Data sources. KH has documented and can provide the data sources of the BSC indicators so LAWA can make annual updates in subsequent years. Some of these data sources are specific LAWA divisions; others are websites in the public domain (e.g., FAA National Air Space System Status reports, www.fly.faa.gov/ois/jsp/summary_sys.jsp, or www.transtats.bts.gov).

PROPOSED ACTION STEPS

Implementing the BSC prototypes is the first step toward building a comprehensive performance measurement system, which LAWA will continually need to refine and improvement. Other proposed action steps are outlined next.

1. LAWA should review, refine, adopt, and monitor the developed BSCs in Chapters II.2 through II.6.
2. As also discussed in Recommendation I.2.1, LAWA executives and BOAC should:
   - 2.1. Review, refine, expand on, and adopt the goals initially developed by KH
   - 2.2. Establish objectives that are specific, measurable, achievable, and relevant with time lines (SMART objectives).
   - 2.3. Establish targets for individual indicators linked to these measurable objectives
3. All LAWA division managers should have BSCs, focusing on the top 5 to 15 overall performance metrics in their areas.
   - 3.1. Additional operational metrics may be tracked as well and separate from BSCs.
4. LAWA divisions and cross-functional working groups should define targets by:
   - 4.1. Analyzing internal and external trends
   - 4.2. Conducting benchmarking studies

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   - 4.3. Assessing best practices at comparable airports
     - 4.3.1. Given LAWA's position in the industry, best practice assessments should keep in mind that the best practice may be the one(s) currently in use at LAWA. (ARCC would be one example of such a best practice.)
5. LAWA executives should review the developed BSCs' trends, targets, and outcomes for each division at least once a year.
   - 5.1. Some BSC metrics should be reviewed quarterly or monthly.
6. The BSC Office should:
   - 6.1. Collect and monitor data on a pre-set schedule
   - 6.2. Work with LAWA management to refine the BSCs based on each year's experience and extend BSC target forecasts for at least two years
   - 6.3. Communicate BSC trends, targets, and outcomes with involved LAWA divisions and executives
7. The BSC Office should collaborate with Finance during the budgeting process to ensure linkages between planned, measurable outcomes and budget expenditures
8. LAWA should share BSC outcomes with the public, as discussed regarding an "Informed Public" in Chapter II.6.

The general benefits of such a system are:

- Improved coordination and achievement of desired outcomes
- Improved efficiency, effectiveness, response, and planning
- Reduced risks and overall costs
- Increased transparency into LAWA's ongoing progress in accomplishing its goals

When the BSCs contain metrics focused on specific strategic goals, the BSC benefits are greater. Examples of benefits might involve LAWA's ability to:

- Mitigate traffic congestion by understanding what actions and notifications to incoming guests work best to gain the best use of limited CTA capacity
- Maximize parking use by determining effective ways to notify inbound guests about the availability of CTA parking and alternatives when CTA parking capacity is saturated
- Identify actions that reduce airside accidents and incursions
- Reduce Cap & Trade charges by devising strategies to lower carbon emissions or create offsets
- Measure the effects of preventive maintenance and capital maintenance strategies to realize an optimum financial return on capital assets, as well as high levels of guest service

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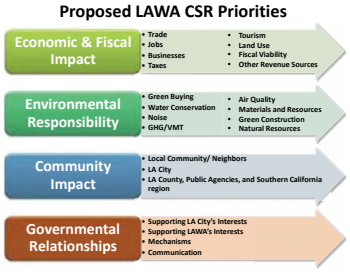
II.2: BSC – CORPORATE SOCIAL RESPONSIBILITY

OVERVIEW

Corporate Social Responsibility (CSR) is discussed in greater detail in Chapter I.3 and includes Economic & Fiscal, Environmental, Community Impact, and Governmental Relationships. Economic & fiscal and environmental issues are of great interest to the neighboring communities, as well as the entire SCAG region; therefore, KH focused on developing BSCs prototypes in those two areas.

LAWA has produced bi-annual reports on the environment since 2008, but had not developed any routine approach to economic impact data.

Proposed LAWA CSR Priorities



Because LAWA does not routinely compile CSR data, KH had to focus on compiling the latest Calendar Year (CY) or Fiscal Year (FY) data as a starting point. In most cases, the CY is for 2014 and the FY is for 2013-2014. These base years can form a foundation for subsequent updates.

ECONOMIC & FISCAL IMPACT

Chapter I.3 discusses the goals for LAWA's Economic & Fiscal Impact. To gain an understanding of the economic impact, the KH team used a broad variety of primary data sources, ranging from the County of Los Angeles Office of the Assessor's data, State of California databases, and U.S. Bureau of Labor Statistics records that were available through the Labor Market Information Division. The City of Los Angeles has General Plans, Specific Plans, and regional and local Transportation Plans that also helped to identify the potential for coordinated economic development opportunities, resulting from LAWA's land use plans in place.

Alignment of Measurements with Goals

Table II.2a aligns these goals with suggested measurements. LAWA will still need to confirm these goals and establish objectives and targets. For example, for guest experience, an objective might be *"increase guest satisfaction ratings from an overall average of 3.5 to 4.0 on a scale of 1-5 by December 2020."*

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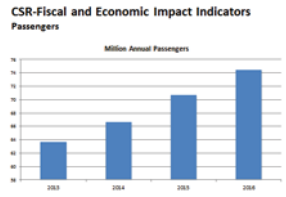
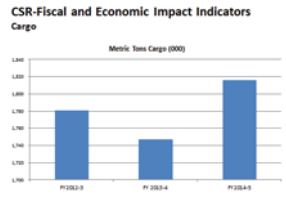
Table II.2a: Sample Economic Impact Goals and Potential Measurements

Potential Measurements	Sample LAWA Economic/Fiscal Impact Performance Indicators
Goal – Overall Economic Impact: Facilities operated by LAWA support the economic health of the region, as well as surrounding communities.	
Trade (Passengers and Cargo)	
Goal: LAWA's airports are a trade gateway between the LA region and the world.	
Ranking ▪ # ranking in world airports ▪ # average aircraft movements per day ▪ # guest satisfaction rating **Passengers** ▪ # Million Annual Passengers (MAP) ▪ # Origin & Destination (O&D) PAX ▪ % O&D PAX of total MAP ▪ $ PAX – LAX and VNY **Trade** ▪ $ annual value of cargo ▪ # tons of cargo ▪ % cargo trade moving through LAX **Cargo** ▪ $ air cargo value ▪ # total tons air cargo ▪ # tons landed ▪ # tons departed	See performance metrics in Chapter II.6 on "BSC – Financial Performance" for rankings and aircraft movements.  
Jobs: Employment and Payroll	
Goal: LAWA facilities are an important source of jobs to the residents of Los Angeles County and the Southern California Association of Governments (SCAG) region.	

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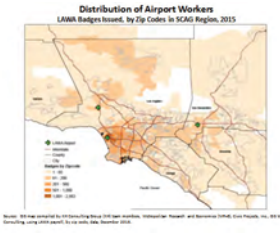
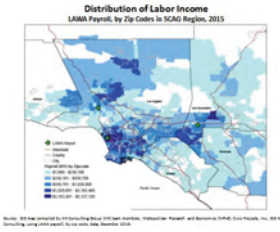
Potential Measurements	Sample LAWA Economic/Fiscal Impact Performance Indicators
▪ # total workers employed at airport ▪ # LA County residents employed by LAWA o # LAWA employees by zip code o # LAWA employees in LA City zip codes o # LAWA employees in adjacent zip codes (not LA) ▪ # LA County residents employed at LAWA facilities (badged workers) other than LAWA employees o # LAX/VNY workers by zip code o # LAX/VNY workers in LA City zip codes o # LAX/VNY workers in adjacent zip codes (not LA) ▪ # jobs to LA County at LAWA facilities by residents by others, direct employees and badged workers ▪ $ labor force occupation and income data for each airport and surrounding markets o $ LAX estimated payroll by zip code o $ estimated payroll in LA City by zip code o $ estimated payroll in adjacent city zip codes (not LA) ▪ # construction jobs at LAX (full-time equivalents (FTEs)) ▪ # badged employees at LAX ▪ # net new jobs at LAX after construction ▪ # total workers employed in adjacent businesses (e.g., hotels, car rentals, parking operations, or restaurants within a 5-mile radius) ▪ # jobs in visitor serving sectors (e.g., hotels, tourist attractions, etc.)	▪ 39,381 badged employees and workers at LAWA (direct employment) ▪ At least $1.2 billion in wages of the 39,381 badged employees and workers at LAWA (direct employment) ▪ $153.1 million in LAWA payroll ▪ See Chapter I.3 for an explanation of the GIS maps and the GIS maps for Los Angeles County. Appendix B contains the GIS maps for City of Los Angeles and the SCAG region.  
Businesses	
Goal: LAWA facilities are an important source of opportunity for businesses in Los Angeles County and the SCAG region.	
▪ $ business volumes ▪ # businesses benefiting LAWA's business and job resources, programs, and efforts	▪ $1.2 billion in procurement activities to the regional economy ▪ $62 billion to local businesses

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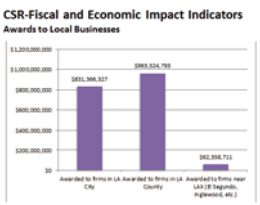
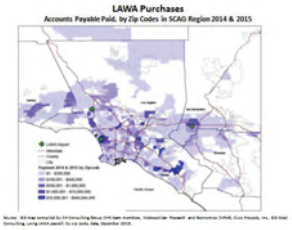
Potential Measurements	Sample LAWA Economic/Fiscal Impact Performance Indicators
▪ # certified Small Businesses Enterprises (SBEs) doing business at LAWA ▪ $ awarded to certified SBEs ▪ % change from prior year of certified SBEs doing business at LAWA ▪ # certified Small Local Businesses Enterprises (SLBEs) doing business at LAWA ▪ $ awarded to certified SLBEs ▪ % change from prior year of certified SLBEs doing business at LAWA	 See Chapter I.3 for an explanation of the GIS maps and the GIS maps for Los Angeles County. Appendix B contains the GIS maps for City of Los Angeles and the SCAG region. 
Taxes	
Goal: LAWA is an important source of tax revenue to the City of Los Angeles, Los Angeles County, and the rest of the State.	
▪ $ retail sales tax generated at airports ▪ $ Transient Occupancy Tax (TOT) generated by adjacent hotels ▪ $ Parking Occupancy Tax (POT) generated at LAWA ▪ $ POT generated at airport-related parking	▪ $92.7 million to the County of Los Angeles annually in possessory & secured property taxes and sales taxes from retail, food, and beverages sold (another $33.4 million in sales taxes goes to the State of California) ▪ $876,000 in Parking Occupancy Tax (POT) generated by LAWA

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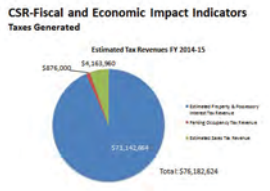
Potential Measurements	Sample LAWA Economic/Fiscal Impact Performance Indicators
lots ▪ $ secured property taxes or possessory interest taxes ▪ $ unsecured property taxes ▪ $ local payroll taxes	
Tourism	
Goal: LAWA airports are key partners and stakeholders in the Los Angeles regional tourism industry.	
▪ # estimated annual tourists arriving at LAX ▪ % of total Los Angeles tourists arriving at LAX ▪ $ revenue that tourism of LAWA passengers contributes to economy of Los Angeles region ▪ $ expended via tourism, based on surveys or estimates of PAX through LAX for business, leisure, and transit to analyze spending patterns for each category ▪ % revenue that tourism from LAWA passengers contributes to the local economy	▪ See performance metrics in Chapter II.3 on "BSC – LAX Guest Experience."
Land Use	
Goal: LAWA plans prudently and seeks to use the land it needs in ways that improve the environment and aesthetics of airport properties.	

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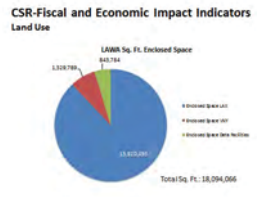
Potential Measurements	Sample LAWA Economic/Fiscal Impact Performance Indicators
▪ $ increases in assessed valuation in a 5-mile radius around LAX and VNY ▪ # land use and development opportunity sites around LAX and VNY ▪ $ investments and land acquisitions adjacent to LAWA airports, made by LAWA ▪ $ impact of LAWA's property management and leasing policies and procedures with respect to development, financing, and leasing of airport buildings and grounds to aviation and non-aviation tenants	
Fiscal Viability	
Goal: LAWA operates facilities in a fiscally responsible manner, ensuring the long-term sustainability of its assets.	
▪ LAWA bond rating ▪ $ Annual net revenue (increase or decrease in reserves) ▪ $ debt per EPAX ▪ $ cost per enplanement ▪ $ cost per enplanement in comparison to ranking among top 20 US airports ▪ $ revenues generated – total and landing fees	▪ See performance metrics in Chapter II.6 on "BSC – Financial Performance."
Environmental Fines/Trade	
Goal: LAWA's consistently reduces its carbon-emission fines. In the long term, LAWA envisions the Carbon Cap-and-Trade system as a possible potential revenue opportunity.	
▪ $ fines for Central Utility Plant (CUP) and fuel throughput ▪ # Green House Gas (GHG) emission levels ▪ $ invested in reducing carbon emissions	▪ See next section in Chapter II.2 for greater details on Environmental Responsibility.

Balanced Scorecard – CSR for Economic & Fiscal Impact

The next pages display the initial CSR BSC for Economic & Fiscal Impact that KH developed as a starting point for LAWA.

Los Angeles World Airports (LAWA)
Industrial, Economic, & Administrative (IEA) Survey
Balanced Scorecard: CSR - ECONOMIC & FISCAL IMPACT

#	CSR Measurement Description	FY 2013-2014 or CY 2014	Target 2020	Freq
1	**ECONOMIC & FISCAL IMPACT**			
1.1	**Local Suppliers**			
1.1.1	$ total purchased from local suppliers	$1,247,358,286	SCAG	Q
1.1.2	$ total awarded to firms in LA City	$831,366,327	TBD	SA
1.1.3	$ total awarded to firms in LA County	$963,524,793	TBD	A
1.1.4	$ total awarded to firms surrounding LAX (El Segundo, Inglewood, etc.)	$62,358,711	TBD	A
1.1.5	$ total awarded to firms in California	$1,502,671,401	TBD	A
1.1.6	# new local suppliers identified	NA	TBD	A
1.2	**Employment & Household Income**			
1.2.1	# jobs supported directly by LAWA	39,381	TBD	A
1.2.2	$ (estimated) earned by local households in LA County due to LAWA	$150,014,413	TBD	A
1.2.3	$ (estimated) earned by local households in LA City due to LAWA	$45,563,335	TBD	A
1.2.4	$ (MM) labor income in City of LA - LAWA	$150,014,413	TBD	A
1.2.5	$ (MM) labor income in adjacent zip codes - LAWA	$11,336,981	TBD	A
1.3	**LAWA's Local Expenditures**			
1.3.1	$ expenditures in LA County	$963,524,793	TBD	A
1.3.2	$ expenditures in LA City	$831,366,327	TBD	
1.4	**Tax Revenues**			
1.4.1	$ estimated sales tax generated by airport-related businesses	$4,163,960	TBD	A
1.4.2	$ Parking Occupancy Tax (POT) - LAWA	$876,000	TBD	A
1.4.3	$ Possessory Interest Tax Revenue - LAX	$39,911,248	TBD	A
1.4.4	$ Secured Property Tax Revenue - LAX	$13,708,686	TBD	
1.4.5	$ Possessory Interest Tax Revenue - VNY	$16,941,663	TBD	A
1.4.6	$ Secured Property Tax Revenue - VNY	$581,067	TBD	
1.5	**Economic Output**			
1.5.1	$ economic output - LAWA	$963,524,793	TBD	A

ENVIRONMENTAL RESPONSIBILITY

Chapter I.3 discusses the goals for LAWA's environmental responsibility.

Alignment of Measurements with Goals

Table II.2b aligns these goals with suggested measurements. LAWA will still need to confirm these goals and establish objectives and targets. For example, for green buying, an objective might be *"increase consumable building supplies that meet IFMA environmental standards or equivalent by 30% by June 2018"* or something similar.

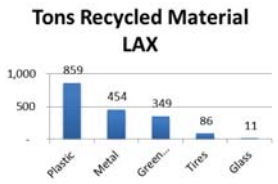
Table II.2b: Sample Environmental Responsibility Goals and Potential Measurements

Potential Measurements	Sample LAWA Environmental Performance Indicators
Green Buying	
Goal: Sustainability is a priority in purchasing decisions regarding sources and materials purchased.	
▪ % consumable building supplies purchased that meet IFMA environmental standards or equivalent ▪ % non-recyclable products	To be gathered: ▪ #/$/% consumable products meeting IFMA environmental standards or equivalent ▪ #/$/% consumable building supplies purchased that meet IFMA environmental standards or equivalent ▪ #/$/% suppliers engaged in Extended Producer Responsibility (EPR) and resource recovery
Water Conservation	
Goal: Water is conserved to the extent feasible.	
▪ % overall reduction in water usage compared to base year, using California water reduction standards ▪ # million gallons water consumed ▪ % of target market ▪ # gallons total potable water consumed LAX ▪ # gallons runoff water exceeding pollution standards ▪ % drought-related goals achieved ▪ # gallons in reduced water usage per 100,000 PAX[5]	In 2014: ▪ Gallons Potable Water consumed: 501,786,824 o Goal: 20% reduction by 2017 ▪ Gallons reclaimed water consumed: 57,411,992 ▪ Landscaped area using reclaimed water: 63% (51 acres) ▪ Landscaped areas using computerized, Internet-based, controlled irrigation: 95% To be gathered: ▪ Locally sourced water – Goal: 50% by 2035 ▪ Recycled water ▪ Storm water captured
Noise	
Goal: LAWA encourages and promotes aircraft operations that minimize community noise impact. LAWA takes steps to mitigate traffic and aircraft noise impact on surrounding communities.	
▪ # aircraft exceeding Federal noise limits per month	Sound insulation completed: ▪ Total LAWA: 2,211

5 Based on Million Annual Passengers (MAP).

Potential Measurements	Sample LAWA Environmental Performance Indicators
▪ # noise complaints per 10,000 departures ▪ % change noise complaints per 100,000 PAX ▪ # aircraft exceeding Federal limits	▪ El Segundo 39% of eligible structures ▪ County of LA: 56% of eligible structures ▪ Inglewood 61% of eligible structures To be reported: ▪ Noise complaints at LAX ▪ Noise complaints at VNY ▪ Noise complaints per 1,000 departures at LAX ▪ Noise complaints per 100 departures at VNY ▪ Noise exceeding threshold by aircraft type at LAX ▪ Noise exceeding threshold by aircraft type at VNY ▪ Noise exceeding threshold by direction of departure at LAX ▪ Noise exceeding threshold by direction of departure at VNY
Energy Stewardship	
Goal: LAWA takes consistent steps to use its energy resources more efficiently.	
▪ % renewable energy generated on-site ▪ % green power purchased of total electricity used ▪ $ cost of vehicle energy at LAX ▪ % change of cost of vehicle energy at LAX per 100,000 PAX ▪ # jet fuel throughput	▪ # EV charging stations: 47 ▪ $ green power purchase: 20,917,626 kWh ▪ % of total power purchase from green sources: 9.8% ▪ # tons California Cap and Trade Total offset emissions (GHG and AQ): 36,230 tons
Greenhouse House Gas/Vehicular Miles Traveled (GHG/VMT)	
Goal: LAWA takes steps to reduce GHG and VMT where feasible.	
▪ # tons LAX CA Cap & Trade total offset emissions (GHG and AQ) in tons ▪ # GHG buildings LAWA ▪ # VMT LAX goods movement ▪ % change GHG per 100,000 PAX ▪ % change VMT per 100,000 PAX ▪ # VMT of employees at LAWA facilities ▪ # vehicles entering CTA (average per day) ▪ # VMT associated with trips in and out of LAX	See Chapter I.3 for an explanation of the GIS maps and the GIS maps for Los Angeles County. Appendix B contains the GIS maps for City of Los Angeles and the SCAG region. **Land Use – One-Way Trips to LAX** 2012 Traveler Trips in One Direction to LAX for the Peak Day of the Average Month – SCAG Region

Potential Measurements	Sample LAWA Environmental Performance Indicators
	LAWA Goals for GHG Reduction 100%, 80%, 60%, 40%, 20%, 0% 2025, 2035, 2050 Overall, Buildings, Goods Movement **LAX Goals for Vehicle Miles Traveled Reduction** 20%, 10%, 0% 2025, 2035 LAX Cars, LAX Goods Movement
Air Quality	
Goal: LAWA takes steps to minimize and diminish negative impacts on air quality.	
▪ # vehicles entering CTA (average per day) ▪ # Carbon Dioxide LAX emissions at stationary sources (buildings) MTCO2 ▪ # Carbon Dioxide at LAX in LAWA owned vehicles MTCO2 ▪ # Carbon Dioxide at LAX in non-LAWA-owned vehicles MTCO2 ▪ % change CO2 of LAWA owned vehicles per 100,000 PAX ▪ % change CO2 of non-LAWA-owned vehicles per 100,000 PAX ▪ % improvement in air quality (by pollutant) ▪ % change in GHG ▪ % change per 100,000 PAX	▪ CO2 emissions from LAX buildings: 9,339 MT ▪ FlyAway passengers: 1,576,945 ▪ CO2 rideshare emission reduction: 5,700 MT **LAX Alternate Fuel Vehicles 2014** 29, 22, 27, 9, 410 CNG, Electric, Propane, BioFuel, Alternate Fuel

Potential Measurements	Sample LAWA Environmental Performance Indicators
Materials and Resources	
Goal: LAWA conserves materials and natural resources and uses renewable materials whenever possible.	
▪ % solid waste diverted through recycling ▪ % tenant recycling – LAX ▪ % tenant recycling – VNY ▪ % waste stays in LA County	▪ Solid waste generated by LAWA and all tenants that is recycled: 50% ▪ Recycled cardboard: 8,206 tons ▪ Municipal solid waste sent to landfill/incinerator: 38,133 tons ▪ Recycled municipal solid waste at LAX, excluding construction concrete: 25,459 tons ▪ Recycled construction and demolition debris: 13,282 tons ▪ Diverted hazardous waste: 285.7 tons ▪ Green custodial supplies: LAX 460 items 
Green Construction	
Goal: LAWA uses best practices of green construction.	
▪ % of total square footage LEED certified buildings	▪ TBIT: LEED Gold certification ▪ Central Utility Plant (CUP): Leed Gold certification ▪ Square Feet Permeable Paving: 42,957 To be gathered: ▪ # square footage LEED certified buildings ▪ # LEED certified buildings ▪ # square footage of LAGBC Tier 1 projects ▪ # LAGBC Tier 1 Projects
Natural Resources	
Goal: LAWA conserves natural resources where feasible.	

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Potential Measurements	Sample LAWA Environmental Performance Indicators
▪ % storm water capture LAX ▪ # (temperature) heat from LAX asphalt ▪ # natural gas consumption per cubic feet ▪ # electricity used (KW hours) ▪ % solid waste recycled, tons ▪ % change for each from last month, this month last year ▪ % change per 100,000 PAX ▪ # acres preserved habitat (El Segundo blue butterfly) ▪ Water (see water measurements above)	▪ Acres El Segundo Blue Butterfly Habitat conserved: 202.8 ▪ Average number of El Segundo Blue Butterflies: 26,881 ▪ Acacia & Ficus trees donated to zoo program: 130 ▪ Tarplants: 138 ▪ Dune volunteers: 272

Balanced Scorecard – CSR for Environmental Responsibility

KH identified more than 350 metrics for Environmental Responsibility, listed in Appendix D. The next pages display the Environmental Responsibility BSC prototype at LAWA. This BSC reflects the top 50+ metrics for Environmental Responsibility, reflecting data available at LAWA and the metrics that LAWA should begin to monitor. As LAWA becomes more sophisticated in performance measurement management, it will build on and expand on this BSC prototype.

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Los Angeles World Airports (LAWA)
Industrial, Economic, & Administrative (IEA) Survey
Balanced Scorecard: CSR - ENVIRONMENTAL RESPONSIBILITY

#	CSR Measurement Description	FY 2013-2014 or CY 2014	Target 2020	Freq
2	**ENVIRONMENTAL RESPONSIBILITY**			
2.1	**Green Buying**			
2.1.1	$ consumable products purchased that meet IFMA environmental standards or equivalent	NA		Q
2.1.2	% consumable building supplies purchased that meet IFMA environmental standards or equivalent	NA		Q
2.1.3	# environmental compliance audits completed	NA		A
2.2	**Water Conservation**			
2.2.1	# gallons total Potable Water consumed LAX	501,786,824		M
2.2.2	# gallons total Potable Water consumed VNY	15,526,236		M
2.2.3	# gallons Reclaimed water consumed LAX	57,411,992		M
2.2.4	# acres Drought tolerant area LAX	1.2		A
2.2.5	# Landscaped area using reclaimed water LAX	51		A
2.3	**Noise**			
2.3.1	# sound insulation completed Total LAWA	2,211		A
2.3.2	$ awarded for Sound Insulation Grant (SIG) program	$ 90,345,000		Q
2.3.3	# LAX noise complaints/10,000 departures	NA	0	AH
2.3.4	# noise complaints LAX	NA		M
2.3.5	# noise complaints VNY	NA		M
2.4	**Energy Stewardship**			
2.4.1	# Total EV charging stations	47		A
2.4.2	# kWh Green power purchase	20,917,626		Q
2.4.3	$ Green power purchase	$ 627,529		Q
2.4.4	% Green power purchase total electricity	9.8%		Q
2.4.5	# sf Building automation systems at admin & safety base retrofit	64,500		A
2.4.6	% retrofit to LED 851 taxiway edge lights; 20% of 344 in-pavement runway guard lights; and,	35		A
2.4.7	% retrofit to LED 344 in pavement runway guard lights;	20		A
2.4.8	% retrofit to LED of 192 airfield signs.	5		A
2.5	**Greenhouse Gas/Vehicle Miles Traveled (GHG/VMT)**			
2.5.1	# average vehicle minutes curb dwell time X average greenhouse gas emissions per car per minute	NA		Q
2.5.2	# GHG Buildings LAWA	NA	Reduction of 45% by 2025; 60% by 2035; 80% by 2050 from 1990 levels. 55% from 2010 levels.	A
2.5.3	# GHG Buildings LAX	NA	See target above	A

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Los Angeles World Airports (LAWA)
Industrial, Economic, & Administrative (IEA) Survey
Balanced Scorecard: CSR - ENVIRONMENTAL RESPONSIBILITY

#	CSR Measurement Description	FY 2013-2014 or CY 2014	Target 2020	Freq
2.5.4	# GHG Buildings ONT	NA	See target above	A
2.5.5	# GHG Buildings VNY	NA	See target above	A
2.6	**Air Quality**			
2.6.1	# LAWA autos	544		A
2.6.2	# LAWA buses	81		A
2.6.3	# LAWA pickups	243		A
2.6.4	# alternate fuel vehicle total-LAWA	599		A
2.6.5	% total fleet using alternative fuels-LAWA	59%		A
2.6.6	# LAX Single Occupancy Vehicle (SOV) trips per day	825		SA
2.6.7	# alternate fuel VNY vehicles	18		A
2.6.8	# carbon dioxide LAX emissions - stationary sources (buildings) MTCO2	9,339		A
2.6.9	# Flyway average daily ridership	4,320		M
2.6.10	# FlyAway emissions reduced per day	38,758		D
2.7	**Materials & Resources**			
2.7.1	% total solid waste generated by LAWA and all tenants that is recycled (minimum of 50% set)	50%	70%	Q
2.7.2	# tons plastic recycled LAX	859		A
2.7.3	# tons glass recycled LAX	11		A
2.7.4	# tons metal recycled LAX	454		A
2.7.5	% Total Waste Diversion Rate	67%		A
2.7.6	# Municipal Solid Waste Total tons to landfill/incinerator LAX	38,133		A
2.7.7	# tons diverted Hazardous Waste, including Universal waste	285.7		A
2.7.8	# tons recycled Construction and demolition debris	13,282		A
2.7.9	# tons recycled Master Plan Construction Concrete Recycling LAX (includes rock, concrete, and asphalt)	155,383		A
2.8	**Green Construction**			
2.8.1	# LEED certified buildings (CUP)	1		A
2.8.2	% total square footage LEED certified buildings	NA		A
2.8.3	# sf area permeable pavement LAX	42,957		A
2.9	**Natural Resources**			
2.9.1	# acres El Segundo Blue Butterfly Habitat conserved (Buckwheat)	202.8		A
2.9.2	% storm water capture LAWA	NA		A
2.9.3	% storm water capture LAX	NA		A
2.10	**Awards**			
2.10.1	# LA Green Business Certification awards non-LAWA	2		A
2.10.2	# LA Green Business Certification awards LAWA	3		A
2.11	**Reports & Clearances**			
2.11.1	# Level 3 Airport Carbon Accreditation Achieved	In Progress		A

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STAKEHOLDER IMPACT

Chapter I.3 discusses the goals for LAWA's community impact with its neighbors, Los Angeles, and the Southern California region. Table II.2c shows the linkages between community impact goals and potential measurements.

Table II.2c: Sample Community Impact Goals and Potential Measurements

Community Impact Goals	Potential Measurements
Local Communities and Neighbors	
LAWA maintains good relationships with its local neighbors by mitigating and minimizing the environmental impact (noise, air quality, and traffic) on local communities. Simultaneously, it contributes to the economy of its neighbors. LAWA plans inclusively with its local neighbors.	▪ Economic and fiscal impact measurements (see Table II.2a) ▪ Environmental responsibility measurements (see Table II.2b) ▪ % local residents' satisfaction ratings on community surveys
City of Los Angeles's Image	
LAWA is an asset to the City of Los Angeles by welcoming visitors from the U.S. and around the world to a modern, efficiently-run airport.	▪ Economic and fiscal impact measurements (see Table II.2a) ▪ Environmental responsibility measurements (see Table II.2b) ▪ Governmental relations goals (see Table II.2d) ▪ # international passengers ▪ # domestic passengers ▪ % guest satisfaction ratings (ACI/ASQ survey, discussed in Chapter II.3 on "BSC – LAX Guest Experience")
Southern California Region (County of Los Angeles, public agencies)	
LAWA cooperates with County of Los Angeles departments and other agencies, such as LA Metro, to improve the value of the airports as Southern California assets.	▪ Economic and fiscal impact measurements (see Table II.2a) ▪ Environmental responsibility measurements (see Table II.2b) ▪ Governmental relations goals (see Table II.2d) ▪ County of Los Angeles Department of Regional Planning (DRP) satisfaction with LAWA's support of local plans ▪ Successful completion of LAMP ▪ Successful implementation of development around LAMP project elements

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GOVERNMENT RELATIONS

Chapter I.3 discusses the goals for LAWA's governmental relations. Table II.2d aligns these goals with suggested measurements.

Table II.2d: Sample Governmental Relations Goals and Potential Measurements

Governmental Relations Goals	Potential Measurements
Supporting LA City's Interests	
LAWA supports the fiscal well-being of LA City by operating fiscally sound, welcoming and safe airports that contribute to the economic growth of the region through jobs, tax revenue, trade, and other factors. LAWA furthers the successful implementation of LA City goals, including the Mayor's Sustainable City pLAn.	▪ Economic and fiscal impact measurements (see Table II.2a) ▪ Environmental responsibility measurements (see Table II.2b) ▪ % Mayor's goals and pLAn initiatives adopted/reflected at LAWA ▪ % City goals adopted/reflected at LAWA
Supporting LAWA's Interests	
LAWA advances its informed interests, as defined by its mission and validated by BOAC, with government and public agencies at all levels, as well as with industry, unions, and the public.	▪ Report on activities of Governmental Affairs (GA) office ▪ $ spent on Federal, State, and local activities ▪ $ spent on GA lobbying and advocacy ▪ Report on activities of GA office ▪ $ spent on GA lobbying and advocacy ▪ $ legal defense ▪ $ spent for suits ▪ $ saved by winning suits ▪ % success in lawsuits
Mechanisms and Systems	
LAWA ensures that systems are in place to advocate for its mission as it relates to governmental action at all levels. Advocacy mechanisms are assessed, on the basis of the level of support LAWA garners for its initiatives.	▪ Survey of LAWA management regarding successful advocacy channels and mechanism
Communication	
LAWA Government Relations communicates in a timely fashion to relevant entities inside and outside of the organization on matters that could impact LAWA. This process is supported within LAWA by swift and accurate communication of needed information to Government Relations.	▪ # separate issues reported outside LAWA ▪ # separate issues reported inside LAWA ▪ % led to legal action ▪ % satisfaction within LAWA timeliness and substance of reporting ▪ # separate issue reported to GA ▪ % satisfaction of GA with timeliness and substance of reporting ▪ % satisfaction of Joint Administrators with timeliness and substance of reporting ▪ % satisfaction of City officials with timeliness and substance of reporting

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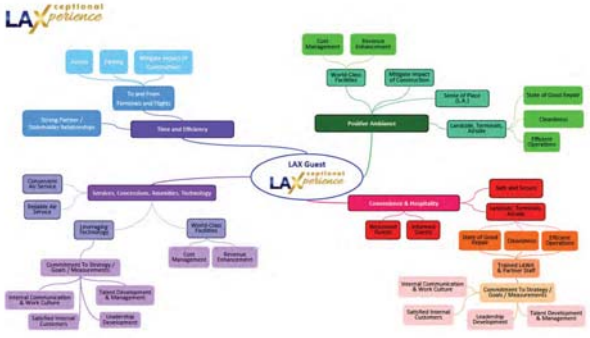
II.3: BSC – LAX GUEST EXPERIENCE

OVERVIEW

This chapter builds on the concepts outlined in "LAX Guest Experience" in Chapter I.4. LAWA developed the following "mind map" diagram to depict the many of the factors that contribute to the guest experience.

LAWA Guest Experience



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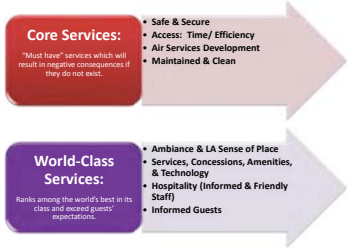
BSC Guest Experience Framework

To simplify the "Mind Map," KH focused on two key aspects of the Guest Experience initiative, as discussed in Chapter I.4 on "LAX Guest Experience:"

- ***Core services.*** Core services are necessary for operating an airport. They are "must have" services, which will result in negative consequences if they do not exist or are done poorly.
- ***World-class services.*** World-class services are value-added services that make an airport stand out. Such world-class services also position airports to rank among the world's best in its class and exceed guests' expectations.

Proposed LAWA Guest Experience Priorities



ACI Survey

LAWA's planned survey will provide greater insights into the guest experience at LAX. As also discussed in Chapter I.4, LAWA's Guest Experience Working Group has retained Airport Council International--North (ACI-NA) to conduct a guest survey in early 2016, which will provide greater insights into LAX's performance. This ACI/ASQ survey will reach guests actually using LAX; the results will be complemented with a separate LAWA contract with another survey company (Unison) early next year.

LAWA Collaboration with Partners

LAWA lacks access to data that affect the guest experience but are maintained and monitored by its partners, such as the airlines, TSA, etc., KH has color-coded those metrics:

- Private companies (airlines, private shuttle services, private parking lots, concessionaires, etc.) in peach
- Other governmental agencies (TSA, CBP, FAA, CBP) in yellow

As an example of these data challenges:

- In recent years, the LAX Airline Connection and the remote lot shuttles have been under one operator, but the ground transportation system cannot distinguish the routes since the operator rotates the fleet among the various routes. The reliability of data also has some limitations because vehicle transponders do not always work.
- LAWA has raw data on rental car, parking, and hotel shuttles that it can analyze for vehicle

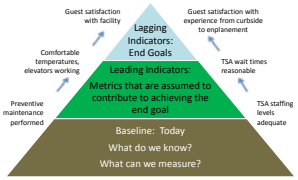
headways, but it would take numerous, dedicated days to distill the information to track peak hours annually. LAWA can distill the data to prepare snapshots of specific peak periods/peak days if needed.

Leading and Lagging Indicators

Finding. Many improvements in aggregate will improve guest experiences and ratings.

Developing strategic measurements for the guest experience is a new way of thinking at LAWA and consists of both leading and lagging indicators. Outcomes or "lagging" indicators are driven by daily efforts and activities that produce supportive results, measured by "leading" indicators. For example, the lagging indicator of guest satisfaction is influenced by such leading indicators as preventive maintenance of elevators and escalators, frequency of terminal custodial inspections, great concessions that are open and accessible, etc.

Examples of Guest Experience Leading and Lagging Indicators



There are some changes LAWA can make in the short term that in aggregate will have an overall positive impact on the guest experience. For example, improved preventive maintenance and working elevators help guests to be satisfied with the facilities. To improve guest satisfaction with efficient movement through the terminals to their gates requires many components. Airline ticket counters need to efficiently check in passengers and their baggage. TSA requires sufficient staffing and equipment to achieve acceptable wait times. Restrooms need to be clean and operational with minimal lines and wait times. These are just a few of the components that can affect efficient movement through the terminals.

It will likely take many improvements in leading indicators (LAWA's infrastructure, operations, and people/work culture) to achieve higher levels of satisfaction with the lagging indicator – overall guest satisfaction.

CORE SERVICES

Finding. LAWA's efforts to improve some of its leading indicators for core services, in aggregate, will improve the guest experience.

Core services are those fundamental airport operations that must be done well, such as safe & secure, easy access, and maintained & clean facilities. Core services also entail an expectation that air services from an airport offer convenient flight schedules that go where travelers want to fly.

As already mentioned, improvement in the overall guest experience requires enhancements in many areas that in combination result in better outcomes. KH worked with LAWA's Guest Experience Working Group to identify these assumed linkages and develop metrics for those that were deemed to be most critical. Table II.3a displays examples of leading and lagging indicators that might be helpful in ensuring LAX delivers its core services effectively and efficiently.

Table II.3a: Sample Lagging and Leading Indicators for Core Services

Focus	Potential "Lagging" Guest Goals or Measures	Potential "Leading" Measures: People, Operations, Culture
Priority area for continuous improvements	*The lagging indicator is the ultimate goal or measurement for a desired strategic outcome.*	*To achieve desired strategic outcomes requires many tactical initiatives that together will help achieve the lagging indicator(s).*
SAFE AND SECURE		
Personal Safety	Travelers and guests, using LAWA's airports, have personal safety in and around all LAWA facilities, including the airport environments, in the LAX Central Terminal Area, at VNY, in the terminals, and on airplanes.	**Serious crimes** against persons reported at LAX arrayed by location and type of crime (homicide, rape, robbery, felony assault, felony larceny, arson) ▪ # criminal complaints - terminals ▪ # criminal complaints - parking **Traffic and pedestrian safety** ▪ # traffic accidents[6] ▪ # pedestrian-involved accidents[7] **Visible law enforcement presence** ▪ # posts staffed ▪ # uniformed officers per 100,000 PAX **Safe facilities** ▪ # reported injuries, by terminal **Emergency preparedness** ▪ # emergency response drills, by terminal **Air safety** (which is not under LAWA's direct jurisdiction) ▪ # incidents on planes when LAX is called in to assist Federal law enforcement
Property Security	Travelers and guests, using LAWA's airports, have security of property in and around all LAWA facilities, including the airport environment,	▪ # reported major property thefts, by location ▪ # reported incidents of vandalism, by location

6 Available through LAPD's West Traffic Division

7 Available through LAPD's West Traffic Division

Focus	Potential "Lagging" Guest Goals or Measures	Potential "Leading" Measures: People, Operations, Culture
	in the LAX Central Terminal Area, at VNY, in the terminals, and on airplanes.	
ACCESS: TIME AND EFFICIENCY		
Efficient Access - Ground Transport		
Transport, Roadway, and Parking Sufficiency	# minutes CTA transit time	▪ # vehicles entering CTA ▪ # maximum minutes to complete CTA orbit – upper ▪ # maximum minutes to complete CTA orbit - Lower ▪ # average minutes from remote commercial parking operations (e.g., bus terminal by Lot C) to terminal during peak times ▪ # roadway area shutdown requests approved by calm ▪ # lane closures exceeding 10 minutes in CTA ▪ # vehicles in CTA at peak times ▪ # FlyAway passengers by route ▪ # passengers using public transit, taxis, limo services, or ride-sharing (Uber, Lyft) to /from LAX per 1,000 PAX
	# complaints about delays/missed flights due to parking availability, entry delays, or parking lot-CTA transport problems	▪ # days where parking lots are closed at least once ▪ # parking lots closed at least once during a month ▪ # lots >90% full/day
Information and Communications	# passengers accessing roadway information via twitter, applications, or web-hits	▪ # minutes (length of time) from identification of issue (e.g., upper level congestion, parking lot closures) to notification in each media channel ▪ # daily tweets on roadway congestion issued by Law Enforcement & Homeland Security Division ▪ # bulletins released to media regarding traffic conditions ▪ # notification channels regarding traffic issues within the CTA
Efficient Access to and from Planes		
TSA Wait Times	# incidents of passenger wait times exceeding 20 minutes	▪ # TSA lanes staffed at peak hours
Rapid Plane-to-Roadside Arrival	# satisfaction ratings with time it takes to deplane and reach the curb	▪ # international passengers arriving at remote gates ▪ # domestic passengers arriving at remote gates ▪ # minutes baggage carousel wait times

Focus	Potential "Lagging" Guest Goals or Measures	Potential "Leading" Measures: People, Operations, Culture
Customs/ Immigration Wait Times	#/% of peak hours where incoming American passengers wait fewer than 15 minutes and more than 30 minutes to transit immigration #/% of peak hours where incoming international passengers wait fewer than 15 minutes and more than 30 minutes to transit immigration	▪ # Immigration lanes staffed at peak hours
AIRPORT SERVICES DEVELOPMENT		
Convenient and Reliable Air Services for Desired Destinations	% passengers satisfied with airline schedule (available flights, times, city pairs, etc.)	▪ # nonstop flights ▪ # international city destinations ▪ % load factor
MAINTAINED AND CLEAN		
Well-Maintained Terminals and Parking Structures		
All Systems Operational	# hours down time of any major system: HVAC, elevators/escalator; etc.	▪ % recommended preventative maintenance scheduled by major system ▪ # scheduled maintenance work orders deferred or delayed ▪ # power outages ▪ # minutes duration of power outages ▪ # power surges
Rapid Response	# average time between reported outage and completed repair	▪ # incidents for HVAC, elevators, escalators by terminal ▪ # custodial workers per terminal ▪ # square feet per custodial worker, by terminal
Consistency	# satisfaction ratings on cleanliness and maintenance # terminals maintained by airlines that meet LAWA standards	
Clean Terminals and Parking Structures		
Continuous Monitoring	# cleanliness/terminal facilities complaints in LAWA maintained terminals	▪ # vacancies in custodial staff positions
Rapid Response	# elapsed minutes between reported janitorial issue and clean facility	
Consistency	# cleanliness/terminal facilities complaints in airline-maintained terminals	

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Although the Guest Experience Working Group agreed to these measurements as optimal for evaluating the core services' impact on the guest experiences, ***LAWA lacks some data internally that would be useful to assess and monitor guest experiences.*** The reasons and causes vary, discussed next.

Core Service – Safe and Secure

Finding. Airport law enforcement reports crimes through the FBI's Uniform Crime Reporting (UCR) program

Airports must be foremost safe and secure. The Law Enforcement & Homeland Security Division is concerned with maintaining confidentiality of certain information, particularly in light of potential misuse by terrorists or others that could endanger safety and security at the airport.

- Because of these valid concerns of potential airport threats, KH has compiled a list of goals and potential measurements that might be considered in the future that would likely not pose a risk to the airports.
- In some instances, KH has prepared aggregated data to indicate adequate coverage, but have avoided providing details that could be used inappropriately by others.
- In other instances, LAWA opted not to share certain data on injuries because of the City Attorney's need to manage those cases confidentially.

The Law Enforcement & Homeland Security Division uses the FBI's Uniform Crime Reporting (UCR) program to report crimes. Part I Crime offenses are more serious and violent crimes against people and property, such as criminal homicide , forcible rape, robbery, aggravated assault, burglary (breaking or entering), larceny, motor vehicle theft, and arson.

The number of Part 1 Crimes per 1 Million Annual Passenger (MAP) is a reasonable measure of personal safety at LAX, as discussed in Chapter I.4. Table II.3b displays LAX's Part 1 Crimes between 2013 and 2015.

Table I.3b: LAX Part 1 Crimes (2013 through 2015)

LAX Part 1 Crimes	2013	2014	2015
Aggravated Assault	10	7	3
Homicide	1	0	0
Rape	1	0	0
Robbery	2	2	0
Total Violent Crimes	**14**	**9**	**3**
Burglary	11	8	10
Theft (includes theft from person, petty theft, and grand theft)	461	473	499
Auto Theft	7	5	10

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LAX Part 1 Crimes	2013	2014	2015
Burglary of Motor Vehicle (forcible entry to locked vehicle)	27	14	25
Theft from Motor Vehicle (theft of property from unsecured vehicle)	21	23	36
Total Property Crimes	**527**	**523**	**580**
TOTAL PART 1 CRIMES	**541**	**532**	**583**
Total Million Annual Passengers (MAP) (millions)	66.7	70.7	74.9
Part 1 Crimes Per MAP (1 million passengers)	8.1	7.5	7.8

Note: LAPD changed its reporting definitions for crimes in 2015 and LAXPD followed suit, which slightly raised the number of reported Part 1 Crimes this last year.

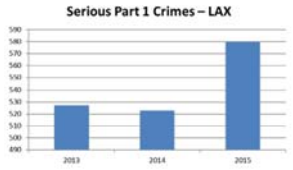
Overall, The total number of violent crimes (aggravated assault, homicide, rape, and robbery) has steadily declined from 14 in CY 2013, to 9 in CY 2014, to 3 in CY 2015 (year-end estimate). Most of the crimes are property crimes (e.g., burglary, theft, auto theft), which range between 523 and 580 per year for the last 3 years. When analyzing the frequency of Part 1 Crimes, KH calculated ratios to account for passenger traffic increases. LAX averages between 7.5 and 8.1 Part 1 Crimes per 1 Million Annual Passengers (MAP) per year (2013, 2014, and 2015). If the number of badged workers and meeters and greeters were included, the ratio would drop further.

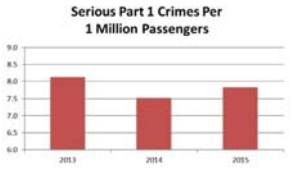
Table II.3c: Proposed Safety & Security Goals and Part I Crime Trends

Safety & Security Performance

Goal 1 – Personal Safety: Travelers and guests, using LAWA's airports, are and feel safe in and around all LAWA facilities, including parking lots and access routes, in the terminals, aboard aircraft, in the LAX Central Terminal Area, and at VNY.

Goal 2 – Property security: Travelers and guests, using LAWA's airports, have confidence that their property is secure in and around all LAWA facilities, including parking lots and access routes, in the terminals, aboard aircraft, in the LAX Central Terminal Area, and at VNY.





In addition, the Law Enforcement & Homeland Security Division produces regular patrol reports, including contact reports describing individuals who may present crime or security threats, which are

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distributed to all patrol officers. LAWA Law Enforcement & Homeland Security also collaborates actively with other agencies to assist LAXPD in deploying its resources most effectively.

Core Service – Access: Time and Efficiency

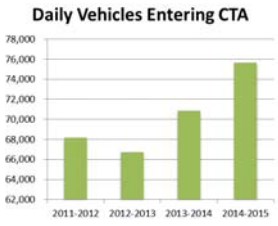
Finding. Access to LAX will continue to be a challenge in the years ahead.

Guests have a variety of means for accessing LAX today: cars, buses, taxis, FlyAway buses, Airline Connection buses, and most recently LYFT and UBER. LAWA offers FlyAway bus services at four locations.

The number of vehicles entering the Central Terminal Area (CTA) within LAX has been steadily increasing in the last few years as the number of passengers has increased. Accessing LAX has been a long-standing problem, which will only be made worse in the coming years during the next phase of construction activities. The new LA Metro Crenshaw/LAX station and LAWA's Automated People Mover (APM) are both initiatives to improve access to LAX. Ironically, especially during the construction period, building the APM connection may make access to LAX noticeably more difficult. Chapter I.4 on "LAX Guest Experience" emphasized the importance of LAWA needing to proactively manage CTA congestion during and after construction (Recommendation I.4.3).

LAWA lacks some of the data that would be useful regarding CTA congestion, such as minutes it takes to reach specific parking lots or terminals once entering the CTA, the number of people using Airline Connection buses, indicators for automatic re-rerouting of cars to upper or lower CTA roadways during peak periods, etc.

Table II.3d: Proposed LAX Access Goals and Performance

Sample Performance Measurements	LAX Access (Time and Efficiency) Performance: CTA
Goal: Efficient Access - Ground Transport (i.e., Quick, Efficient, and Easty Flow of Transportation and Roadways through the CTA, Combined with Information and Communications)	
▪ # daily vehicles entering CTA ▪ # minutes to park, by parking lot, once in the CTA ▪ # minutes to terminal, by terminal, once in the CTA ▪ # Airline Connection bus headways ▪ # PAX using Airline Connection Buses ▪ # PAX using taxis ▪ # minutes PAX wait for taxis, by terminal ▪ # PAX using LYFT, UBER, or other private car services	

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Sample Performance Measurements	LAX Access (Time and Efficiency) Performance: CTA
▪ # FlyAway PAX, by route and time of day ▪ $ FlyAway net revenue, by route ▪ % satisfaction rating at 4 or 5 (on a 5-point scale) ▪ % FlyAway on schedule	FlyAway operating according to schedule: 95% of the time

Finding. Parking operations lacked data that would be useful for evaluating and improving the guest experience.

Parking capacity within LAX's CTA is constrained, as indicated by the number and length of parking lots closures. LAWA does not have 21st-century, parking lot management technology that enables guests to self-pay for parking, indicates the number of available parking spaces by level, or uses red/green light indicators to pinpoint available parking spaces.

Table II.3e Proposed LAX Parking Lot Goals and Performance

Sample Performance Measurements	LAX Parking Lot Performance
Goal: Efficient Access - Ground Transport (i.e., Quick, Efficient, and Easty Flow into/out of Parking Structures, Combined with Parking Sufficiency and Information and Communications)	
▪ # parking lot closures, by lot ▪ # average minutes per closure ▪ # days where parking lots are closed at least once ▪ # parking lots closed at least once during a month ▪ # lots >90% full/day # spaces available, by lot and by floor ▪ $ generate by lot per parking space	

LAWA is in the process of issuing a Request for Proposal (RFP) for new parking technology that, once acquired and implemented, will allow LAWA to track many of the performance measurements identified in the BSC.

KH

Finding. Time efficient processing of passengers once within the terminals warrants monitoring.

Once guests maneuver the CTA and are in the terminal, their next quest is to navigate the airline ticket counters (operated by the individual airlines) and go through TSA check points. International passengers also must clear Customs Border Patrol (CBP) when returning to the United States.

LAWA does not control these operations, which are all performed by either private companies or other governmental agencies. Nonetheless, these services are critical to guest satisfaction and the overall perception of the quality of the airport.

According to Condé Nast *Traveler* magazine's analysis of TSA statistics,[8] TSA screened 708 million passengers at U.S. airports in 2015 (a 5.8% increase over 2014). TSA's reported national average is that only 2% of the passengers had to wait more than 20 minutes to clear airport security. This average is skewed because 44% of the passengers are screened through expedited lines and 2 million passengers have signed up for TSA pre-check ([redacted]); other passengers obtain entry into the TSA pre-check program as privileged given them by their airlines.

In J.D. Power's 2015 North American Airport survey, travelers' perceptions of satisfaction levels with security had improved by 66% since its last survey in 2010; however, those passengers without special privileges had lower satisfaction ratings. Table II.3f lists the "Best Wait Times at Large U.S. Airports."

Table II.3f: Wait Times at Large U.S. Airports

U.S. Large Airport	TSA Wait Times (Minutes)
Best Wait Times	
1. Tampa	11.4
2. Fort Lauderdale	12.3
3. San Diego	12.5
4. Detroit	12.6
5. Portland	12.8
Worst Wait Times	
1. JFK	16.8
2. Newark	16.5
3. LAX	16.0
4. Philadelphia	15.6 (tie)
5. Seattle/Tacoma	15.6 (tie)
6. Chicago O'Hare	15.6
7. LaGuardia	15.6
8. Washington Dulles	15.5

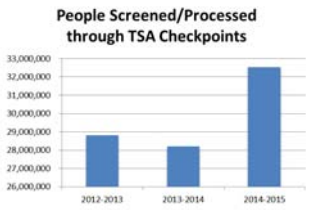
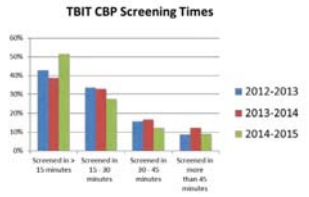
LAX's TSA wait time is among the top 3 worst wait times among U.S. airports. Mid-sized airports tend to have shorter wait times. TSA no longer posts average wait times, by airport; however, it offers a crowd-

8 "The Best and Worst Checkpoints in the U.S.," by Barbara Peterson, *Traveler,* Condé Nast, January 28, 2016. http://www.cntraveler.com/stories/2016-01-28/the-best-and-worst-tsa-checkpoints-in-the-us

sourced app where passengers can post how long it took them to complete security. Fewer passengers either know of the app or are willing to take the time to use the app because it is not heavily used.

Table II.3g displays metrics available for TSA and CBP at LAX.

Table II.3g: Proposed LAX Terminal Processing Goals and Performance

Sample Performance Measurements	LAX Access (Time and Efficiency) Performance: Terminals
Goal: Efficient Access to and from Planes (i.e., Quick, Efficient, and Efficient Flow Through Terminals (TSA Wait Times, Rapid Plane-to-Roadside Arrival, Customs/ Immigration Wait Times))	
Transportation Security Administration (TSA), U.S. Department of Homeland Security ▪ # people screened/processed through TSA check points ▪ # average minutes for screening PAX through TSA check points ▪ # times average wait time exceeded 20 minutes for TSA check points	
Customs Border Patrol (CBP), U.S. Department of Homeland Security ▪ # people screened/processed through CBP ▪ # average minutes for screening PAX through CBP ▪ # times average wait time exceeded 30 minutes for CBP screening	
▪ # minutes of walk-time once screened, by terminal and by gate ▪ # flights and PAX serviced at remote gates ▪ # minutes from blocked aircraft to passenger exiting terminal	Note: These data are not available at this time for LAX.

Core Service – Air Services

Finding. LAWA has been expanding its non-stop destinations internationally.

As discussed in Chapter I.1 under "Strengths and Accomplishments," LAWA has added 17 non-stop international destinations and 5 new airlines at LAX in the last 2 years. As discussed further in Chapter II.3 on "LAX Guest Experience" and Chapter II.4 on "Financial Performance," the increased number of passengers is an indicator that LAX is a well-used airport, providing air services to destinations that some 35.1 million enplaned passengers wanted to go to last year. For the airlines, load factors are also critical indicators.

Table II.3h: Proposed LAX Air Services Development Goals and Performance

Sample Performance Measurements	LAX Air Services Performance
Goal: Convenient and Reliable Air Services for Desired Destinations	
▪ # non-stop cities – domestic ▪ # non-stop cities – international ▪ # non-stop countries served ▪ # airlines operating out of LAX ▪ % load factor, by non-stop city ▪ % PAX satisfied with airline schedule (available flights, times, city pairs, etc.)	
▪ # new non-stop cities – domestic ▪ # new non-stop cities – international ▪ # new non-stop countries served ▪ # new airlines operating out of LAX ▪ # non-stop cities no longer served – domestic ▪ # non-stop cities no longer served – international	

Core Service – Clean & Maintained

Finding. LAWA's new Maximo system will enable Maintenance to collect and identify preventive and corrective maintenance trends, but will not track custodial data.

At the time of the 2008 IEA Survey, Maintenance was tracking its work orders and requirements manually. In 2010, Maintenance implemented Issue Track, its first automated service request system. In 2014, it upgraded to Maximo and will now have more robust capability to track service requests (emergency versus regular work orders) and other information. With Maximo, the way information is classified has changed, so presenting historical data is less useful.

At LAX, the guest experience varies based on what terminal(s) the guests use. Some of the terminals are maintained and cleaned mostly by LAWA and others mostly by the airlines or, more specifically, contractors who work for the airlines. In 2015, the most maintenance incidents (HVAC, elevators, and escalators) were in TBIT.

It should be noted that work orders – which is what KH is measuring here – are required to reverse escalators at TBIT. This situation is not a service problem, but rather reflects LAWA's efforts to meet guest needs. It happens frequently, depending on the direction of traffic, and LAWA believes that the high number of work orders for TBIT is related to this requirement. As the metric is introduced, requests generated only to reverse and escalator will need to be "teased out" of the overall data set if it is to be used with precision.

During the four heavy travel periods each year, the Facilities Maintenance & Utilities Group (FMUG) has every shift report on conveyances out of service and anticipated time to return to service for terminal operations.[9]

9 FMUG reports that level of working elevators is fairly consistent during a busy month. In December 2015, a typical shift reported that 3.3% of LAX's total terminal elevators and 2.8% of LAX's total terminal vertical conveyances were out of service. These percentages do not include conveyances that can be returned, or were returned, to service within 45 minutes.

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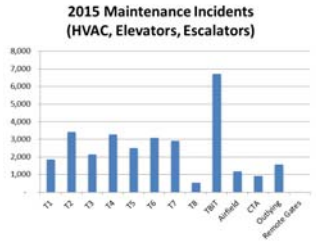
Table II.3i: Proposed LAX Maintenance and Cleanliness Goals and Performance

Sample Performance Measurements	LAX Clean & Maintained Performance
Goal: Well-Maintained and Clean Terminals and Parking Structures (All Systems Operational, Rapid Response, Consistency, and Continuous Monitoring)	
In going forward, LAWA will need to also collect information (at a minimum) on: ▪ # incidents for HVAC, elevators, escalators by terminal ▪ # hours down time of any major system: HVAC, elevators/escalator; etc. ▪ % preventive maintenance completed for major systems ▪ % recommended preventive maintenance scheduled by major system ▪ # scheduled maintenance work orders deferred or delayed ▪ # average time between reported outage and completed repair ▪ # guest satisfaction ratings on maintenance ▪ # terminals maintained by airlines that meet LAWA standards	
▪ # cleanliness/terminal facilities complaints in LAWA maintained terminals ▪ # elapsed minutes between reported janitorial issue and clean facility ▪ # terminals cleaned by airlines that meet LAWA standards ▪ # guest satisfaction ratings on cleanliness ▪ # cleanliness/terminal facilities complaints in airline-maintained terminals ▪ # custodial workers per terminal ▪ # square feet per custodial worker, by terminal	Note: These data are not tracked through a data-base management system so are not readily available for LAX.

KH

Sample Performance Measurements	LAX Clean & Maintained Performance
Note: The number of Infoline complaints regarding cleanliness and the facilities in LAWA-maintained terminals (T1, T2, T3, and TBIT) has been erratic but under 20 complaints per year ▪ # complaints regarding LAWA-maintained terminals (including Infoline and sources other than Infoline) ▪ # complaints for all terminals (including Infoline and sources other than Infoline) ▪ # rating on ACI-ASQ survey regarding guest satisfaction with cleanliness and maintenance	

Balanced Scorecard – Guest Experience: Core Services

In total, KH and the Guest Experience Working Group identified more than 500 metrics for Guest Experiences, listed in Appendix D. The next pages display the Guest Experience BSC prototype for core services at LAX. This BSC reflects the top 60+ metrics for core services, reflecting data available at LAWA and the metrics that LAX should begin to monitor. As LAWA becomes more sophisticated in performance measurement management, it will build on and expand on this BSC prototype.

Los Angeles World Airports (LAWA)
Industrial, Economic, & Administrative (IEA) Survey
Balanced Scorecard: GUEST EXPERIENCE - Core Services

#	Measurement Label	Measurement Description	2011-2012	2012-2013	2013-2014	2014-2015	Target 2020	Freq
1	**CORE SERVICES**							
1.1	**ACCESS - TIME/EFFICIENCY**							
1.1.1	**Vehicular**							
1.1.11	CTA - # Vehicles/Day	# vehicles entering the CTA each day	68,198	66,774	70,870	75,690		Q
1.1.12	CTA - UL Drive Time	# mins to complete CTA orbit - Upper	NA	NA	NA	NA	12	Q
1.1.13	CTA - LL Drive Time	# mins to complete CTA orbit - Lower	NA	NA	NA	NA	12	Q
1.1.19	Shuttles - Throughput - Total	# total shuttles entering CTA (CY)	269,614	447,569	460,591	462,312		Q
1.1.13	Shuttles - Throughput - Airline Connection Buses	# total airline connection buses entering CTA (CY)	269,614	447,569	460,591	462,312		D
1.1.26	Parking - Closures	# closures - Lot 3	NA	NA	NA	104		M
1.1.28	Parking - Closures	# closures - Lot 4	NA	NA	NA	284		M
1.1.30	Parking - Closures	# closures - Lot 5	NA	NA	NA	48		M
1.1.32	Parking - Closures	# closures - Lot 6	NA	NA	NA	58		M
1.1.40	Parking Cell Phone Lot	# using cell phone lot	NA	NA	NA	NA		Q
1.1.47	ADA Vans - PAX	# disabled PAX served by ADA vans	NA	NA	NA	33,105		M
1.1.2	**Pedestrian**							
1.1.2.21	TSA PAX Volumes	# people screened/processed through TSA checkpoints - total LAX	NA	30,050,791	31,760,308	32,524,404	NA	M
1.1.2.33	TSA PAX Clearance Rate	# PAX wait times >20 min - total LAX	NA	58	43	NA	TSA Determined	M
1.1.2.42	CBP PAX Clearance Time	# average minutes for PAX to clear CBP checkpoints	NA	NA	NA	NA	18	M
1.1.2.43	CBP PAX Clearance Rate	% total PAX through CBP checkpoint in under 15 minutes - LAX	NA	44%	42%	51%	CBP Determined	H
1.1.2.44	CBP PAX Clearance Rate	% total PAX through CBP checkpoint in under 30 minutes - LAX	NA	32%	32%	28%	CBP Determined	H
1.1.2.45	CBP PAX Clearance Rate	% total PAX through CBP checkpoint in under 45 minutes - LAX	NA	15%	16%	12%	CBP Determined	H
1.1.3	**Airside**							
1.1.3.1	Flight Delays	% departing flights delayed more than 15 mins - total	NA	NA	3,971	8,215		D
1.1.3.4	Flight Delays	% arriving flights delayed more than 15 mins	NA	NA	NA	NA		D
1.1.3.5	Flight Delays	% delayed gate departures	15%	17%	17%	19%	19%	D

Los Angeles World Airports (LAWA)
Industrial, Economic, & Administrative (IEA) Survey
Balanced Scorecard: GUEST EXPERIENCE - Core Services

#	Measurement Label	Measurement Description	2011-2012	2012-2013	2013-2014	2014-2015	Target 2020	Freq
1.2	**AIRPORT SERVICES**							
1.2.1	New Service	# new nonstop or 1-stop destinations (intl) - LAX	4	3	8	6		A
1.2.2	New Service	# new nonstop destinations (US) - LAX	2	1	9	4		A
1.2.5	Service - US Cities LAX	# non-stop cities (US) - LAX	96	83	102	98		A
1.2.7	Service - Intl Cities LAX	# non-stop or 1-stop cities (intl) - LAX	59	63	67	72		A
1.2.9	Service - Foreign Countries LAX	# foreign countries served with non-stop or 1-stop services - LAX	32	32	37	40		A
1.3	**SAFE & SECURE**							
1.3.1	Visible Law Enforcement	# high-visibility patrols	NA	NA	NA	NA		M
1.3.4	Incidence of Crime	# Part 1 violent crimes per million PAX (aggravated assault, homicide, rape, robbery) - LAX (CY)	NA	0.2	0.1	0.0		M
1.3.6	Incidence of Crime	# Part 1 property crimes per million PAX (burglary, theft, auto theft, burglary of motor vehicle, theft from motor vehicle) - LAX (CY)	NA	7.9	7.4	7.8		M
1.3.7	Safe Facilities	# reported injuries by PAX in terminals	NA	NA	NA	NA		M
1.3.8	Pedestrian Safety	# pedestrian-involved vehicular accidents	NA	NA	NA	NA		M
1.3.10	Pedestrian Safety	# injuries on elevators, escalators - LAX	NA	207	280	337		M
1.3.11	ADA Facilities	# disability services complaints on Infoline	2	1	1	3		A
1.3.12	First Aid Facilities	# first aid facilities	NA	NA	NA	1		A

#	Measurement Label	Measurement Description	2011-2012	2012-2013	2013-2014	2014-2015	Target 2020	Freq
1.4	**MAINTAINED & CLEAN**							
1.4.1	LAX ACI/ASQ Survey	% LAX ACI/ASQ Survey satisfaction rating	NA	NA	NA	NA	TBD 2016	Q/A
1.4.2	LAX ACI/ASQ Survey	% LAX ACI/ASQ Survey satisfaction rating	NA	NA	NA	NA	TBD 2016	Q/A
1.4.3	Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - T1	NA	NA	NA	1,856	TBD 2016	Q
1.4.4	Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - T2	NA	NA	NA	3,411	TBD 2016	Q
1.4.5	Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - T3	NA	NA	NA	2,135	TBD 2016	Q
1.4.6	Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - T4	NA	NA	NA	3,259	TBD 2016	Q
1.4.7	Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - T5	NA	NA	NA	2,494	TBD 2016	Q
1.4.8	Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - T6	NA	NA	NA	3,077	TBD 2016	Q
1.4.9	Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - T7	NA	NA	NA	2,916	TBD 2016	Q
1.4.10	Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - T8	NA	NA	NA	527	TBD 2016	Q
1.4.11	Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - TBIT	NA	NA	NA	6,691	TBD 2016	Q
1.4.12	Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - Airfield	NA	NA	NA	1,174	TBD 2016	Q
1.4.13	Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - CTA	NA	NA	NA	901	TBD 2016	Q
1.4.14	Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - Outlying	NA	NA	NA	1,547	TBD 2016	Q
1.4.15	Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - Remote Gates	NA	NA	NA	46	TBD 2016	Q
1.4.16	Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - VNY	NA	NA	NA	49	TBD 2016	Q
1.4.20	Major System Maintenance	% recommended preventive maintenance	NA	NA	NA	NA	TBD 2016	Q
1.4.26	Maintenance Consistency	# cleanliness/terminal facilities complaints in	6	17	5	11		A
1.4.27	Maintenance Consistency	# cleanliness/terminal facilities complaints in	0	0	0	0		A
1.4.30	Cleaning Frequency	# hours interval between bathroom cleaning/inspection	NA	NA	NA	NA	0.7	Q/A

Los Angeles World Airports (LAWA)
Industrial, Economic, & Administrative (IEA) Survey
Balanced Scorecard: GUEST EXPERIENCE - Core Services

#	Measurement Label	Measurement Description	2011-2012	2012-2013	2013-2014	2014-2015	Target 2020	Freq
1.4.31	Cleaning Frequency	# hours interval between lactation room cleaning/inspection	NA	NA	NA	NA		A
1.4.32	Custodial Staffing	# sq. ft per custodial worker - T1	NA	NA	NA	16,800		A
1.4.33	Custodial Staffing	# sq. ft per custodial worker - T2	NA	NA	NA	31,174		A
1.4.34	Custodial Staffing	# sq. ft per custodial worker - T3	NA	NA	NA	30,000		A
1.4.35	Custodial Staffing	# sq. ft per custodial worker - T4	NA	NA	NA	17,375		A
1.4.36	Custodial Staffing	# sq. ft per custodial worker - T5	NA	NA	NA	16,947		A
1.4.37	Custodial Staffing	# sq. ft per custodial worker - T6	NA	NA	NA	17,250		A
1.4.38	Custodial Staffing	# sq. ft per custodial worker - T7 and T8	NA	NA	NA	20,760		A
1.4.39	Custodial Staffing	# sq. ft per custodial worker - TBIT	NA	NA	NA	20,724		A
1.4.48	Power Reliability	# power outages and surges - power grid	NA	NA	11	23		Q
1.4.49	Power Reliability	# power outages and surges - LAX system	NA	NA	1	4		Q

LAMP-AL00008

WORLD-CLASS FEATURES AND SERVICES

Finding. LAWA's efforts to improve some of its leading indicators for becoming world class will, in aggregate, position LAWA to be ranked higher among international airports.

World-class services focus on an airport's ambience, services, concessions, hospitality, and informed guests. Table II.3j displays examples of leading and lagging indicators that might be helpful in positioning LAX to be ranked among the top "world-class" airports.

Table II.3j: Sample Lagging and Leading Indicators for World-Class Services

Focus	Potential "Lagging" Guest Goals or Measures	Potential "Leading" Measures: People, Operations, Culture
Priority area for continuous improvements	*The lagging indicator is the ultimate goal or measurement for a desired strategic outcome.*	*To achieve desired strategic outcomes requires many tactical initiatives that together will help achieve the lagging indicator(s).*
AMBIANCE & LA SENSE OF PLACE		
LA Sense of Place		
LA Themed	# ratings on guest satisfaction surveys regarding ambience	▪ # LA-themed concessions by terminal ▪ # LA-themed artworks by terminal
SERVICES, CONCESSIONS, AMENITIES, & TECHNOLOGY		
Concessions & Amenities		
Desired Services Open and Available	# ratings on guest satisfaction surveys	▪ % concessions open for business 1 hour before 1st flight, by terminal ▪ % concessions open for business 30 minutes after last flight, by terminal
Desired Amenities That are Free are Available	# ratings on guest satisfaction surveys	▪ # amenities, by type, available that are free to guests
Terminals		
Desired Technology Available and Reliable	# ratings on guest satisfaction surveys	▪ # cell phone charging stations available per 1,000 EPAX by terminal
	# ratings on guest satisfaction surveys	▪ Mbps connection speed of Wi-Fi by terminal ▪ % terminal space offering free Wi-Fi
HOSPITALITY (Informed & Friendly Staff)		
Informed Staff		
Access to Information - LAWA Staff	# LAWA staff members escalating to supervisors and others because of lack of information	▪ % staff members in terminals trained in airport FAQ responses ▪ % staff members in terminals with access to FAQ information
Access to Information - Partner Staff (e.g., TSA, Airlines, Concessionaire staff members)	# partner staff members escalating to supervisors and others because of lack of information	▪ % partner staff members in terminals trained in airport FAQ responses ▪ % partner staff members in terminals with access to FAQ information

LAMP-AL00008

Focus	Potential "Lagging" Guest Goals or Measures	Potential "Leading" Measures: People, Operations, Culture
"Shopped Success"- LAWA Staff	% "shopped" questions responded to accurately % "shopped" questions where staff member escalated quickly and properly when he/she did not know the answer	▪ % staff members in terminals trained in airport FAQ responses ▪ % staff members in terminals with access to FAQ information
"Shopped Success" - Partner Staff (e.g., TSA, Airlines, Concessionaire staff members)	% "shopped" questions responded to accurately % "shopped" questions where staff member escalated quickly and properly when he/she did not know the answer	▪ % partner staff members in terminals trained in airport FAQ responses ▪ % partner staff members in terminals with access to FAQ information
Friendly Staff		
Shopped Success	# LAWA staff rated excellent in friendliness by shoppers # complaints about LAWA staff # commendations about LAWA staff	▪ # LAWA staff trained in Guest Experience and airport information ▪ % LAWA staff trained in Guest Experience and airport information
	# partner staff rated excellent in friendliness by shoppers # complaints about partner staff	▪ # partner staff trained in Guest Experience and airport information ▪ % partner staff trained in Guest Experience and airport information
INFORMED GUESTS		
Informed Guests		
Wayfinding/ Information	# information desk inquiries	▪ # visible signs for parking lots, traffic routes, terminals, gates, restaurants, rest rooms ▪ # unstaffed information booths in peak hours ▪ # media options for information

LAMP-AL00008

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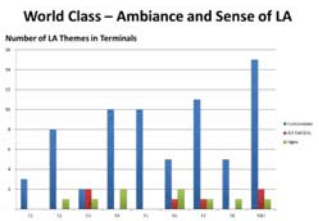
World Class – Ambiance & LA Sense of Place

Finding. LAWA has been striving to incorporate more of a LA Ambience into its concessions and art displays at LAX.

The graph displays the number of concessions and exhibits that reflect Los Angeles, by terminal. Although LAWA has diversified its concessions with LA themes and local restaurants and stores, this number is unlikely to change much because concessions have 10-year agreements at a minimum. The City of Los Angeles, Department of Cultural Affairs, puts on art exhibits in the terminals; in recent years, some of the terminals have not been able to have such exhibits while under construction. LAWA is also beginning to post more signs that depict Los Angeles.

Given the size of LAX, particularly in terms of wall space, LAWA has lots of opportunities to promote Los Angeles images – the beaches, downtown skyline, Hollywood, etc., as discussed in Chapter I.4 on "LAX Guest Experience."

Table II.3k: Proposed LAX Ambience/LA Sense of Place Goals and Performance

Sample Performance Measurements	LAX's LA Sense of Place Performance
Goal: Create a Great Ambiance and LA Sense of Place for Guests	
▪ # ratings on guest satisfaction surveys regarding ambience ▪ # LA-themed concessions by terminal ▪ # LA-themed artworks by terminal	

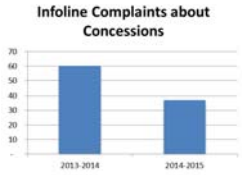
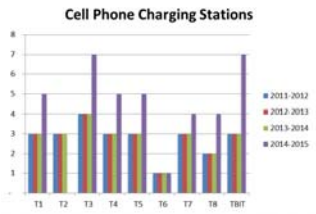
World Class – Services, Concessions, Amenities, & Technology

Finding. LAX has enhanced and diversified its concessions, but still lags in terms of amenities and technology that are available at other world-class airports.

A key component of being world class is the kinds of services, concessions, amenities, and technological conveniences available for guests. Through this IEA Survey, LAWA has begun the process of compiling Guest Experience measurements in this area.

KH

Table II.3l: Proposed LAX Concession, Amenities, & Technology Goals and Performance

Sample Performance Measurements	Services, Concessions, Amenities, & Technology Performance Currently Tracked
Goal: Desired Services Open and Available, Desired Amenities That are Free are Available, and Desired Technology is Available, Reliable, and Fast	
▪ # guest satisfaction rating on ACI/ASQ survey ▪ % concessions open for business 1 hour before 1st flight, by terminal ▪ % concessions open for business 30 minutes after last flight, by terminal Note: The number of complaints on Infoline about concessions has decreased in the last year.	ACI/ASQ survey to be administered in the first quarter of 2016 
▪ # cell phone charging stations available per 1,000 EPAX by terminal ▪ Mbps connection speed of Wi-Fi by terminal ▪ % terminal space offering free Wi-Fi Note: Although the number of cell phone charging stations has increased in every LAX terminal, such amenities are now often viewed as a core services in today's wired world. Hence, LAWA may want to move this metric into the Core Services BSC. As discussed in Part I, Internet speed remains an issue at LAX.	
▪ # amenities, by type, available that are free to guests	As discussed in Chapter I.4 on "LAX Guest Experience," LAX currently has 6 nursing rooms (with plans for 8 by year-end (1 per terminal)); 2 shoeshine stations; charging stations in every terminal (including charging stations provide via advertising and airlines (seat, stations, and laptop "lanes"), and LAWA-powered seats); and 1 pet relief space (with plans for 8 by 2017 (1 per terminal)).

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World Class – Hospitality (Informed & Friendly Staff)

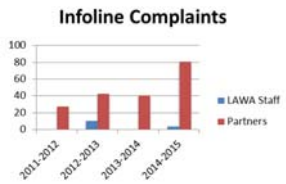
Finding. LAWA is striving to increase staff awareness of the importance of hospitality.

LAWA launched training programs on airport hospitality to enhance guest experience. To date:

- More than 2,000 LAWA staff members were trained between 2011 through 2013.
- More than 2,000 Westfield staff members were trained in 2015.

Infoline may not be the best measurement because it requires a guest taking the time to call in a complaint or commendation; however, during that time period, the number of complaints about LAWA staff decreased and LAWA partners (e.g., airlines, contractors, shuttle services) increased. An inverse trend occurred with commendations: LAWA's increased and its partners' decreased.

Table II.3m: Proposed LAX Hospitality Goals and Infoline Performance

Sample Performance Measurements	LAX's Hospitality
Goal: Friendly and Informed Staff	
Leading Indicators ▪ % staff members in terminals trained in airport FAQ responses ▪ % staff members in terminals with access to FAQ information ▪ % partner staff members in terminals trained in airport FAQ responses ▪ % partner staff members in terminals with access to FAQ information ▪ % staff members in terminals trained in airport FAQ responses	

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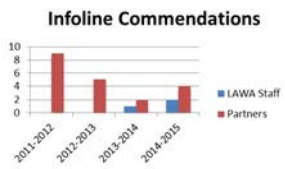
Sample Performance Measurements	LAX's Hospitality
▪ % staff members in terminals with access to FAQ information ▪ % partner staff members in terminals trained in airport FAQ responses ▪ % partner staff members in terminals with access to FAQ information **Lagging Indicators** ▪ # LAWA staff members escalating to supervisors and others because of lack of information ▪ # partner staff members escalating to supervisors and others because of lack of information ▪ % "shopped" questions responded to accurately ▪ % "shopped" questions where staff member escalated quickly and properly when he/she did not know the answer	

World Class – Informed Guests

Finding. LAWA is launching an effort to help guests to be more informed and, thus, less reliant on others.

LAWA identified and trained Guest Experience Members (GEMs) to be available within the LAX terminals; LAWA also provides VIP Services. The number of guests assisted is increasing each year, consistent with LAX's MAP growth rate. LAWA is using social media and other means to disseminate information more rapidly. The second chart shows the increased use of operations in audio paging. The Law Enforcement & Homeland Security Division's minutes from identification of issue to notification has improved – it has gone from less than 15 minutes in 2011-2012 to now around 11 minutes.

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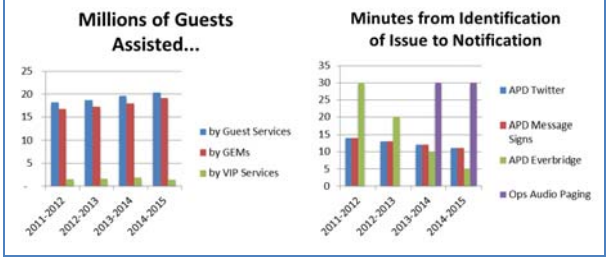
Table II.3n: Proposed LAX Informed Goals and Performance

Sample Performance Measurements for Informed Guests			
Goal: Guests Able to Find Their Way with Minimal Assistance			
Information Desks	**Wayfinding**	**Apps and Social Media**	**Escalation/Notification**
▪ # unstaffed information booths in peak hours ▪ # information desk inquiries	▪ # visible signs for parking lots, traffic routes, terminals, gates, restaurants, rest rooms ▪ # media options for information	▪ # apps for guests ▪ # users of apps ▪ # followers in social media channels ▪ # likes in social media channels	▪ # minutes from identification of issue to notification



Balanced Scorecard – Guest Experience: World-Class Services

The next pages display the Guest Experience BSC prototype for world-class services at LAX. This BSC reflects the top 75 metrics for world-class services, reflecting data currently available at LAWA and the metrics that LAX should begin to monitor. This BSC is important for distinguishing airports that are best-in-class. Additional world-class measurements that LAWA might want to track in future years are displayed in Appendix D.

Los Angeles World Airports (LAWA)
Industrial, Economic, & Administrative (IEA) Survey
Balanced Scorecard: GUEST EXPERIENCE - WORLD CLASS SERVICES

#	Measurement Label	Measurement Description	2011-2012	2012-2013	2013-2014	2014-2015	Target 2020	Freq
2	**WORLD-CLASS SERVICES**							
2.1	**AMBIANCE & SENSE OF PLACE (LA)**							
2.1.1	LAX ACI/ASQ Survey	% LAX ACI/ASQ Survey satisfaction rating	NA	NA	NA	NA	TBD 2016	Q/A
2.1.2	Guest Satisfaction - Ranking	# ranking of LAX in PAX satisfaction by ACI/ASQ or others	NA	NA	NA	NA	TBD 2016	A
2.1.3	PAX Satisfaction Ranking	# PAX satisfaction rating by ACI/ASQ	NA	NA	NA	NA	TBD 2016	Q/A
2.1.28	LA Themed Concessions	# LA-themed concessions - TBIT	5	5	5	15	15 to 20	A
2.1.29	LA Themed Artwork	# LA-themed art exhibitions - TBIT	-	-	-	2		A
2.1.30	LA Themed Signage	# LA-themed signs - TBIT	NA	NA	NA	1.0		A
2.2	**CONCESSIONS & AMENITIES**							
2.2.1	Cell Phone Charging	# cell phone charging stations - T1	3	3	3	5	7	A
2.2.2	Cell Phone Charging	# cell phone charging stations - T2	3	3	3	-	6	A
2.2.3	Cell Phone Charging	# cell phone charging stations - T3	4	4	4	7	7	A
2.2.4	Cell Phone Charging	# cell phone charging stations - T4	3	3	3	5	5	A
2.2.5	Cell Phone Charging	# cell phone charging stations - T5	3	3	3	5	5	A
2.2.6	Cell Phone Charging	# cell phone charging stations - T6	1	1	1	1	5	A
2.2.7	Cell Phone Charging	# cell phone charging stations - T7	3	3	3	4	6	A
2.2.8	Cell Phone Charging	# cell phone charging stations - T8	2	2	2	4	4	A
2.2.9	Cell Phone Charging	# cell phone charging stations - TBIT	3	3	3	7	7	A
2.2.11	Wi-Fi Speed	# Mbps connection speed of Wi-Fi	NA	NA	NA	NA		M
2.2.12	Concession Quality	# complaints about concessions on Infoline	-	-	60	37		A
2.2.13	Concession Availability	% concessions open 1 hour (2 hours in TBIT) before 1st flight, against plan	NA	NA	NA	100%		M
2.2.14	Concession Availability	% concessions open at boarding call for last	NA	NA	NA	100%		M
2.2.15	Amenities	# amenities free to guests	NA	NA	NA	9		A
2.2.16	ATMs	# ATMs in terminals	1 to 2	1 to 2	1 to 2	1 to 2	1 to 2	A
2.3	**HOSPITALITY (INFORMED STAFF)**							
2.3.1	LAX ACI/ASQ Survey	% LAX ACI/ASQ Survey satisfaction rating	NA	NA	NA	NA	TBD 2016	Q/A
2.3.2	LAX ACI/ASQ Survey	% LAX ACI/ASQ Survey satisfaction rating regarding courtesy and helpfulness of check-in staff	NA	NA	NA	NA	TBD 2016	Q/A

Los Angeles World Airports (LAWA)
Industrial, Economic, & Administrative (IEA) Survey
Balanced Scorecard: GUEST EXPERIENCE - WORLD CLASS SERVICES

#	Measurement Label	Measurement Description	2011-2012	2012-2013	2013-2014	2014-2015	Target 2020	Freq
2.3.3	LAX ACI/ASQ Survey	% LAX ACI/ASQ Survey satisfaction rating	NA	NA	NA	NA	TBD 2016	Q/A
2.3.4	LAX ACI/ASQ Survey	% LAX ACI/ASQ Survey satisfaction rating	NA	NA	NA	NA	TBD 2016	Q/A
2.3.5	Shopped Success - LAWA Staff	% shopped questioned responded to accurately -	NA	NA	NA	NA	90%	A
2.3.6	Shopped Success - Partners	% shopped questioned responded to accurately - LAWA terminals	NA	NA	NA	-	90%	A
2.3.20	Customer Service Training	# LAWA staff trained in guest experience and	1,000	1,000	-	-	3,000	A
2.3.22	Customer Service Training	# partners trained in guest experience and airport information	-	-	-	2,000 trained by Westfield	40,000	A
2.4	**INFORMED GUESTS**							
2.4.3	Notification Lag Time - APD Twitter	# mins from identification of issue to notification in appropriate channel	14	13	12	11	TBD, Estimates	A
2.4.4	Notification Lag Time - APD	# mins from identification of issue to notification	14	13	12	11	TBD, Estimates	A
2.4.6	Notification Lag Time - Ops	# mins from identification of issue to notification	NA	NA	30	30	TBD, Estimates	A
2.4.9	Wayfinding - Signage	# foreign language on signage, as per Title VI	NA	NA	NA	NA		A
2.4.10	Wayfinding - Signage	# wayfinding complaints on Infoline	17	16	8	20		A
2.4.12	Guest Services - GEMs	# PAX assisted by GEMs	16,731,324	17,152,914	17,852,139	19,105,667	TBD	M

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II.4: BSC – FINANCIAL PERFORMANCE

OVERVIEW

LAWA tracks financial performance indicators to ensure that the business aspects of running LAX are effectively maintained. Many of these metrics merit considerable attention at the executive and BOAC levels, because they are important indicators of the overall financial health of the airport. The performance indicators in this chapter cluster into the following topics:

Focus	Purpose of Metrics	Topics in this Chapter
LAWA's financial risk and financial competitive position	Metrics associated with managing the operation of the business aspects of being an airport are fiscally sound.	▪ Financial Risk ▪ Revenue Sources o Financial Competitive Position o Non-Aeronautical Revenue Generation
Accounting's operational cost management performance	Metrics associated with ensuring that accounting operations (e.g., Accounts Payable and Receivable) are well managed.	▪ Operational Cost Management ▪ Accounting Operations Efficiency
Risk management	Metrics associated with ensuring that risks are being insured and managed cost-effectively.	▪ Insurance Program Management

The financial data are stored and reported through SAP, which has been LAWA's enterprise financial system since 2000. Therefore, most of the metrics have historical trend data. As a result, this BSC is an example of a best practice at LAWA and can serve as a model for other divisions on how to use data.

The Financial BSCs can serve as a model for other divisions on how to use trend data and ratios to report on performance.

FINANCIAL RISK

Financial risk is the risk associated with whether LAWA will be able to continue to pay its current and future operating costs and debt service obligations. Table II.4a displays the metrics that LAWA uses to answer that question and its current performance.

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Table II.4a: Financial Risk Measurements and LAWA Performance

Focus	Description and Significance	LAWA Financial Performance
Senior lien bond ratings	The ratings from nationally recognized, independent, third-party rating agencies (Fitch, Moody's, and S&P) indicate LAWA's ability to pay off its outstanding bonds.	Since these ratings have been tracked, LAWA has maintained AA (Fitch), Aa3 (Moody's), and AA (S&P) ratings.

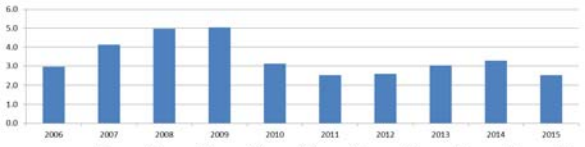
Senior Lien Bond Ratings

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Fitch Ratings	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA
Moody's Investor Service	Aa3	Aa3	Aa3	Aa3	Aa3	Aa3	Aa3	Aa3	Aa3	Aa3
S&P	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA

Total debt service coverage ratio	The number of times LAWA's net operating income (before depreciation/amortization) could cover LAWA's annual debt payment; shows the health of the airport's operating margins.	LAWA's current coverage exceeds 2.5 times the debt payment.

Total Debt Service Coverage Ratio

Note: 1.25x coverage required by indenture; >/= 1.75x preferred



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
LAX Total Debt Service Coverage	2.96	4.13	4.97	5.05	3.13	2.54	2.61	3.02	3.28	2.54

$ cash on hand	The number of days of operating expenses payable from available cash held in LAWA's accounts at fiscal year-end indicates how long a revenue interruption the airport can sustain.	LAWA meets or exceeds its 365-day target.

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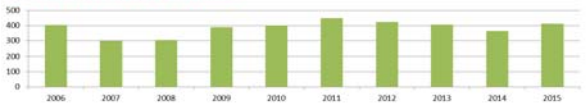
Focus	Description and Significance	LAWA Financial Performance

Days Cash on Hand

Note: 365 days informally targeted at LAWA

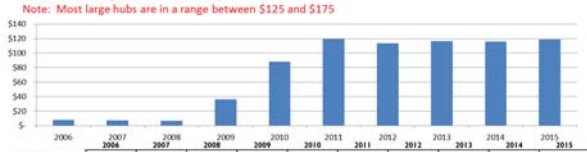


	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
LAX Days cash on Hand	405	299	305	391	401	449	424	407	365	412

$ debt per enplaned passenger (EPAX)	Existing debt per EPAX, an industry-standard metric and a relative measure of leverage comparable to other peer airports, is one measure of capital capacity.	During the past 5 years, LAWA has been between $113 and $119 per EPAX.

Debt Per Enplaned Passenger

Note: Most large hubs are in a range between $125 and $175



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
LAX Debt per Enplaned PAX	$ 7.77	$ 7.32	$ 6.81	$ 36.37	$ 88.39	$ 119.56	$ 113.32	$ 116.49	$ 116.00	$ 119.05

REVENUE SOURCES

As discussed in the "Executive Summary," total operating revenue is $1.1 billion; LAX accounts for 93% of it. The majority of LAX's revenue (66%) is from rentals, landing fees, and other aeronautical sources. The balance (34%) is from concessions and parking, as shown in Table II.4b.

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Table II.4b: LAX Revenue Sources (2015)

LAX Revenue Sources	Revenue ($000s)	% of Total
Rentals / Other Aeronautical	$460,338	44%
Landing Fees	$227,518	22%
Terminal Concessions	$166,745	16%
Non-Terminal Concessions (except Parking)	$101,534	10%
Parking	$85,803	8%
Other Concession	$3,862	>1%
Total	**$1,045,800**	**100%**

The next two sections discuss LAWA's financial competitive performance, including competitive position to enable LAX in particular to generate aeronautical and non-aeronautical revenues.

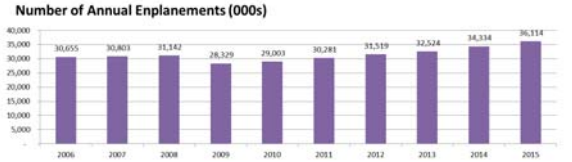
FINANCIAL COMPETITIVE PERFORMANCE

The financial competitive position indicates where LAX stands as an international airport. Table II.4c displays the metrics LAWA uses to track its competitive position financially, as well as its performance.

Table II.4c: Financial Competitive Position Measurements and LAWA Performance

Measurements	Significance	LAWA Competitive Position Performance
# LAWA annual enplanements	Growing enplanements is a sign of operational and competitive health.	Since the last IEA Survey in 2008, LAX's enplanements have increased from 31,142 in 2008 to 36,114 in 2015 – a 16% percent increase. In 2014, LAWA moved up in ranking from 3 to 2.

Number of Annual Enplanements (000s)



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
LAX Enplanements	30,655	30,803	31,142	28,329	29,003	30,281	31,519	32,524	34,334	36,114

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Measurements	Significance	LAWA Competitive Position Performance
Annual U.S. enplanement ranking	Ranking is an indicator of the airport's importance in the national air service market.	Rankings generally do not fluctuate much year-to-year. Within the U.S., LAX ranks: ▪ No. 2 in enplanements, after an 8-year trend of ranking No. 3 ▪ No. 3 in number of take-offs and landings (708,674 in 2014, an increase of 1.4% over 2013) ▪ No. 4 or No. 5 in air cargo tonnage processed Worldwide, LAX ranks: ▪ No. 5 in number of arriving/departing passengers o Atlanta is No. 1. o Beijing is No. 2 and gaining on Atlanta's ranking. o Dubai is gaining on LAX's ranking. ▪ No. 3 in number of take-offs and landings (i.e., aircraft movements) ▪ No. 14 or No. 15 in air cargo tonnage processed

National Enplanement Ranking

Goal: Maintain position in top 3

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
LAX Annual National Enplanement Ranking	3	3	3	3	3	3	3	3	2	n/a

$ annual reconciled landing fee	Relative changes show the trend for the cost of bringing an aircraft into the Los Angeles market.	LAX's landing fees have ranged between $4.06 and $4.37 during the last 5 years. Landing fees are important to contain and ensure competitiveness with other airports. Forecasts at some large airport hubs are beginning to trend toward the high $20s. LAX's level will be a function of future projects. Stability is as important as the absolute level for LAX (avoid single year volatility). While an uptrend is less competitive, constraints are largely related to airlines' appetites for further capital improvements and the profitability of routes connecting to the airport.

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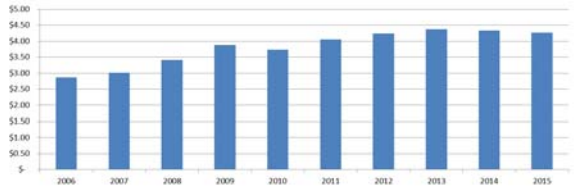
Measurements	Significance	LAWA Competitive Position Performance

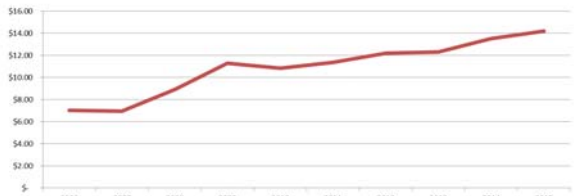
Airport Landing Fee



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
LAX Reconciled Landing Fee	$ 2.86	$ 3.01	$ 3.42	$ 3.88	$ 3.74	$ 4.06	$ 4.24	$ 4.37	$ 4.33	$ 4.27
Annual Growth Rate		5.2%	13.6%	13.5%	-3.6%	8.6%	4.4%	3.1%	-0.9%	-1.4%

$ annual cost to the airlines per EPAX	Annual cost per EPAX is one indicator of a passenger air carrier's unit cost for operations at an airport.	EPAX annual cost has moved from $11.36 in 2011 to $14.18 in 2015 at LAX.

Cost Per Enplaned Passenger



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
LAX Cost per Enplanement	$ 7.02	$ 6.93	$ 8.91	$ 11.27	$ 10.84	$ 11.36	$ 12.18	$ 12.31	$ 13.50	$ 14.18

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LAWA does not appear to put much emphasis on cargo, beyond efforts to lease facility space. LAWA's Law Enforcement & Homeland Security Division works on cargo security, but mostly from a terrorist prevention standpoint and in cooperation with the carriers to prevent theft. Beyond that, cargo is primarily the responsibility of the air carriers.

NON-AERONAUTICAL REVENUE GENERATION PERFORMANCE

Non-aeronautical revenue provides LAWA with diversification from the airline industry, including terminal and non-terminal revenues generated (displayed in Table II.4d). It is also a source of revenue available to increase margins beyond the "break-even" cost recovery formulas used to calculate airline rates and charges.

Table II.4d: Non-Aeronautical Revenue Measurements and LAWA Performance

Measurements Used	Significance and LAWA Risk Performance
▪ **% non-aeronautical revenue of total revenue**	Annual non-aeronautical revenues as a percent of total operating revenues indicate the level of diversified revenues source outside of airline counterparts. LAWA's current non-aeronautical revenue as a percent of total revenue ranges between 34.2% and 34.7% during the last 5 years. LAWA has set a target of >/= 40%, but indicates that it is not likely to achieve that target.

Non-Aeronautical Revenue as a Percentage of Total Revenue

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Non-Aero Revenue as % of Total	39.4%	42.7%	40.4%	38.0%	34.6%	34.7%	34.3%	35.5%	34.6%	34.2%

This non-aeronautical revenue can be further analyzed by revenue generated within the terminals and revenue generated outside of the terminals.

Non-Aeronautical, Terminal-Related Revenue

Table II.4e displays LAWA's measurements and performance regarding non-aeronautical revenue within the terminals.

Table II.4e: Non-Aeronautical, Terminal Revenue Measurements and LAWA Performance

Measurements Used	Significance and LAWA Risk Performance
▪ $ annual terminal-related concession revenue	The annual terminal-related concession revenue shows the relative increase or decrease of revenue produced by passengers via services inside the terminals. Annual terminal-related concession is significant, $166.7 million in 2015. The uptrend is important. LAWA has set a 10-year annualized growth rate target of approximately 4.5%, inclusive of new facilities. LAWA has exceeded that target for the last three years.

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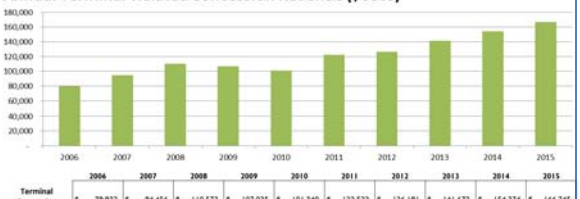
Measurements Used	Significance and LAWA Risk Performance

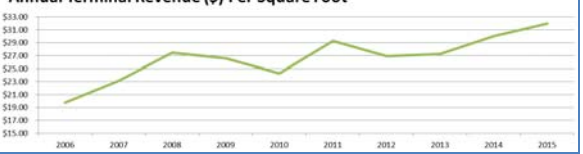
Annual Terminal-Related Concession Revenue ($000s)



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Terminal Concession Revenue	$ 79,932	$ 94,456	$ 110,573	$ 107,035	$ 101,340	$ 122,522	$ 126,191	$ 141,672	$ 154,374	$ 166,745
Revenue Growth	-1.3%	18.2%	17.1%	-3.2%	-5.3%	20.9%	3.0%	12.3%	9.0%	8.0%

▪ $ annual terminal revenue per square foot	Ratios are useful for understanding terminal revenue generated. Annual terminal related concession revenues per square foot show the relative efficiency of the concession operations in the terminal, particularly to ensure that LAWA is making the highest and best use of its space. An upward trend is positive.	

Annual Terminal Revenue ($) Per Square Foot



▪ $ annual terminal revenue per EPAX	Ratios are useful, particularly for understanding EPAX spending patterns, particularly because passengers tend to buy more before they board airplanes rather than after they arrive at airports, as discussed in Chapter II.1. Annual terminal-related, concession revenues per EPAX shows the efficiency of concession operations relative to the passengers served. An upward trend is positive.	

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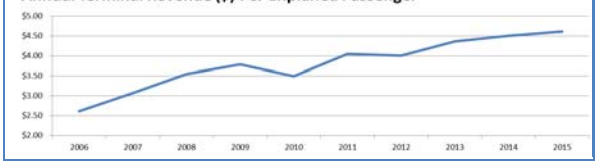
Measurements Used	Significance and LAWA Risk Performance

Annual Terminal Revenue ($) Per Enplaned Passenger



Non-Aeronautical, Non-Terminal Related Revenue

Non-terminal revenue is generated by concession, parking, and ground transportation services outside of the terminals, but by LAWA, as displayed in Table II.4f.

Table II.4f: Non-Aeronautical, Non-Terminal Revenue Measurements and LAWA Performance

Measurements Used	Significance and LAWA Risk Performance
▪ $ annual non-terminal-related concession revenue	The annual non-terminal related concession revenue shows the relative increase or decrease of revenue produced by guests via services outside of the terminals. Annual non-terminal related concession is significant, $187.3 million in 2015. Parking represents a significant portion of the revenue – $85 million last year. The uptrend is important. LAWA anticipates setting a 10-year annualized growth rate target of +5%, inclusive of opening and closing facilities.

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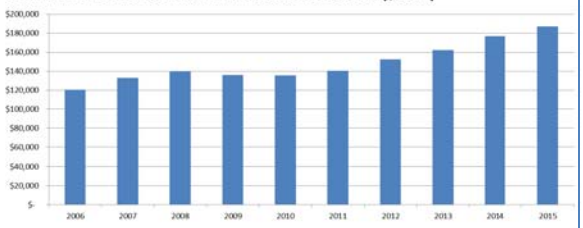
Measurements Used	Significance and LAWA Risk Performance

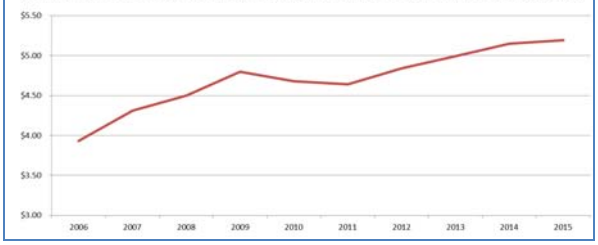
Annual Non-Terminal Related Concession Revenue ($000s)



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Non-Terminal Concession Revenue	$ 120,632	$ 132,721	$ 140,122	$ 136,061	$ 135,571	$ 140,673	$ 152,576	$ 162,467	$ 176,937	$ 187,337
Revenue Growth		10.0%	5.6%	-2.9%	-0.4%	3.8%	8.5%	6.5%	8.9%	5.9%

▪ $ annual non-terminal revenue per EPAX	Ratios are useful, particularly for understanding spending patterns. Annual terminal-related concession revenues per EPAX show the efficiency of concession operations relative to the passengers served. An upward trend is positive.

Annual Non-Terminal Related Concession Revenue Per Enplaned Passenger



KH

OPERATIONAL COST MANAGEMENT PERFORMANCE

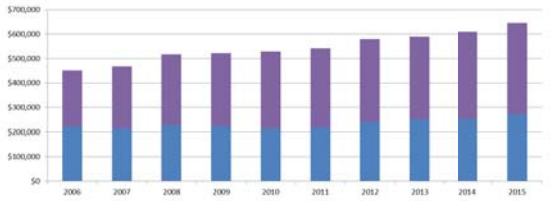
Operational cost management measures LAWA's success in controlling growth in operating expenses. Uncontrolled growth can erode net income available to pay debt service. LAWA tracks metrics addressing operational cost management, focusing primarily on annual operating expenses, EPAX, and employee headcount. LAWA uses these metrics to report both actual performance and as ratios to EPAXs and operating expenses compared to inflation. These metrics are important to ensure that LAWA will continue to remain financially viable. Table II.4g displays the key metrics that are tracked.

Table II.4g: Financial Operations Measurements and LAWA Performance

Measurements Used	Significance and LAWA Financial Operations Performance
Operating Expenses	
Operating expense trends are more important than the absolute level for LAX. An uptrend is less competitive; thus, LAWA should strive to contain annualized expenditure growth during the next 10 years.	
▪ $ annual operating expense before depreciation ▪ $ annual year-over-year operating expense growth rate	Annual operating expenses before depreciation show the annual costs of operating and maintaining the airports. Annual year-over-year operating expense growth rate is useful for comparing operating costs to inflation – an important factor in meeting financial projections. LAWA's annual operating expenses increased 24.7% from $517.7 million in 2008 to $645.4 million in 2015. A LAWA goal for annual operating expense before depreciation is to maintain levels below 5.5%, inclusive of new facilities (4% average + 1.5% for new facilities).

Annual Operating Expense (Before Depreciation/Amortization)

$ Millions (000s)



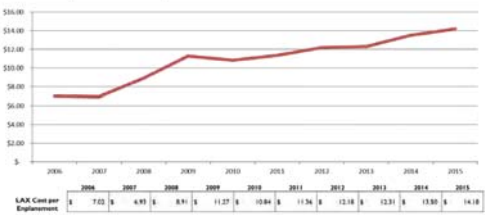
$ Millions (000s)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
LAX Operating Expense	$ 451,324	$ 468,524	$ 517,732	$ 522,911	$ 529,552	$ 541,228	$ 580,160	$ 589,430	$ 610,027	$ 645,398
LAX Operating Expense Growth	10.6%	3.8%	10.5%	1.0%	1.3%	2.2%	7.2%	1.6%	3.5%	5.8%

KH

Measurements Used	Significance and LAWA Financial Operations Performance
▪ $ annual operating expense per EPAX	Annual operating expense per EPAX relates the cost of operating the airport relative to the volume of passenger traffic served. Most airports are in the $11 to $15 range, but SFO is higher at $17.50. At $17.87 in 2015, LAX is currently on the highest end of operating cost per enplanement, and should target maintaining or decreasing its current level.

Cost Per Enplaned Passenger



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
LAX Cost per Enplanement	$ 7.02	$ 6.93	$ 8.91	$ 11.27	$ 10.84	$ 11.36	$ 12.18	$ 12.31	$ 13.90	$ 14.18

▪ $ annual employee headcount ▪ $ annual year-over-year employee headcount growth	Annual employee headcount is the number of employees employed by LAWA and may illustrate management's progress in controlling personnel costs – to the extent that they are able, given Civil Service constraints. Annual year-over-year employee headcount growth shows the absolute level of employee growth. LAWA focuses on trends. An uptrend is less competitive. LAWA's goal is to maintain level or marginally decrease overall headcount through attrition.

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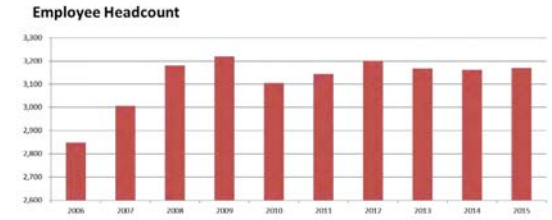
Measurements Used	Significance and LAWA Financial Operations Performance

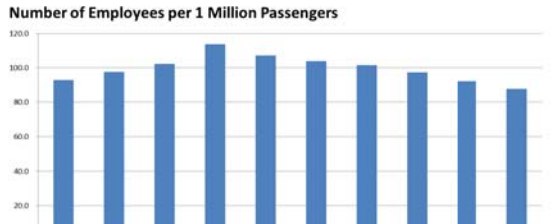
Employee Headcount



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
LAX Employee Headcount	2,849	3,004	3,181	3,220	3,105	3,144	3,200	3,168	3,161	3,170
LAX Employee Headcount Growth		5.5%	5.8%	1.2%	-3.6%	1.3%	1.8%	-1.0%	-0.2%	0.3%

▪ $ annual employee headcount per EPAX	Employee headcount per EPAX is useful in understanding the number of employees vis-à-vis the level of passenger traffic served. LAWA regards flat or decreasing levels as an indicator of management discipline. Headcount represents all workers at LAWA; the passenger count is LAX only.

Number of Employees per 1 Million Passengers



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
LAX Employees per Million PAX	92.9	97.7	102.1	113.7	107.1	103.8	101.5	97.4	92.1	87.8

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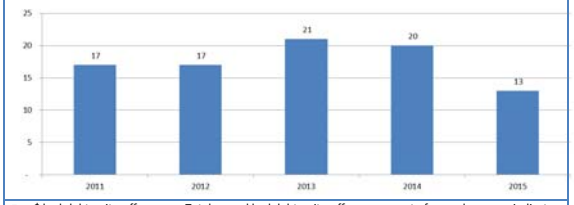
ACCOUNTING OPERATIONS EFFICIENCY

Indicators of accounting operations efficiency are related to accounts receivables, debt write-off, accounts payable processing, and ability to take advantage of discounts, as summarized in Table II.4h.

Table II.4h: Accounting Operations Measurements and LAWA Performance

Measurements Used	Significance and LAWA Financial Operations Performance
Accounts Receivable	
▪ # days/length of outstanding customer accounts	The number of days customer accounts are outstanding is an indicator of how quickly LAWA is collecting its receivables. A lower number is better. In 2015, the average number of days that customer accounts were outstanding was 13 days.
Average Days Customer Accounts Outstanding 	
▪ $ bad-debt write-off	Total annual bad debt write-offs as a percent of annual revenue indicate how effective LAWA is in collecting its receivables. A lower percentage of bad debt write-off is better. Bad debt write-off is currently less than .05% of annual revenue.

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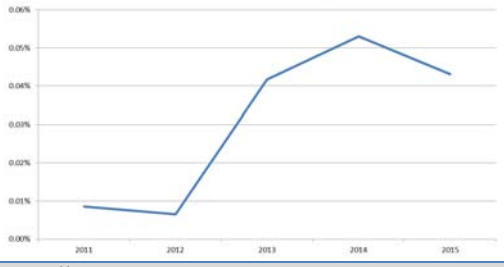
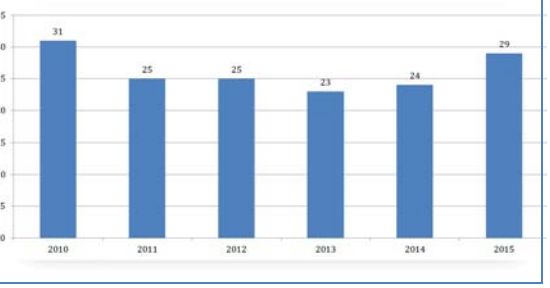
Measurements Used	Significance and LAWA Financial Operations Performance
Total Annual Bad Debt Write-offs as a Percentage of Total Annual Revenue 	
Accounts Payable	
▪ # days/cycle-time for payment of invoices	The City has set a requirement that all invoices be paid within 30 days. A smaller number indicates faster processing time. Fewer days are better for improving vendor relations, retaining services, and obtaining competitive prices. LAWA counts the number of days for payment of an invoice upon receipt by Accounts Payable of a completed invoice. LAWA currently reports an average of 29 days.
Invoice Process Cycle Time (City requirement = 30 days) 	

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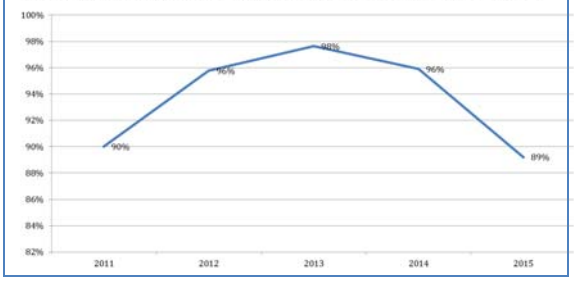
Measurements Used	Significance and LAWA Financial Operations Performance
▪ % discounts received for prompt payment ▪ $ value of discounts received for prompt payment	A higher percent indicates more discounts are taken against invoices. Over the past 5 years, LAWA has received between 89% and 98% of available discounts.
Percentage of Discounts Taken as a Percentage of Discounts Available 	

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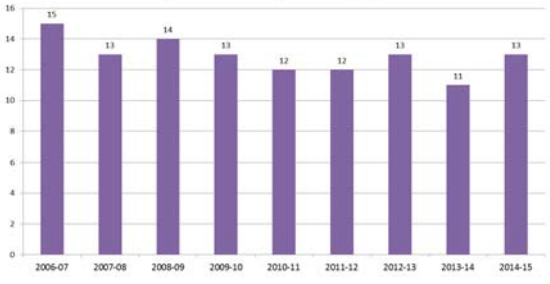
INSURANCE PROGRAM MANAGEMENT

Insurance program management encompasses Workers' Compensation, property/casualty coverage, and general aviation liability.

Workers' Compensation

Table II.4i displays LAWA's measurements and performance vis-à-vis Workers' Compensation.

Table II.4i: Workers' Compensation Measurements and LAWA Performance

Measurements Used	Significance and LAWA Risk Performance
▪ $ Workers' Compensation claims per employee	Workers' Compensation claims per employee shows the trend in number of claims to monitor effectiveness of LAWA's program, separate from cost (which may not be within management's control). Decreasing trends in the number of Workers' Compensation claims are positive and indicative of effective program management.
Number of Workers' Compensation Claims per 100 Employees 	
▪ $ Workers' Compensation cost per open claim per employee	Workers' Compensation cost per open claim per employee shows the trend in the average cost per claim over time and highlights external cost changes. Increasing trends are negative in terms of Workers' Compensation costs. Increases are largely due to changes in payment requirements under Workers' Compensation laws.

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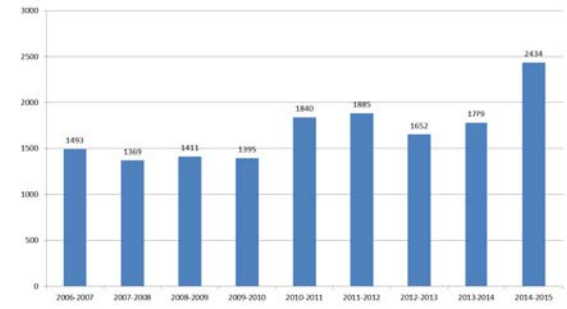
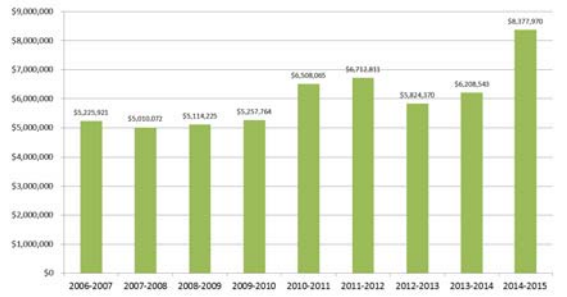
Measurements Used	Significance and LAWA Risk Performance

Workers' Compensation Cost per Open Claim per Employee ($)



▪ $ annual Workers' Compensation costs	Annual Workers' Compensation costs show the trend for overall costs year-to-year. Increasing trends in total Workers' Compensation costs are negative. Changes in total cost are influenced by the number of claims and payment requirements under Workers' Compensation laws.

Total Workers' Compensation Costs



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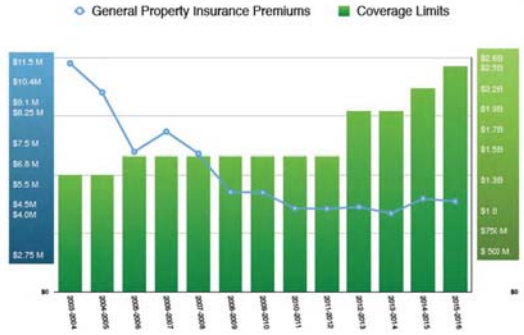
Other Risk Management

The Risk Management Division tracks levels of insurance coverage relative to premiums paid for the coverage over time, as show in Table II.4j.

Table II.4j: Risk Management Measurements and LAWA Performance

Measurements Used	Significance and LAWA Risk Performance
Insurance Coverage	
▪ $ property/casualty insurance coverage levels relative to cost ▪ $ aviation and terrorism insurance	Due in large part to favorable market conditions that Risk Management has taken advantage of, LAWA is getting greater coverage at a significantly reduced cost.

Property/Casualty Coverage Levels Relative to Cost



▪ General aviation liability coverage levels relative to cost	Due in large part to favorable market conditions that Risk Management has taken advantage of, LAWA is getting greater coverage at a significantly reduced cost.

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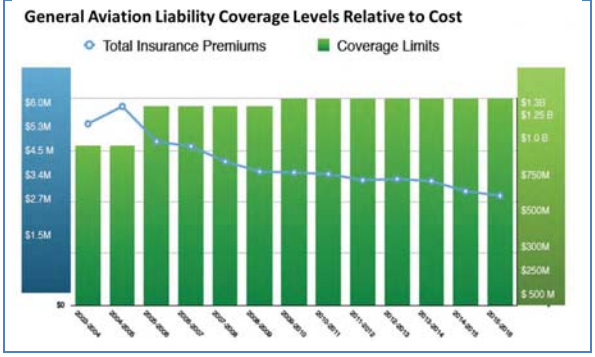
Measurements Used	Significance and LAWA Risk Performance

General Aviation Liability Coverage Levels Relative to Cost



BALANCED SCORECARDS – FINANCIALS & RISK MANAGEMENT

The next pages display the BSCs that KH developed in collaboration with the Chief Financial Officer and Comptroller to meet LAWA's goal of financial stability and sustainability.

Los Angeles World Airports (LAWA): Industrial, Economic, & Administrative (IEA) Survey
Industrial, Economic, & Administrative (IEA) Survey
Balanced Scorecard: FINANCE

#	Financial Measurement Description	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	5 Year Average	% Change From Prior Year	Target 2020	Freq
1.0	**Customer Experience**									
1.1	# days invoice process cycle time	25	25	23	24	29	25.2	21%	>30	M
2.0	**Airport Infrastructure/Operations**									
2.1	# enplanements (000s)	30,281	31,519	32,524	34,334	36,114	32,954.4	5%		M
2.2	$ LAX landing fee	$ 4.06	$ 4.24	$ 4.37	$ 4.33	$ 4.27	$ 4.25	-1%		A
2.3	$ LAX airline costs per Enplaned Passenger (EPAX)	$ 11.36	$ 12.18	$ 12.31	$ 13.50	$ 14.18	$ 12.71	5%		Q
2.4	# cargo tonnage	N/A	1,995,593	1,920,720	2,002,910	2,132,486	NA	6%		A
3.0	**Internal Organization/Technology**									
3.1	# average days accounts receivable outstanding	17	17	21	20	14	17.8	-30%		M
3.2	% annual bad debt write-off as a % of annual revenue	0.01%	0.01%	0.05%	0.05%	0.04%	0.03%	-20%		A
3.3	% Discounts Received as a % of Discounts Available	90%	98%	98%	98%	89%	94%	-7%		A
3.4	$ General Aviation & Terrorism Insurance Coverage ($million)	$ 1.3	$ 1.3	$ 1.3	$ 1.3	$ 1.3	$ 1.3	0%	$ 1.3	A
3.5	$ General Aviation & Terrorism Insurance Premiums ($million)	$ 3.81	$ 3.64	$ 3.67	$ 3.61	$ 3.31	$ 3.61	-8%		A
3.6	$ Property/Casualty Coverage ($ billion)	$ 1.50	$ 1.50	$ 2.00	$ 2.00	$ 2.25	$ 1.85	13%		A
3.7	$ Property/Casualty Premiums ($ million)	$ 3.93	$ 3.93	$ 4.00	$ 3.70	$ 4.39	$ 3.99	19%		A
4.0	**Learning Employees, People & Culture**									
4.1	# LAX employee headcount	3,144	3,200	3,168	3,161	3,170	3,169	0%		A
4.2	# LAX employee headcount per Million Annual Passengers (MAP)	103.8	101.5	97.4	92.1	87.8	96.5	-5%		A
5.0	**Financial**									
5.1	# Workers' Compensation claims per 100 employees	12	12	13	11	13	12.2	18%	10	Q
5.4	$ total Workers' Compensation costs	$ 6,508,065	$ 6,712,811	$ 5,824,370	$ 6,208,543	$ 8,377,970	$ 6,726,352	35%		M
5.5	**Financial**									
5.1	Total debt service coverage	2.54	2.61	3.02	3.28	2.54	2.8	-23%		M
5.2	# days cash on hand	449	424	407	365	412	411.4	13%		M
5.3	$ debt per EPAX	$ 110.56	$ 113.32	$ 116.49	$ 116.00	$ 119.05	$ 116.88	3%		A
5.4	$ LAX operating expense	$ 541,228	$ 580,160	$ 589,430	$ 610,027	$ 645,398	$ 593,249	6%		M
5.5	$ LAX operating expense per EPAX	$ 17.87	$ 18.41	$ 18.12	$ 17.77	$ 17.87	$ 18.01	1%		A
5.6	$ terminal concession revenue ($000s)	$ 122,522	$ 126,191	$ 141,672	$ 154,374	$ 166,745	$ 142,101	8%		M
5.7	$ terminal concession revenue ($000s) per square foot	$ 29.28	$ 29.91	$ 27.28	$ 30.03	$ 31.99	$ 29.10	7%		Q
5.8	$ terminal concession revenue ($000s) per EPAX	$ 4.05	$ 4.00	$ 4.36	$ 4.50	$ 4.61	$ 4.30	2%		Q
5.9	$ non-terminal concession revenue ($000s)	$ 140,673	$ 152,576	$ 162,467	$ 176,937	$ 187,337	$ 163,998	6%		M
5.10	$ non-terminal concession revenue ($000s) per EPAX	$ 4.64	$ 4.84	$ 4.99	$ 5.15	$ 5.19	$ 4.96	1%		Q

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II.5: BSC – ADMINISTRATION

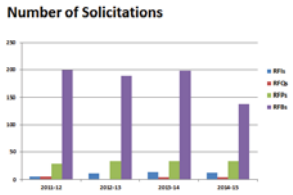
OVERVIEW

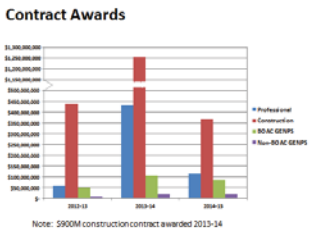
KH worked with several functions currently arrayed under the Deputy Executive Director, Administration, to develop BSCs for Procurement Services, Human Resources (HR) Services, and Internal Audit. Because of the nature of their services, these areas can affect all LAWA divisions. They each had a difficult time compiling the data for the BSCs because most of the indicators to be tracked required designing manual systems. Specifically:

- **Procurement Services** has not compiled performance metrics, and has only current information on cycle times.
- **Human Resources Services** is just now beginning to gather monthly cycle-time data and relies on manual data collection methods.
- **Internal Audit** has gathered 2014-2015 data.

PROCUREMENT SERVICES

The number of solicitations, particularly RFBs, has declined during the last four years, in part because of the Chief Executive Officer's newly approved authority to award multi-year contracts. Professional and Construction contract awards have comprised the bulk of LAWA's contracting due to the Modernization projects of the last few years. This trend will likely continue with the implementation of LAMP.





Note: $900M construction contract awarded 2013-14

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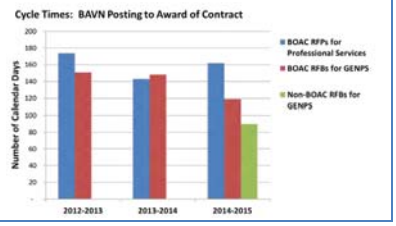
While gathering data, Procurement defined several performance areas to track and identified potential issues to delve deeper into.

BOAC-approved Contracts take longer (5 months) than non-BOAC approved contracts. As shown in Table II.5a, LAWA has made a significant improvement in the number of days required for BOAC-approved professional services contracts since 2012-2013. Even with these improvements, the cycle times are still long; average cycle time for BOAC-approved contracts is approximately 5 months, from posting of solicitation on LABAVN to BOAC for authorization to award.

There are many potential causes for the extended time period for BOAC-approved contracts, including "delays" that do not apply to other contracts. The delays include City Attorney review, contract development and execution, alignment with the BOAC calendar and agenda review cycle, and City Council approvals, when required.

Table II.5a: Sample Procurement Measurements: Cycle Times for Contract Approval

Potential Measurements	LAWA Performance
▪ # days to complete BOAC-approved contracts ▪ # days to complete contracts that do not require BOAC approval	

LAWA may not be getting optimal pools of bidders; 58% of the solicitations receive only 1 or 2 bids and represent 60% of the awarded dollar value for Goods, Equipment, and Non-Professional Services (GENPs) in 2014-2015, as discussed in Chapter I.5 and shown in Table II.5b. The number of firms attending the "Doing Business with LAWA" has also decreased over the past 5 years.

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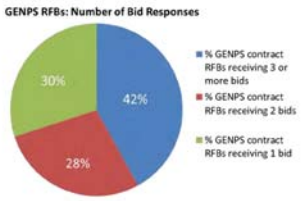
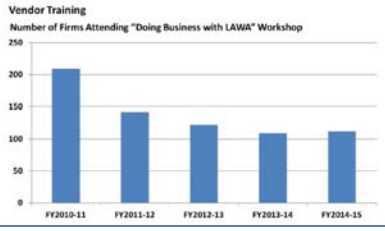
Table II.5b: Sample Procurement Measurements: Number of Bids and Vendor Training

Potential Measurements	LAWA Performance
▪ % solicitations with 3 or more bids ▪ $ solicitations with 3 or more bids	
▪ # firms attending "Doing Business with LAWA" seminars	

Good metrics lead to good questions more than good answers. Without historical trend data on the number of bidders and additional information about how LAWA compares to City-wide success in this indicator, it is only possible to speculate on potential causes to this limited number of bidders. As discussed in Chapter I.5, LAWA has identified a number of potential barriers. LAWA will need to research and analyze the causes to recommend appropriate steps to take to increase the percent of multiple-bid solicitations.

At LAWA, the annual inventory count percent variance has been low in two years, but spiked in 2013-2014, as shown in Table II.5c. LAWA measures its performance against a variance standard of between 3% and 5%. Tracking these types of metrics will lead LAWA managers to raise questions and explore the causes.

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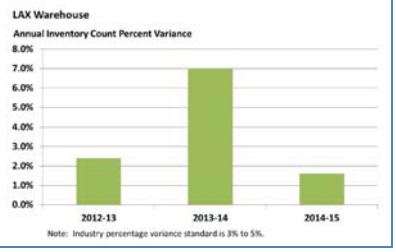
Table II.5c: Sample Warehousing Measurements

Potential Measurements	LAWA Performance
▪ % annual inventory count variance	

HUMAN RESOURCES (HR) SERVICES

Human Resources (HR) Services Division's mission is to:

- Onboard new employees
- Create and retain employee personnel records
- Provide guidance to management and LAWA employees
- Ensure EEO compliance with LAWA and City policies and State and Federal laws
- Assist in employee development through training and education
- Investigate misconduct and other disputes where necessary; partner with management and take action to address misconduct as necessary

HR Transactions

Finding. Human Resources (HR) Services maintains primarily transaction and volume data, as key indicators of workload.

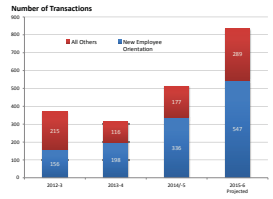
Human Resources (HR) Services maintains a wide variety of numerical data. Most of the historical data involve volumes of transactions: volume of employee relations case work, volume of front counter interactions, number of employees on the attendance deviation program, and number of complaints filed monthly.

Number of transactions is one indicator of workload. HR has data on:

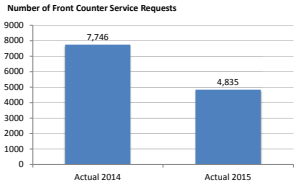
- # HR transactions, which have increased since 2013 and are anticipated to increase again in 2016
- # front-counter transactions, which have declined between 2014 and 2015
- # discipline cases handled

- # EEO cases received
- # LAWA employees trained
- # new LAWA employees attending orientation

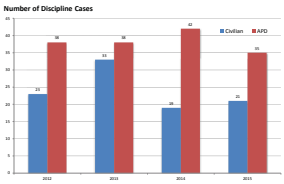
HR Transactions:
Request To Fill (RTF) Forms Processed



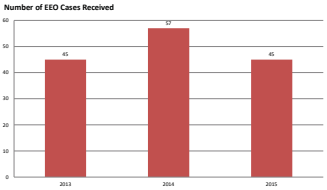
HR Front Counter Customer Experience



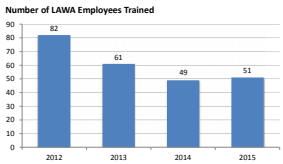
Total Discipline Cases



EEO Cases



Supervisor's Toolkit



New Employee Orientation

HR Cycle Times

Finding. Human Resources (HR) Services understands the value, but lacks cycle time data that would help it to provide better customer service.

During the course of the IEA Survey, HR conducted a survey of the HR staff members as part of an introspective effort to first evaluate itself. When asked, *"I understand the divisional goals and how I contribute to LAWA's overall purpose,"* 63% responded always, 24% responded usually, and 13% responded sometimes.

HR faced some challenges in compiling cycle-time data and launched an effort to gather such metrics as part of the IEA Survey. Cycle time tracking is only available through manual systems that are being designed as a result of this IEA Survey. Therefore, only one or two months' of data were collected for this IEA Survey Report. Ongoing gathering of the information will provide a baseline to establish improvement targets, and will permit analysis of the factors that affect the ability of HR to reach new targets. HR has plans to compile needed data in going forward.

Cycle times are being gathered in the areas most often cited by HR clients as areas of concern:

- # days to fill budgeted and non-budgeted positions
- # days to allocate a new position
- # days to establish a List of Eligible Candidates
- % discipline cases – civilian – where the HR review met turnaround 90-day goal
- % discipline cases –Law Enforcement & Homeland Security Division – where the HR review met turnaround 30-day goal
- % workplace violence cases getting timely review within 90 days after the initial threat assessment
- % EEO cases meeting case closure goals

As a result of this data-gathering process with KH, HR management acquired a deeper appreciation that performance measurements are most helpful when one understands the logic and reasoning behind them and uses the metrics to answer the 'why' related to HR's performance in various service areas. Through this approach, HR can use its databases and trend data to improve and predict HR's future performance.

Human Factor Data

Finding. Human Resources (HR) Services identified key measurements for monitoring LAWA employee satisfaction and experiences.

As a result of the IEA Survey, HR has identified a number of priority areas where gathering HR metrics will be useful in terms of understanding LAWA employees' satisfaction.

Orientation and supervisory training. HR recently solicited feedback on its New Employee Orientation course; on a scale of "1 to 5" with "5" being "High," 15% rated it 4, 85% rated it 5. Similarly, the end-of-course survey on the Supervisor's Toolkit training received a 4.7 on a scale of 5 in overall satisfaction. HR plans to track the effectiveness of the course from the point of view of the supervisors of those who took the course to determine whether improvements were noticed.

Employee satisfaction ratings. in the next fiscal year, budget permitting, HR is planning to launch a LAWA-wide questionnaire of employee satisfaction that will include questions from the employee questionnaire conducted by KH Consulting Group (KH) as part of the 2008 IEA Survey. Using the same questions will permit assessment of the change in employees' opinions over the past 8 years.

Gender equity. Gender equity has been a focus of Mayor Garcetti; LA City departments report on performance in non-traditional positions. Table II.5d displays LAWA's performance in terms of gender equity. Overall, 50% of the leadership is female; however, 23% of LAWA's workforce in non-traditional positions is female – an area HR plans to focus on.

Gender Equity In Non-Traditional Roles

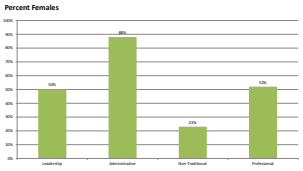


Table II.5d: Gender Equity, By EEO Category, at LAWA

Gender Equity Category	EEO Category	# Females	Total # of Employees	% Females
Leadership	Category A: Officials/Administration	54	109	50%
Administrative	Category E: Paraprofessionals	1	1	88%
	Category F: Administrative Support	298	339	
Non-Traditional	Category C: Technicians	22	151	23%
	Category D: Protective Service Workers	160	875	
	Category G: Skilled Craft Workers	7	423	
	Category H: Service-Maintenance	325	813	
Professionals	Category B: Professionals	261	503	52%

INTERNAL AUDIT

Internal Audit has been tracking metrics associated with:

- # hours expended in audits
- # training required for maintenance of certifications

In alignment with the recommendations included in Chapter I.3 for an expanded role of Internal Audit, the scorecard will also track:

- # audits identified as high risk that were completed
- % approved audit plan completed
- # recommendations implemented within the recommended timeframe
- # satisfaction rating with audits performed

BALANCED SCORECARDS – ADMINISTRATION

Given the data constraints, just discussed, the initial BSC developed for Procurement Services, Human Resources Services, and Internal Audit is in the following pages.

Los Angeles World Airports (LAWA): Industrial, Economic, & Administrative (IEA) Survey
Industrial, Economic, & Administrative (IEA) Survey
Balanced Scorecard: ADMINISTRATION

#	Organization	Measurement Description	2011-2012	2012-2013	2013-2014	2014-2015	% Change Over Prior Year	Target 2020
4	**Learning Employees**							
4.1	Procurement	# trainings classes/industry conferences attended by PSD staff	NA	NA	NA	18	NA	
4.2	Procurement	# Contract Managers and DCAs attending P&C Training Program	58	70	91	88	-3.3%	
4.3	Finance	LAX Employee Headcount	3,200	3,168	3,161	3,170	0.3%	
4.4	Internal Audit	# CPE hours completed per auditor	NA	NA	NA	NA	NA	40
4.5	Internal Audit	# Audit Related CPE credits completed per auditor	NA	NA	NA	NA	NA	20
4.6	Internal Audit	# of Ethics Related CPE credits completed per auditor	NA	NA	NA	NA	NA	8
4.7	Internal Audit	# Professional Certifications obtained/maintained per staff	NA	NA	NA	NA	NA	1
5	**Financial**							
5.1	Procurement	$ estimated savings through competitive bidding of GENPS contracts	-	NA	NA	$857,673	NA	

Los Angeles World Airports (LAWA): Industrial, Economic, & Administrative (IEA) Survey
Industrial, Economic, & Administrative (IEA) Survey
Balanced Scorecard: ADMINISTRATION

#	Organization	Measurement Description	2011-2012	2012-2013	2013-2014	2014-2015	% Change Over Prior Year	Target 2020
1	**Public Accountability**							
1.1	Procurement	$ total value of contracts awarded subject to SBE Program	NA	NA	$ 410,784,255	$ 225,256,267	-45.2%	
1.2	Procurement	$ total value of SBE awards combined as primes and subcontractors	NA	NA	$ 120,580,852	$ 63,789,981	-47.1%	
1.3	Procurement	% dollar value of SBE awards combined as primes and subcontractors	NA	NA	29.35%	28.31%	-0.01	
1.4	Procurement	# firms trained at Doing Business with LAWA workshop	142	122	109	112	2.8%	
2	**Customer Service (within LAWA)**							
2.1	Procurement	# average days between BAVN posting of Professional Services RFPs and BOAC contract award	NA	174	143	162	13.3%	
2.2	Procurement	# average days between BAVN posting of GENPS RFBs and BOAC contract award	NA	151	148	119	-19.6%	
2.3	Procurement	# average days between BAVN posting of Non-BOAC GENPS RFBs and PSD contract award	NA	NA	NA	90	NA	
2.4	HR	Cycle time for new employee onboarding - Budgeted	NA	NA	NA	NA	NA	
2.5	HR	Cycle time for new employee onboarding - Not Budgeted	NA	NA	NA	NA	NA	
2.6	HR	Cycle time for allocation request	NA	NA	NA	NA	NA	
2.7	HR	Cycle time for exam requests to Personnel	NA	NA	NA	NA	NA	
2.8	HR	% HR front counter service requests completed within 1 trip	NA	NA	NA	NA	NA	
2.9	Internal Audit	% customers satisfied per audit	NA	NA	NA	NA	NA	
3	**Internal Organization/Technology**							
3.1	Procurement	# RFIs w/project and administrative review	6	10	13	12	-7.7%	
3.2	Procurement	# RFQs w/project, administrative and vendor review	6	1	4	5	25.0%	
3.3	Procurement	# RFPs w/project, administrative, vendor and evaluation review	29	33	33	34	3.0%	
3.4	Procurement	# RFBs for GENPS reviewed and processed	199	190	189	137	-27.5%	
3.5	Procurement	$ value of BOAC approved Professional Services contracts	NA	$ 58,550,787	$ 432,728,198	$ 116,122,406	-73.2%	
3.6	Procurement	$ value of BOAC approved Construction Engineering contracts	NA	$ 438,012,062	$ 354,874,217	$ 369,270,333	4.1%	
3.7	Procurement	$ value of BOAC approved GENPS contracts	NA	$ 46,630,298	$ 105,352,526	$ 85,401,732	-18.9%	
3.8	Procurement	$ value of Non-BOAC approved GENPS contracts awarded	NA	$ 6,923,970	$ 17,366,675	$ 18,437,993	6.2%	
3.9	Procurement	% GENPS contract solicitations fewer than 3 bids	NA	NA	NA	58%	NA	

II.6: BSC – INFORMED PUBLIC

OVERVIEW

There are many audiences and purposes for metrics gathered by public agencies. KH focused on strategic and executive/managerial aspects, as contrasted with comprehensive operational metrics used day-to-day. While most of these data and metrics are available to the public through the California Public Records Act (CPRA),[10] most residents are not likely to be interested in the level of detail that is reported in this IEA Survey report.

The Public can be divided into three separate groups:

- **Informed guests.** A key piece of the Guest Experience BSC is informed guests, already discussed in Chapter I.4 and Chapter II.3. The interests of guests and "meeters and greeters" largely lie in receiving real-time information about getting to and from flights, and knowing where to access concessions and amenities. LAWA is focusing on ensuring that the desired information is available through different communication channels and media.
- **Informed neighbors.** The surrounding communities will be interested in the environmental metrics and some of the economic development metrics gathered in the CSR BSC, covered in Chapter I.3 and Chapter II.2. The neighbors are most concerned about traffic and noise – both likely to be ongoing issues with all communities surrounding LAX. Moreover, noise will continue to be an important discussion due to the FAA's upgrade to a satellite system that is designed to reduce air traffic congestion with more direct and condensed routing into airports that will change noise contours. Therefore, it will be helpful for neighboring communities to understand the economic benefits of the airport – how many of their neighbors earn their livelihood because of LAX – to counterbalance the potential discomfort and inconvenience of noise and traffic disruptions.
- **LA city residents.** That leaves City residents, who are not traveling to and from the airport and who are not neighbors of the airport. As taxpayers, and as responsible Angelenos, they will want to be certain that:
  - LAWA is being operated safely, effectively, fairly, and efficiently.
  - The economic benefits of the airport are being managed well.
  - The negative environmental impacts are closely watched and managed.

  At the same time, the public does not want to be required to review a large number of indicators. This section suggests a BSC listing a handful of important metrics that might be of interest to those residents.

10 http://www.thefirstamendment.org/publicrecordsact.pdf

Los Angeles World Airports (LAWA): Industrial, Economic, & Administrative (IEA) Survey
Industrial, Economic, & Administrative (IEA) Survey
Balanced Scorecard: ADMINISTRATION

#	Organization	Measurement Description	2011-2012	2012-2013	2013-2014	2014-2015	% Change Over Prior Year	Target 2020
3.10	Procurement	% GENPS contract solicitations receiving a single bid	NA	NA	NA	29%	NA	
3.11	Procurement	$ value of GENPS cooperative purchasing awards	NA	NA	NA	$3,836,924	NA	
3.12	Procurement	% value of GENPS cooperative purchasing awards	NA	NA	NA	4%	NA	
3.13	Procurement	$ value of GENPS Emergency Purchase Orders	NA	$56,357	$74,151	$77,364	4.3%	
3.14	Procurement	% variance in LAX Warehouse	NA	5.5%	2.0%	4.3%	0.02	
3.15	HR	# HR front counter requests for service	NA	NA	7,746	4,835	-37.6%	
3.16	HR	# satisfaction with New Employee Orientation by new employees - November 2015 (Scale 5)	NA	NA	NA	4.85	NA	
3.17	HR	# satisfaction with Tool Kit training (Fall 2015)	NA	NA	NA	4.7	NA	
3.18	HR	% HR staff surveyed who responsed they understand HR contrbution to LAWA purpose	NA	NA	NA	87%	NA	
3.19	HR	# Airport Police Discipline cases completed within 30 days	38	38	42	35	-16.7%	
3.20	HR	# Civilian Discipline cases completed within 90 days	23	33	19	21	10.5%	
3.21	HR	# discipline cases not challenged	NA	NA	NA	NA	NA	
3.22	HR	% discipline appeals upheld	NA	NA	NA	NA	NA	
3.23	HR	% EEO complaint investigations completed within 90 days	NA	NA	NA	NA	NA	
3.24	HR	% workplace violence cases completed within 90 days	NA	NA	NA	NA	NA	
3.25	HR	% women in non-traditional jobs	NA	NA	NA	NA	NA	
3.26	HR	# employees attending new employee orientation	NA	156	198	336	69.7%	
3.27	HR	% women in non-traditional jobs	NA	NA	NA	23%	NA	
3.28	Internal Audit	% total hours available for audits per auditor	NA	NA	NA	NA	NA	1,220
3.29	Internal Audit	% staff hours spent auditing per auditor	NA	NA	NA	NA	NA	
3.30	Internal Audit	% high risk audits completed from approved audit plan	NA	NA	NA	NA	NA	100
3.31	Internal Audit	% audits completed within +/- 10% of budget	NA	NA	NA	NA	NA	100
3.32	Internal Audit	% recommendations fully implemented	NA	NA	NA	NA	NA	90
3.33	Internal Audit	% audits completed at Executive Mgmts. request	NA	NA	NA	NA	NA	100
3.34	Internal Audit	% staff time spent managing external auditors	NA	NA	NA	NA	NA	10

The areas of greatest interest to the public regarding LAWA are:

- **LA Image and Reputation** – LAWA as a great asset that promotes a positive image of Los Angeles as an international gateway
- **Economic Impact** – LAWA as an economic engine for LA City
- **Environmental Responsibility** – LAWA as a responsible environmental citizen
- **Effective Management** – LAWA as an effectively managed City department
- **Efficient Management & Operations** – LAWA as an efficiently managed City department
- **Fiscal Responsibility** – LAWA as a well-run business

Table II.6a presents a roadmap of where LAWA would locate the metrics for building an Informed Public scorecard for these areas of greatest interest to the public. LAWA will want to display the data in user-friendly ways – graphs, trend lines, etc.

Table II.6a: Roadmap for Building an Informed Public Balanced Scorecard, Linked to Sample Goals and Potential Measurements

#	Scorecard Source	Measurement Description
LA Image and Reputation		
Goal: LAWA as a great asset that promotes a positive image of Los Angeles as an international gateway		
	Finance	# LAX ranking among world airports
	Guest Experience	# guest satisfaction ratings
	Guest Experience	# non-stop flights in U.S. and internationally
	Guest Experience	# international cities and foreign countries served
	Finance	# LAX ranking among world airports
	Guest Experience	# criminal complaints
Economic Impact		
Goal: LAWA as an economic engine for LA City		
	CSR	# total direct and indirect jobs created by LAWA
	CSR	# total direct and indirect revenues generated by LAX (TOT, POT, sales tax, etc.)
Environmental Responsibility		
Goal: LAWA as a responsible environmental citizen		
	CSR	# year-over-year changes in GHG emissions
	CSR	# year-over-year changes in water usage
	CSR	# GHG emissions per MAP
	CSR	# GHG ranking of LAX as a domestic airport (if available)
Effective Management		
Goal: LAWA as an effectively managed City department		
	NA	# runway incursions or other airplane safety issues

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#	Scorecard Source	Measurement Description
	CSR	# citations by regulatory agencies
Efficient Management & Operations		
Goal: LAWA as an efficiently managed City department		
	Finance	# LAX employees per MAP
	Finance	$ cost per enplaned passenger (EPAX)
	NA	$ construction cost overruns
Fiscal Responsibility		
Goal: LAWA as a well-run business		
	Finance	LAWA debt rating
	Finance	$ LAWA operating expenses per EPAX
	Finance	$ LAWA revenues

NA = Available at LAWA, but not in any of the BSC prototypes that KH developed.

BALANCED SCORECARDS – INFORMED PUBLIC

The next pages display the BSC that KH developed for an "Informed Public," based on available data at the time of this IEA Survey.

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Los Angeles World Airports (LAWA): Industrial, Economic, & Administrative (IEA) Survey
Industrial, Economic, & Administrative (IEA) Survey
Balanced Scorecard: Informed Public

#	Focus	Informed Public Measurement Description	FY 2013-2014 or CY 2014	FY 2014-2015 or CY 2015	% Change from Prior Year
1	**LA Image & Reputation: LAWA as a great asset that promotes a positive image of Los Angeles as an international gateway**				
1.1	LAX Ranking	# LAX ranking among world airports		2	
1.2	LAX Ranking	# ranking in terms of size, based on MAP - U.S. (ACI)	2	NA	
1.3	LAX Ranking	# ranking in terms of size, based on MAP - Worldwide (ACI)	5	NA	
1.4	LAX Ranking	# aircraft movements - ranking (ACI)	3	NA	
1.5	LAX Ranking	# ranking for air cargo tonnage processed- U.S. (ACI)	5	NA	
1.6	LAX Ranking	# ranking for air cargo tonnage processed- Worldwide (ACI)	15	NA	
1.7	LAX Size	# PAX (enplaned/deplaned, transit PAX counted once) (ACI)	70,663,265	74,936,256	6.0%
1.8	Guest Experience	# guest satisfaction ratings (ACI/ASQ survey)	NA	NA	TBD 2016
1.9	Guest Experience	# LAX PAX rating out of 1,000 points on J.D. Power North American Airport Study	NA	670	NA
1.10	Guest Experience	# LAX ranking out of 31 largest domestic airports based on J.D. Powers North American Airport Study	NA	29	NA
1.11	Air Services	# non-stop cities (US) - LAX	102	98	-3.9%
1.12	Air Services	# non-stop cities (int'l) - LAX	67	72	7.5%
1.13	Air Services	# countries served from LAX	37	40	8.1%
1.14	Air Services	# take-offs/landings per week	1,942 NA		1.4%
1.15	Air Services	# ranking take-offs/landings per week in U.S.	3	3	No Change
1.16	Cargo	# air cargo processed (loaded, unloaded, and mail) in metric	1,816,269	NA	3.9%
1.17	Cargo	# air cargo processed (loaded, unloaded, and mail) in metric	1,816,269	NA	3.9%
1.18	Cargo	$-billions air cargo value - LAX	$ 96.3	NA	5.1%
1.19	Safety	# Part I crimes	532	583	9.6%
1.20	Safety	# Part 1 crimes Per MAP (1 million passengers)	7.5	7.8	NA
1.21	Safety	# Part 1 crimes Per MAP Plus Badged Employees	--	7.4	NA
2	**Economic Impact: LAWA as an economic engine for LA City**				
2.1	Tax Revenues	$ estimated sales tax generated by airport-related businesses	NA	$4,163,960	NA
2.2	Tax Revenues	$ Parking Occupancy Tax (POT) - LAWA	NA	$ 876,000	NA
2.3	Tax Revenues	$-millions local tax revenues - LAX	$ 92,700,000	NA	NA
2.4	Tax Revenues	$ Possessory Interest Tax Revenue - VNY	$16,941,663	NA	NA
2.5	Tax Revenues	$ Secured Property Tax Revenue - VNY	$581,067	NA	NA
2.6	Jobs	# jobs created in LA County - LAWA	NA	39,585	NA
2.8	Household Income	$ (MM) labor income in adjacent zip codes - LAWA	NA	$11,336,981	NA
2.9	Household Income	$ (estimated) earned by local households in LA County due to LAWA	NA	$150,014,413	NA
2.10	Household Income	$ (estimated) earned by local households in LA City due to LAWA	NA	$45,563,335	NA
2.11	Economic Output - LAWA	$ economic output - LAWA	NA	$963,524,793	NA
2.12	Economic-VNY	# operations - VNY	238,000	NA	-11.9%
2.13	Economic-VNY	# Fixed Base Operators	3	3	0%
3	**Environmental Responsibility: LAWA as a responsible environmental citizen**				
3.1	Noise	# LAX noise complaints	NA	8,062	NA
3.2	Energy	# kWh green power purchased	NA	20,917,626	NA
3.4	Materials & Resources	# tons recycled cardboard, mixed paper, plastic, glass, metal - LAX	9,530	NA	NA

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Los Angeles World Airports (LAWA): Industrial, Economic, & Administrative (IEA) Survey
Industrial, Economic, & Administrative (IEA) Survey
Balanced Scorecard: Informed Public

#	Focus	Informed Public Measurement Description	FY 2013-2014 or CY 2014	FY 2014-2015 or CY 2015	% Change from Prior Year
3.5	Natural Resources	# El Segundo Blue Butterfly individuals (average)	26,881	NA	NA
3.6	Water	# gallons total Potable Water consumed LAX	NA	501,786,824	NA
3.7	Water	# gallons Reclaimed water consumed LAX	NA	57,411,992	NA
3.8	Water	# year-over-year changes in water usage	NA	NA	NA
3.9	Water	$ savings using reclaimed water	NA	$ 300,000	NA
4.0	GHG	# GHG emissions per MAP	NA	NA	NA
4.1	GHG	# GHG ranking o LAX as a domestic airport	NA	NA	NA
4.2	GHG	# year-over-year changes in GHG	NA	NA	NA
4	**Effective Management: LAWA as an effectively managed City department**				
4.1	Finance	LAX Debt per Enplaned Passenger	$116.00	$119.05	2.6%
4.2	Finance	#runway incursions or other airplane safety issues	NA	NA	NA
4.3	Finance	# citations by regulatory agencies	NA	NA	NA
5	**Efficient Management & Operations: LAWA as an efficiently managed City department**				
5.1	Staffing	# LAX employee headcount	3,161	3,170	0.3%
5.2	Staffing	# LAX employees per MAP (1:MAP)	92.1	87.8	-4.7%
5.3	Costs	$ cost per enplaned passenger (EPAX)	$ 13.50	$ 14.18	5.0%
5.4	Costs	$ construction cost overruns	NA	NA	NA
6	**Fiscally Responsible: LAWA as a well-run business**				
6.1	Finance	LAX debt bond rating	AA	AA	No Change
6.2	Finance	$ revenues - landing fees - $/1,000 lbs. landed weight	$ 4	$ 4	No Change
6.3	Operations	$ LAX Operating Expense ($000s)	$ 610,027	$ 645,398	5.8%
6.4	Concessions	$ Terminal Concession Revenue ($000s)	$ 154,374	$ 166,745	8.0%
6.5	Expenses	$ LAX Operating Expense ($000s)	$ 610,027	$ 645,398	5.8%
6.6	Expenses	$ ONT Operating Expense ($000s)	$ 54,382	$ 52,671	-3.1%
6.7	Expenses	$ VNY Operating Expense ($000s)	$ 13,576	$ 12,482	-8.1%
6.8	Expenses	$ PMD Operating Expense ($000s)	$ 2,959	$ 2,666	-9.9%
6.9	Expenses	$ LAWA Operating Expense ($000s)	$ 680,944	$ 713,217	4.7%
6.10	Revenues	$ LAX Landing Fees ($000s)	$ 222,608	$ 227,518	2.2%
6.11	Revenues	$ LAX Rentals / Other Aeronautical ($000s)	$ 405,918	$ 460,338	13.4%
6.12	Revenues	$ LAX Terminal Concessions ($000s)	$ 154,374	$ 166,745	8.0%
6.13	Revenues	$ LAX Non-Terminal Concessions (except Parking) ($000s)	$ 97,023	$ 101,534	4.6%
6.14	Revenues	$ LAX Parking ($000s)	$ 79,914	$ 85,803	7.4%
6.15	Revenues	LAX Other Operating Revenues ($000s)	$ 1,892	$ 3,862	104.1%
6.16	Revenues	$ LAX Operating Revenues ($000s)	$ 961,729	$ 1,045,800	8.7%
6.17	Revenues	$ ONT Operating Revenues ($000s)	$ 56,659	$ 56,880	0.4%
6.18	Revenues	$ VNY Operating Revenues ($000s)	$ 19,028	$ 16,847	-11.5%
6.19	Revenues	$ PMD Operating Revenues ($000s)	$ 2,173	$ 3,160	45.4%
6.20	Revenues	$ LAWA Operating Revenues ($000s)	$ 1,039,589	$ 1,122,687	8.0%

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Industrial, Economic, & Administrative (IEA) Survey Report of Los Angeles World Airports (LAWA)

Part III: Implementing and Monitoring

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III.1: IMPLEMENTATION PLAN

This chapter outlines the steps to be taken to implement the IEA Survey Report recommendations and monitor progress. Many of the recommendations complement and build on each other. Therefore, they should be implemented systematically.

Step 1: Review and Accept Recommendations in Principle

In most areas, KH has outlined proposed actions in the recommendations without being too prescriptive regarding the details. Most important is LAWA's commitment to continual improvement and evidence-based management in its quest to be competitive and world class. The recommendations set forth a pathway for implementing change and continual improvements.

The Joint-Administrators, BOAC, and LAWA executives should review each recommendation in Part I and Part II. They should accept the recommendations in principle or modify them as suggested by group consensus or as required to meet specific constraints, such as availability of resources. Each recommendation should be accepted, rejected, or modified; none should be ignored.

The City should request that LAWA's CEO provide feedback regarding LAWA's planned actions regarding the IEA Survey recommendations within 90 days of issuance of the IEA Survey Report.

Step 2: Assign an IEA Project Manager to Monitor Implementation

The importance, scope, and interrelationships of the recommended changes require centralized attention and monitoring to ensure a successful outcome. With the support of LAWA's CEO, LAWA's Internal Audit could be appointed as the IEA Project Manager to handle supervision, coordination, and monitoring of implementation efforts across LAWA Divisions.

Step 3: Appoint Implementation Managers and Develop Implementation Plans

At this point, the final priorities, timelines, and accountabilities can be set. For each recommended change, the IEA Project Manager – in consultation with the LAWA's CEO and executives – should assign an Implementation Manager with responsibility for it. The intent is to suggest ultimate responsibility; certain aspects may be delegated to individuals below the level of the Implementation Manager.

LAWA should also establish the relative priority and timing for implementing each recommendation. All recommendations should be started in the next six months to two years. In most cases:

- Implementation of the recommendations with immediate priority should commence as soon as possible.
- Intermediate priority recommendations can be deferred until action of the higher priority recommendations is under way.
- In some cases, lower priority recommendations may be implemented earlier because they are easy to accomplish and may result in some "quick victories."

- Other high priority recommendations may be implemented later once LAWA has established more of a foundation for success.

The Implementation Managers should prepare an Implementation Plan for each recommendation. Cost implications should be refined at this point, depending on the course of action the LAWA executives and management adopt. Exhibit III.1a displays the kind of information that each Implementation Plan should contain at a minimum.

Exhibit III.1a: Implementation Plan Format

Statement of the Recommendation I.X:		
Source: IEA Survey, Chapter X, page X.		
Implementation Manager with Overall Responsibility:		
Performance Objective (Specific, Measured, Achievable, Relevant, and Timing):		
Priority (High, Medium, Low):		
Action Steps	**Assigned Responsibility**	**Scheduled Start-End Dates**
1.		
2.		
…		
Etc.		

A defined performance objective is a statement of the expected situation or condition after implementation of the recommendation. This objective should serve as a benchmark to measure accomplishment of the associated recommendation.

The IEA Project Manager and appropriate LAWA executives should review and approve each plan.

Step 4: Begin Implementation and Monitor Progress

Once the Implementation Plans are approved, the action steps should begin. Each Implementation Manager should prepare a quarterly, one-page report concerning the progress of each plan (i.e., recommendation) for the IEA Project Manager. In turn, the IEA Project Manager should summarize these quarterly reports for the LAWA CEO and executives, BOAC, Office of the Controller (Controller), and Joint-Administrators. As Implementation Managers identify adjustments necessary to the plans, they should consult with the IEA Project Manager and note the needed adjustments on their progress reports.

KH designed the "LAWA IEA – Implementation Tracking Summary.xlsx," an Excel spreadsheet template for ongoing reporting purposes within LAWA, to the Controller, and with the Joint Administrators. The fields provide basic background and context for each recommendation and are taken directly from the IEA Survey and the Implementation Plans prepared by the Implementation Managers. These fields should remain unchanged once set and agreed upon:

- ***#/Source*** – Chapter and section number from the IEA Survey Report
- ***Area*** – Chapter name from the IEA Survey Report
- ***Recommendation*** – Shortened label for recommendation
- ***Recommendation Description*** – Full recommendation description from the IEA Survey Report
- ***Priority*** – High, Medium, or Low; based on discussions and the Implementation Plan
- ***Accountability*** – Implementation Manager responsible for the recommendation
- ***Performance Objective*** – Specific, measurable outcome for the recommendation from the Implementation Plan
- ***Planned Start*** – Planned start date for first action from the Implementation Plan
- ***Planned Completion*** – Planned completion date for final action from the Implementation Plan

Table III.1b: Planning Fields in LAWA IEA – Implementation Tracking Summary

#/ Source	Area	Recommendation	Recommendation Description	Priority	Accountability	Performance Objective
I.2.3	Strategy and Accountability	Balanced Scorecards	LAWA should implement a Balanced Scorecard (BSC) approach as a performance management system	High	IEA Project Manager	All divisions have BSCs by December 2016

To provide ongoing summary updates, the IEA Project Manager updates the following fields based on the quarterly reports provided by each Implementation Manager. These fields provide the ongoing status updates for each recommendation over time:

- ***Actual Start*** – Actual start date of first action, based on quarterly reports
- ***Actual/Estimated Completion*** – Adjusted estimate or actual completion of final action, based on quarterly reports
- ***Date Updated*** – Last date that an update was provided and entered into the Implementation Tracking Summary
- ***Notes*** – More detailed and qualitative explanations of challenges, progress, updates, etc.

An example of the table is provided below:

Table III.1c: Progress Monitoring Fields in LAWA IEA – Implementation Tracking Summary

Planned Start	Actual Start	Planned Completion	Actual/Estimated Completion	Date Updated	Notes
7/1/16	7/1/16	4/1/17	4/1/17	10/1/16	All divisions have convened working groups that have been trained on BSCs and have begun drafting measurements for BSCs in the provided formatting

For ease of reading, the "Actual/Estimated Completion" field will automatically format based on the updated status compared to the plan, to highlight the need for managerial action, shown in Table III.1d.

KH

Table III.1d: Actual/Estimated Completion Format

Actual/Estimated Completion Formatting	Managerial Action
Complete, on-time or ahead of schedule	No action needed
Incomplete, on-time or ahead of schedule	Ensure on-time completion
Complete, behind schedule	Follow-up to determine why recommendation was not completed to plan
Incomplete, behind schedule	Determine actions or resources needed to improve completion time or quality

There will be instances that the planned completion date will need to be adjusted, avoiding highlighting items as incomplete, when all have agreed that a later date is desirable. The IEA Project Manager will make the adjustments after discussion with the Implementation Manager and reviewing all changes with the executive team and, if necessary, with the Controller and Joint Administrators. Such changes should be done wisely, and not just to move a date a month or two to generate the appearance of compliance.

The LAWA CEO should give an annual oral report to BOAC regarding progress to date in implementing the IEA Survey recommendations. The Joint-Administrators will need to determine what level of involvement they intend to have during the implementation process. At a minimum, they should meet once a year during the first two years of implementation with the LAWA executives to discuss progress to date, "lessons learned," adjustments made, and overall successes and setbacks.

To ensure that the implementation effort results in recommendations that build on each other and toward a better future, LAWA executives need to monitor, track, and evaluate progress in implementing the IEA Survey recommendations on an ongoing basis. As necessary and each year, LAWA executives should make the necessary refinements to achieve the desired outcomes.

# / Source	Area	Recommendation	Recommendation Description	Priority	Accountability: Implementer/Mgr.	Performance Objective	Planned Start	Actual Start	Planned Completion	Actual/Estimated Completion	Date Updated	Notes
2.1	Strategy and Accountability	Strategic Prioritization	LAWA would benefit from a strategic framework for defining priorities, which it could then measure performance	High	CEO							
2.2	Strategy and Accountability	Strategic Budgeting	LAWA should use a more strategic approach to developing its budget	High	CFO							
2.3	Strategy and Accountability	Balanced Scorecards	LAWA should implement a Balanced Scorecard (BSC) approach as a performance management system.	High	CEO							
2.4	Strategy and Accountability	Organizational Structure	LAWA's organizational structure should be designed to reflect its strategic directions.	High	CEO							
3.1	Corporate Social Responsibility	Triple Bottom Line Principles	To ensure Corporate Sustainability, LAWA should embrace Corporate Social Responsibility (CSR) principles.	High	CEO							
3.2	Corporate Social Responsibility	Economic Impact - LA	LAWA can monitor and plan to increase its contributions to the Los Angeles economy	High	New function							
3.3	Corporate Social Responsibility	Economic Development - Local	LAWA should consider additional land use planning and investments to maximize economic development around LAX	High	COO with Planning & Development							
3.4	Corporate Social Responsibility	Environmental Protection & Communication	LAWA should prevent the "big picture" of its environmental impact, while communicating its efforts to the community	High	COO with Environmental Programs Group							
3.5	Corporate Social Responsibility	Community Relations	LAWA must always work on maintaining good external stakeholder relationships.	High	COO with others assisting							
3.6	Corporate Social Responsibility	Gov't Affairs Effectiveness	LAWA should establish goals and measurements for evaluating the effectiveness of government affairs' activities	Medium	Chief Executive Affairs Officer							
3.7	Corporate Social Responsibility	Internal Audit	LAWA may reduce losses and improve performance with a stronger Internal Audit function with BOAC oversight	Medium	COO, Bd/C Chair							
4.1	Guest Experience	Guest Experience Measurements	LAWA should continue its guest experience efforts, tied to BSC performance measurements.	High	Guest Experience Program							
4.2	Guest Experience	Sense of LA & Amenities	LAWA needs to ramp up the sense of LA and its amenities for LAX to be world class.	High	Guest Experience Program							
4.3	Guest Experience	Hospitality & Informed Guests	LAWA should leverage its reputation for hospitality and helping to make it easier for guests to navigate LAX.	High	Guest Experience Program							
4.4	Guest Experience	Safe & Secure	LAWA's highest priority is to ensure that the airports are safe and secure.	High	Chief of Security & Law Enforcement							
4.5	Guest Experience	CTA Congestion	LAWA needs to aggressively manage CTA congestion during and after construction.	High	COO with DEO/OM/EMG & Others							
4.6	Guest Experience	Operations Technology Investment	LAWA should increase its operations technology investments, given anticipated construction-related congestion	High	COO							
4.7	Guest Experience	Maintenance Preventive & Unscheduled	LAWA maintenance should continue its efforts to tackle preventive and unscheduled maintenance.	High	PAVG							

# / Source	Area	Recommendation	Recommendation Description	Priority	Accountability: Implementer/Mgr.	Performance Objective	Planned Start	Actual Start	Planned Completion	Actual/Estimated Completion	Date Updated	Notes
5.1	Capital Improvement Process	Capital Planning, Budgeting, & Forecasting	LAWA should enhance its SAP system to better support capital projects.	High	CFO, DAST Assist							
5.2	Capital Improvement Process	Capital Improvement Plans	LAWA should establish at least 5-year and 10-year Capital Improvement Plans (CIP).	High	CEO with Planning & Development							
5.3	Capital Improvement Process	Capital Program Implementation	LAWA can improve capital program implementation through stronger management readiness and coordinated processes.	High	CEO with DEO/OGS, LAWP, & COMSAC/ATF; Roads							
5.4	Capital Improvement Process	Augmentation Management	Better management of the augmentation staff may lower capital program and project costs.	High	CEO with DEO/OGS, LAWP, & COMSAC/ATF; Roads							
5.5	Capital Improvement Process	Capital Program Staff Alignment	LAWA will need a full complement of capable staff to implement its aggressive capital program.	High	COO with Admin./Human Resources							
5.6	Capital Improvement Process	Procurement RFP Process	Changes in procurement can reinforce LAWA's commitment to a fair and impartial RFP process.	High	COO with Admin./ Procurement							
5.7	Capital Improvement Process	Parking Audit	LAWA should conduct a fiscal and operational audit of parking operations.	High	Internal Audit							
6.1	PMO and ONT Airports	ONT Transition Planning	Effective planning will be key to a successful transition of ONT to another airport authority (DAA).	High	CEO							
6.1.1	BSC Implementation	Develop BSCs	LAWA should develop BSCs and a performance measurement system (builds on Recommendation 2.3)	High	CEO							
6.1.2	BSC Implementation	Financial Metrics	LAWA should designate Finance to manage financial metrics reported in all balanced scorecards (BSC).	Medium	CFO							
6.1.3	BSC Implementation	Refine & Implement BSCs	LAWA should review, refine, adapt, and monitor the Balanced Scorecards (BSC) developed during the IEA Survey.	High	CEO with Executive Team							

# / Source	Area	Recommendation	Recommendation Description	Priority	Accountability: Implementer/Mgr.	Performance Objective	Planned Start	Actual Start	Planned Completion	Actual/Estimated Completion	Date Updated	Notes
2.3	Strategy and Accountability	Balanced Scorecards	LAWA should implement a Balanced Scorecard (BSC) approach as a performance management system	High	CEO	All Bd and non-Bd BSCs	7/1/2008	7/1/08	4/1/2017	4/1/17	10/1/2016	All directors have cascaded their BSCs and trained on BSCs and Performance Dashboard. Will continue to refine BSCs in the provided formatting

Definitions of Column headings:

- **#/Source** – Chapter and section number from IEA Survey Report
- **Area** – Chapter name from IEA Survey Report
- **Recommendation** – Shortened label for recommendation
- **Recommendation Description** – Abbreviated description from IEA Survey Report
- **Priority** – High, Medium, or Low; based on discussions and Implementation Plan
- **Accountability** – Implementation Manager responsible for recommendation
- **Performance Objective** – Specific, measurable outcome for recommendation from the Implementation Plan
- **Planned Start** – Planned start date for final action from Implementation Plan
- **Planned Completion** – Planned completion date for final action from Implementation Plan

Directions:
To provide ongoing summary updates, the IEA Project Manager updates the following fields based on the quarterly reports provided by each Implementation Manager. These fields provide the ongoing status update for each recommendation and action item.

- **Actual Start** – Actual start date of first action, based on quarterly reports.
- **Actual/Estimated Completion** – Adjusted estimate or actual completion of final action, based on quarterly reports
- **Date Updated** – Last date update was provided and entered into Implementation Tracking Summary
- **Notes** – More detailed and qualitative explanations of challenges, progress, updates, etc.

Table: Planning Fields in LAWA IEA – Implementation Tracking Summary

Table: Progress Monitoring Fields in LAWA IEA – Implementation Tracking Summary

For ease of reading, the "Actual/Estimated Completion" field will automatically format based on the updated status compared to the plan, to highlight the need for managerial action, shown below.

Actual/Estimated Completion	Managerial Action
Complete, on-time or ahead of schedule	No action needed
Incomplete, on-time or ahead of schedule	Ensure on-time completion
Complete, behind schedule	Follow-up to determine why recommendation was not completed to plan
Incomplete, behind schedule	Determine actions or resources needed to improve completion time or quality

Assigned to Accountability Organization:	
COO	Chief Executive Officer
CEO	Chief Executive Officer
CFO	Chief Financial Officer
Admin.	Administration Division
AGS	Airports Development Group
Admin.	Administration
FMUG	Facilities Maintenance & Utilities Group
PAVG	Planning, Airport Viability & Development Group (?)
OM/EMG	Operations, Maintenance, & Emergency Management Group

KH CONSULTING GROUP MANAGEMENT CONSULTANTS

Industrial, Economic, & Administrative (IEA) Survey Report of Los Angeles World Airports (LAWA)

Appendices

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APPENDIX A: IEA SURVEY APPROACH

JOINT ADMINISTRATORS

The IEA Survey is administered through a Joint Administration of the Offices of the Mayor, Controller, and Chief Legislative Analyst (CLA) (on behalf of the City Council). The Joint Administrators serve an important role for discussing LAWA's strengths, accomplishments, and opportunities for improvement and ensuring the KH team has identified and investigated the key issues; advising KH about sources within the City to obtain needed data or information; considering the pros and cons of different approaches for addressing identified opportunities for improvement; and furnishing insights regarding constraints, such as the City Charter, Personnel Code, Memoranda of Understanding (MOUs), or other City requirements.

For the 1999, 2008, and 2016 IEA Surveys, the Joint Administrators have invited a LAWA executive to attend these meetings to ensure LAWA was informed of the issues raised and, if needed, have an opportunity to offer more insights regarding the issues. The selected LAWA executive also included LAWA's Internal Auditor. Both had only advisory roles.

OBJECTIVES AND SCOPE

In conducting the 2008 and 1999 IEA Surveys, KH's goal was to expeditiously review LAWA performance and develop strategic recommendations to position LAWA for the future. This IEA Survey differs from these prior IEA Surveys in direction. In Phase I, the Joint Administrators asked the KH team to focus primarily on understanding LAA's performance metrics, considering how they could be applied to:

- Performance-Based Budgeting
- Competitiveness
- Economic Development
- Management of Capital Projects
- Transportation

In Phase II, KH focused on building a framework for a performance management system for improved public accountability. The KH team applied the Balanced Scorecard (BSC) model to performance measurements in four key areas – two strategic and two business oriented:

- **Strategic BSCs that affect external and internal stakeholders:** Corporate Social Responsibility (CSR) and Guest Experiences
- **Internal business operations, affecting all aspects of LAWA:** Administrative Support Areas (Procurement, Human Resources, and Internal Audit) and Finance, Accounting, and Risk Management

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KH also developed recommendations in areas that support better performance in these key areas, including capital planning and budgeting, transportation and access, and competitiveness. KH's focus was primarily on LAWA overall and LAX with some performance measurements developed for VNY.

KH also took into consideration Stated Practices, Actual Practices, Prevailing Practices, Good Practices, and Next Practices. Successful, competitive organizations are striving to anticipate "Next Practices" rather than settle for Prevailing or Best Practices.

TASKS PERFORMED

The KH team performed a broad array of fact-finding and analytical tasks:

Work Planning and Fact-Finding

- Developed Phase I and Phase II Work Plans, which KH reviewed with the Joint-Administrators and LAWA executives
- Reviewed documents
- Conducted more than 85 interviews, including primarily LAWA BOAC, executives, managers, and staff; Los Angeles City officials; union representatives (SEIU and airport police); and other stakeholders
- Documented strengths and accomplishments since the 2008 IEA Survey
- Built on the work of Robert Kaplan and David Norton to adapt Strategy Maps and Balanced Scorecard (BSC) concepts to LAWA

Strategy Maps and Balanced Scorecards Foundation

Performance Measurements

- Surveyed LAWA managers regarding the performance measurements they currently use; 47 out of 53 responded (89% response rate)
- Of the 215 measurements initially identified, compiled the information to indicate:
  - Group/division identifying specific measurements
  - Measurement name and description
  - Data for FY2010-2011 though FY2014-15
  - Target and target priority
  - Frequency Used, Frequency Desired, Difference
  - Use (e.g., financial operations, guest experience, our people, public accountability, community impact)

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  - Linkages to Strategic Plan, Capital Plan, etc.
  - Use by division, LAWA, BOAC, etc.
  - Availability of data (routinely available, requires effort to obtain, not available)
  - Changes in measurement since FY2010-2011
  - Data source
- Completed a gap analysis of missing performance indicators, resulting in an initial list of 600 potential measurements (16% of the potential measurements had reported data points)
- Conducted a series of performance management workshops at LAWA, including 3 with LAWA executives and 12 workshops with working groups focused on finance/accounting, human resources, administration, and guest experience
- Facilitated a series of meetings to identify the best measurements to use, given available data and priorities, and populated data fields where available
- Identified the approach for LAWA to collect data and establish a baseline in the future for the balance of the data fields
- Supported LAWA working groups in preparing their presentations on BSCs to LAWA executives
- Established targets and timing where feasible

Analysis and Reporting

- Identified findings, opportunities, and associated recommendations, focusing on areas that would help improve current performance levels in the studied areas
- Reviewed opportunities with LAWA executives to verify them for completeness and accuracy
- Prepared a Phase I report and a draft IEA Survey Report, which KH reviewed with the Joint Administrators and LAWA executives to ensure accuracy and completeness
- Prepared the final IEA Survey Report (this document)

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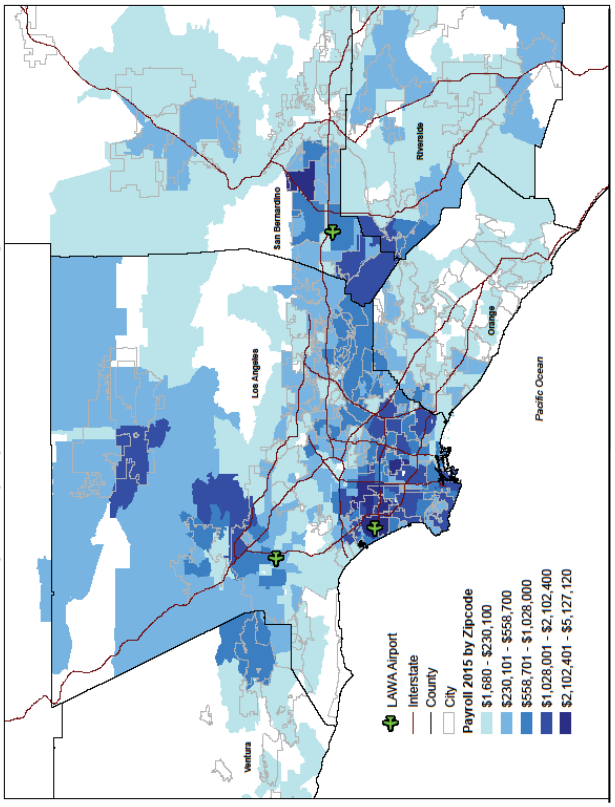
APPENDIX B: GIS MAPS RELATED TO CORPORATE SOCIAL RESPONSIBILITY (CSR)

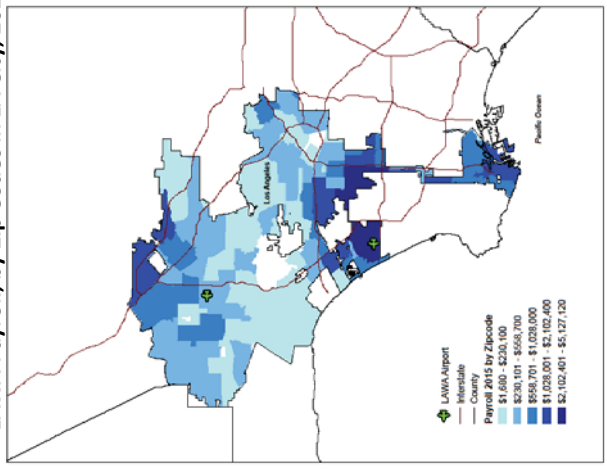
Chapter I.3 on CSR presented the GIS information for the County of Los Angeles. The following GIS maps focus on the data for the boundaries of the City of Los Angeles and the SCAG region.

Distribution of Labor Income
LAWA Payroll, by Zip Codes in SCAG Region, 2015



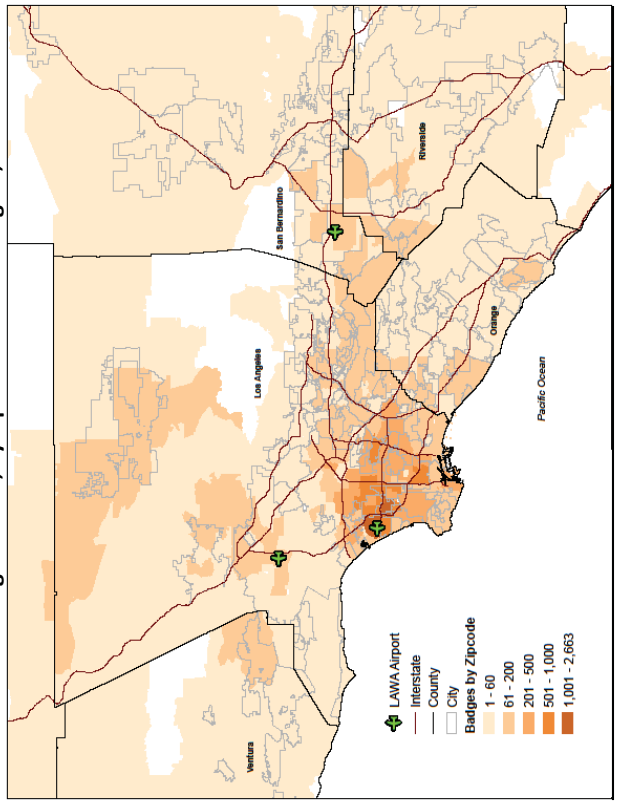
Source: GIS map compiled by KH Consulting Group (KH) team members, Metropolitan Research and Economics (MR+E), Civic Projects, Inc., GIS West Consulting, using LAWA payroll, by zip code, data, December 2015.

Distribution of Labor Income
LAWA Payroll, by Zip Codes in LA City, 2015



Source: GIS map compiled by KH Consulting Group (KH) team members, Metropolitan Research and Economics (MR+E), Civic Projects, Inc., GIS West Consulting, using LAWA payroll, by zip code, data, December 2015.

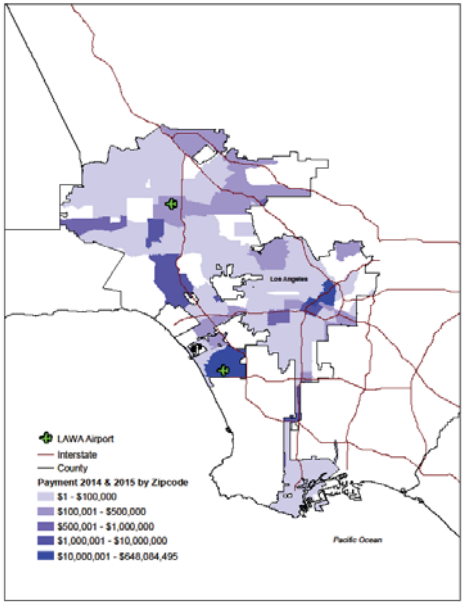
Distribution of Airport Workers
LAWA Badges Issued, by Zip Codes in SCAG Region, 2015



Source: GIS map compiled by KH Consulting Group (KH) team members, Metropolitan Research and Economics (MR+E), Civic Projects, Inc., GIS West Consulting, using LAWA payroll, by zip code, data, December 2015.

LAWA Purchases

LAWA Accounts Payable Paid, by Zip Codes in LA City, 2014 & 2015

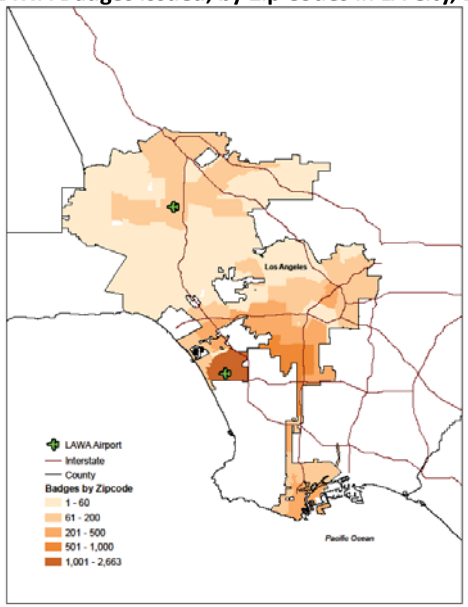


Source: GIS map compiled by KH Consulting Group (KH) team members, Metropolitan Research and Economics (MR+E), Civic Projects, Inc., GIS West Consulting, using LAWA payroll, by zip code, data, December 2015.

LAMP-AL00008

Distribution of Airport Workers

LAWA Badges Issued, by Zip Codes in LA City, 2015

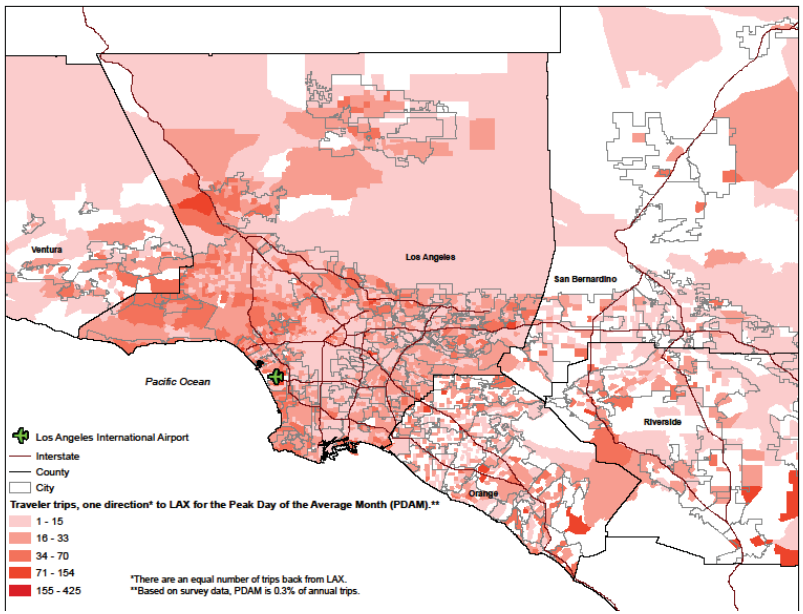


Source: GIS map compiled by KH Consulting Group (KH) team members, Metropolitan Research and Economics (MR+E), Civic Projects, Inc., GIS West Consulting, using LAWA payroll, by zip code, data, December 2015.

LAMP-AL00008

Land Use – One-Way Trips to LAX

2012 Traveler Trips in One Direction to LAX for the Peak Day of the Average Month – SCAG Region

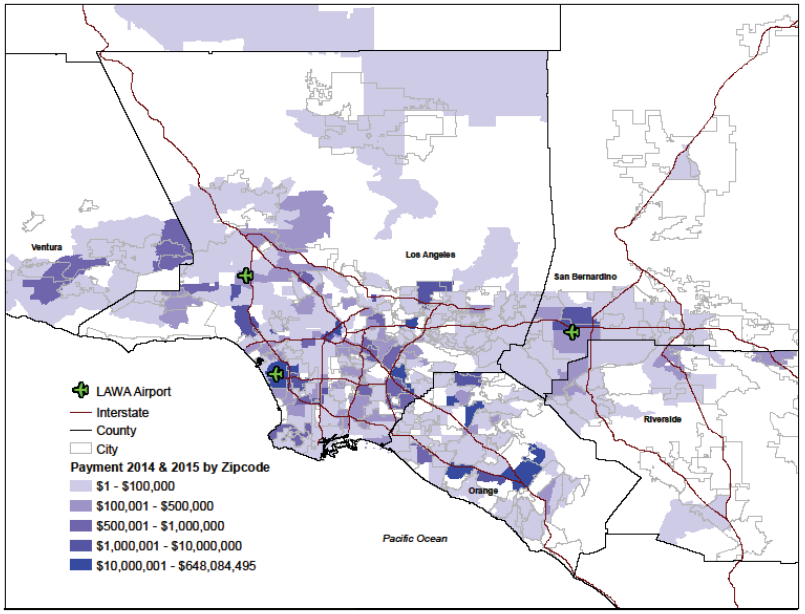


Source: Southern California Association of Governments (SCAG) data, 2012. GIS map compiled by KH Consulting Group (KH) team members, Metropolitan Research and Economics (MR+E), Civic Projects, Inc., GIS West Consulting, January 2015.

LAMP-AL00008

LAWA Purchases

Accounts Payable Paid, by Zip Codes in SCAG Region 2014 & 2015

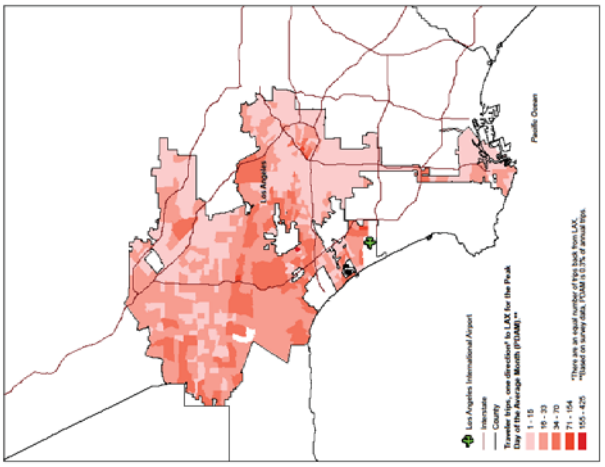


Source: GIS map compiled by KH Consulting Group (KH) team members, Metropolitan Research and Economics (MR+E), Civic Projects, Inc., GIS West Consulting, using LAWA payroll, by zip code, data, December 2015.

LAMP-AL00008

Land Use – One-Way Trips to LAX

2012 Traveler Trips in One Direction to LAX for the Peak Day of the Average Month – LA City



Source: Southern California Association of Governments (SCAG) data, 2012. GIS map compiled by KH Consulting Group (KH) team members, Metropolitan Research and Economics (MR+E), Civic Projects, Inc., GIS West Consulting, January 2015.

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APPENDIX C: ACRONYMS & TERMINOLOGY

This Appendix defines acronyms, followed by airport codes, used in the IEA Survey report.

ACRONYMS

Acronym	Description or Definition
9/11	September 11, 2001 terrorist attacks
A380	Airbus 380
AA/EEO	Affirmative Action/Equal Employment Opportunity
ACH	Automated Clearing House
ACI	Airport Council International
ADA	Americans with Disabilities Act
AFE	Authority of Expenditures
AIP Grants	Airport Improvement Program Grant fund established by the Airport and Airways Improvement Act (AAIA) of 1982. Airport Improvement Program (AIP) grants are funded by Federal aviation user taxes. Grant monies can be either discretionary or entitlement grants depending on the use and restrictions.
Airside	The airfield, gates, jet ways, and other facilities associated with the movement of aircraft. "Airside" often refers to all facilities beyond the passenger security screen although the distinction differs from airport to airport.
ALPA	Air Line Pilots Association, International
ALUC	Airport Land Use Commission
APM	Automated People Mover, a new light rail system LAWA plans to build
apron	The paved area leading from the terminals to the taxiways and runways. For purposes of our report, the terms "ramp" and "apron" are used interchangeably.
AQMP	Air Quality Management Plan
ARB	State of California Air Resource Board
ARFF	Airport Rescue and Firefighting
ATA	Air Transport Association
ATC	Airport Transit Connector
AVI	Automatic Vehicle Identification
aviation revenue	Revenues generated from landing fees and related aircraft, cargo, or passenger fees.
AVR	Average Vehicle Ridership
BAGS	Baggage Airline Guest Services
BOAC	Board of Airport Commissioners. LAWA operates under the management and control of a five-member (seven under the new City Charter) Board of Airport Commissioners, who are appointed by the Mayor and approved by the City Council.
BOAC Commissioners	Those individuals who serve on the Board of Airport Commissioners.
BOAC President	President of the Board of Airport Commissioners
BSC	Balanced Scorecard
CAC	Citizen Advisory Council

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Acronym	Description or Definition
CALM	Construction & Logistics Management team at LAX
Caltrans	State of California, Department of Transportation
CAO	Los Angeles City Administrative Officer. The CAO is the chief financial advisor to the Mayor and the City Council and reports directly to both.
CBA	Community Benefits Agreement
CBP	United States Customs Service – Customs Border Patrol
CCT	Closed-Circuit Television
CDG	Commercial Development Group at LAWA
CEQA	California Environmental Quality Act
CFO	Chief Financial Officer
CFR	Code of Federal Regulations
CFR	Crash-Fire-Rescue operations at ONT
CIO	Chief Information Officer
CIP	Capital Improvement Plan
City (the)	City of Los Angeles
City Attorney	The City Attorney is attorney and legal advisor to the City of Los Angeles, a municipal corporation, and the City Council, all officers, boards, and departments. The City Attorney provides LAWA with Legal Services that are housed at and paid for by LAWA.
City Controller	The City's chief accounting and auditing officer.
City Council	City Council of Los Angeles
City Personnel Department	Centralized human resources services for the City of Los Angeles. LAWA is subject to all Personnel Department policies and programs, including Civil Service rules.
City Treasurer	The custodian of all funds of the City and affiliated entities, including LAWA.
CLA	Los Angeles Chief Legislative Analyst. The Office of the CLA provides staff support to the City Council and its various committees.
CNEL	Community Noise Equivalent Level
CNG	Compressed Natural Gas
commercial air carriers	Private companies licensed by the U.S. Government to operate aircraft between cities to carry passengers and freight for profit.
Compensatory Landing Fees	Rate-making methodology based on recovery of costs allocable to the particular facilities occupied or used.
connecting traffic	The number of airport enplanements or percentage thereof, who pass through the airport to a separate destination, and thus use the airport as a transfer point to change planes. See also: hub airport.
CONRAC	Consolidated Rent-a-Car Center, a new facility that LAWA plans to build
COO	Chief Operating Officer
CTA	Central Terminal Area at LAX
CUP	Central Utility Plant at LAX
CUTE	Common Use Terminal Equipment
CY	Calendar Year
dB	decibels

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Acronym	Description or Definition
DBB	Design-Bid-Build
DBFOM	Design-Build-Finance-Operate-Maintain
debt per enplaned passenger	Net funded debt divided by total enplaned passengers. A measure of leverage and relative indebtedness.
Discretionary AIP Grants	AIP grant monies available on a project-specific basis. Generally carry fewer restrictions than entitlement grants.
discretionary funds	Leftover revenues to be used by the airport authority at their discretion. Discretionary funds can be considered the authority's "profit."
DOA	City of Los Angeles Department of Airports, a proprietary department of the City (also known as Los Angeles World Airports (LAWA))
DOC	Department Operations Center, LAWA's emergency operations center
dominant carrier	The air carrier handling the highest percentage of total enplanements at a particular airport.
dotted-line reporting	The secondary (higher-level) supervisor to whom an
EDS	Explosive Detection Systems
EEO/AA	Equal Employment Opportunity/Affirmative Action
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
enplanements	A measure of airport utilization based upon the total number of revenue passengers boarding an aircraft at a given airport.
enterprise agency	A governmental agency, which is predominantly fee supported. Examples include airports, harbors, water utilities, etc.
EOC	Emergency Operations Center
EPA	U.S. Environmental Protection Agency. This Federal agency is charged to protect human health and safeguard the natural environment – air, water, and land.
EPAX	Enplaned Passengers
FAA	The Federal Aviation Administration, an agency of the U.S. Department of Transportation. The FAA was created by the Federal Aviation Act of 1958 and its mandates include aviation safety, navigational aids, and air traffic control. Through its sizable grant programs and regulatory authority, the FAA exercises considerable influence over the planning and development of individual airports.
FAMIS	Finance, Accounting, and Management Information System, LAWA's term for the SAP application installed in 2001
FAR	Federal Aviation Regulation
FBO	Fixed Base Operation. A ground-based operation, such as a hangar, fueling facility, catering kitchen, etc.
FEIR	Final Environmental Impact Report
FTE	Full-Time Equivalent
GA	general aviation
GARB	General Airport Revenue Bond, the most common form of airport authority indebtedness.
GDP	Gross Domestic Product

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Acronym	Description or Definition
GENPS	Goods, Equipment, and Non-Professional Services
GHG	Greenhouse Gas
GIS	Geographic Information System
GPI	Genuine Progress Indicators
GTC	Ground Transportation Center
guest	A passenger or an individual who is meeting or dropping off a passenger at LAX (also referred to as "meeters and greeters")
Harbor Department	The port operations in the City of Los Angeles
HAZMAT	Hazardous materials
HR	human resources
hub airport	A hub airport predominantly handles connecting passengers rather than Origination and Destination (O&D) traffic. LAX is not a domestic hub airport, although it serves as a critical connection for trans-Pacific flights.
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IEA Survey	Industrial, Economic, and Administrative Survey, a performance review mandated by City Charter (this study)
IP	Internet Protocol
IT	Information technology
ITC	Intermodal Transportation Center
itinerant carrier	A seasonally operated airline or an infrequent user of an airport.
Joint-Administrators	The IEA Survey is joint-administered by representatives from the Offices of the Mayor, Chief Legislative Analyst (CLA), and City Controller.
KH	KH Consulting Group, a Los Angeles-based management consulting firm; the primary contractor for this IEA Survey
KH Team	Includes all the KH and subcontractor consultants who worked on the IEA Survey.
KPI	Key Performance Indicator. KPIs are the critical measurements of success: financial performance, process improvement, or customer satisfaction.
LA	Los Angeles
LA Metro	Los Angeles County Metropolitan Transit Authority. This Authority is the primary provider of transit-related services for the Southern California region.
LA/ONT	The marketing name LAWA uses for Ontario International Airport (ONT).
LA/PMD	The marketing name LAWA uses for Palmdale Regional Airport (PMD).
LA/VNY	The marketing name LAWA uses for Van Nuys Airport (VNY).
LABVN	Los Angeles Business Virtual Network
LADOT	Los Angeles City, Department of Transportation
LADWP	Department of Water and Power in the City of Los Angeles
LAFD	Los Angeles Fire Department. LAFD provides crash, fire, and rescue (CFR) services to LAWA at LAX and VNY.
LAMP	Landside Access Modernization Program

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Acronym	Description or Definition
landed ton	A landed ton is one thousand pounds of aircraft landing at an airport. Landing fees are generally calculated based on landed tons as determined by the certified landing weight of each type of aircraft.
landside	That portion of airport facilities devoted to the main terminal complex, ground transportation, and movement of passengers and baggage away from aircraft areas. Although the distinction differs from airport to airport, landside is often considered as all the terminal facilities up to the passenger security screen.
LAPD	Los Angeles Police Department
LAUSD	Los Angeles Unified School District
LAWA	Los Angeles World Airports (also known as the City of Los Angeles Department of Airports (DOA), a proprietary department of the City). DOA owns and manages four airports: Los Angeles International (LAX), Ontario International (ONT), Van Nuys Airport (VNY), and Palmdale Airport (PMD).
LAWA – ADG	LAWA's Airports Development Group
LAWA - COO	Chief Operating Officer
LAWA - CPPEG	LAWA's Capital Programming, Planning & Engineering Group
LAWA - CUP	Central Utility Plant
LAWA – ELUP	Environmental & Land Use Planning
LAWA – FMUG	Facilities Maintenance & Utilities Group
LAWA – IMTG	LAWA's Information Management & Technology Group
LAX	Los Angeles International Airport (IATA airport code)
LAX Modernization Program	The first comprehensive modernization plan for LAX in more than 20 years; it included such projects as the Midfield Satellite Concourse, adapted gates at TBIT for wide-body A380 aircraft, and related projects, such as taxiways, tunnels, aircraft ramp areas, utility improvements, etc.
LAXAAC	Los Angeles International Airport Area Advisory Committee – a citizen advisory group for LAX
LEA	Law Enforcement Agency
LEA Assist	Law Enforcement Agency assistance, i.e., could include almost any action, such backing up a City police unit on a vehicle stop, transporting a prisoner and escort to an aircraft for extradition, etc.
LEED	Leadership in Energy and Environmental Design
LOA	Leave of Absence
load factors	Percentage of passenger seats filled
LOI	Letter of Intent
LRT	Light Rail Transit
LSBE	Local Small Business Enterprise
LUMP	Land-Use Mitigation Program
MAP	Million Annual Passengers (enplaning + deplaning)
Maximo	Maintenance software used at LAWA
MBE	Minority Business Enterprise
meeters and greeters	Individuals who meet or drop off passengers at LAX

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Acronym	Description or Definition
MMRP	Mitigation Monitoring and Reporting Program
MOA	Memorandum of Agreement
Moody's	A bond rating agency
MoS	Memorandum of Support
MOU	Memorandum of Understanding
MPC	Mobile Passport Control app
NA	Not applicable
NCP	Noise Compatibility Program
NEPA	National Environmental Policy Act
NIGP	National Institute of Government Purchasing
NLAMP	New Los Angeles Marketing Partnership
non-aviation revenue	Revenue generated from concessions, parking, terminal services, etc.
NOP	Notice of Preparation
O&D	Origination and Destination (O&D) traffic consists of an airport's passengers, which begin or end a journey at that airport (as opposed to connecting passengers). LAX is predominantly an O&D airport.
OCIP	Owner-Controlled Insurance Program
Office of the Mayor	As the executive officer of the City, the Mayor exercises supervision over all City affairs. In addition to appointing the Airport Commissioners, the Mayor has additional responsibilities for overseeing LAWA.
ONT	Ontario International Airport (IATA airport code); also referred to as LA/ONT in LAWA marketing materials
operating agreement	An agreement between an airport and an airline which establishes rates and fees, and the rights and duties of each party. Airlines which sign operating agreements are referred to as "signatory airlines" or "signatories."
PARCS	Parking Access Revenue Control System
PAX	Passenger
PC	Personal Computer
Personnel Department	The Personnel Department provides resources services in accordance with the Civil Service system for the City of Los Angeles
PFC	Passenger Facility Charges (PFCs) are a per passenger assessment levied by individual airports. PFCs are a relatively recent financing innovation approved by the FAA on an airport by airport basis.
Planning Department	The City Planning Department guides the City's land use development and infrastructure financing decisions by a series of planning documents, which address population distribution, traffic circulation, public facilities, location of housing, commercial and industrial facilities, protection of the natural environment, and the health, welfare, and safety of the general public.
PMD	Palmdale Regional Airport (IATA airport code); also referred to as LA/PMD in LAWA marketing materials.
Port of Los Angeles	Harbor Department in the City of Los Angeles
PTS	Procurement Tracking System

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Acronym	Description or Definition
RAIC	Regional Airport Improvement Corporation. A consortium of airlines which finance airport infrastructure through issuance of special facility lease revenue bonds. Six of the eight terminals at LAX are financed by RAICs.
ramp	The area where aircraft are serviced immediately adjacent to the terminal. For purposes of our report, the terms "ramp" and "apron" are used interchangeably.
RAMS	Revenue Asset Management System
refunding	A procedure whereby a bond issuer refinances an outstanding bond issued by issuing new bonds.
Residual landing fees	Rates based on recovery of net cost of a cost center or an airport as a whole, after allowing credit for concession and other non-airline revenues.
RFB	Request for Bid
RFI	Request for Information
RFP	Request for Proposal
RFQ	Request for Qualification
ROI	Return on Investment
ROW	Right of Way
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
RTPA	Regional Transportation Planning Agency
S&P	Standard and Poor's, a bond rating agency
SAIP	South Airfield Improvement Project
SANBAG	San Bernardino Associated Governments
SAP	Financial software used at LAWA. SAP is the corporate name for what was formerly Systems Applications and Products. SAP provides LAWA's accounting, financial reporting, materials management, and human resources software.
SBE	Small Business Enterprise
SCAG	Southern California Association of Governments. This organization is a regional planning agency and a Council of Governments comprised of 184 cities in six counties, which promote growth, personal well-being, and livable communities for all Southern Californians.
SCAQMD	South Coast Air Quality Management District. This district is responsible for air pollution control for the four-county region, including Los Angeles and Orange counties and parts of Riverside and San Bernardino counties.
SEIR	Supplemental Environmental Impact Report
signatory airline	An airline which has signed an operating agreement at a particular airport. Most large carriers are "signatories."
SLBE	Small Local Business Enterprise
solid-line reporting relationship	Primary supervisor for day-to-day management
SPARTA	Service Providers and Artisan Tradesman Activities
SPAS	Specific Plan Amendment Study
SPIMS	Sustainability Performance Improvement Management System

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Acronym	Description or Definition
T-#	Terminal number (as in Terminal 5 = T-5)
TBIT	Tom Bradley International Terminal
TSA	Transportation Security Administration
UPS	United Parcel Services
USCS	United States Customs Service
USDOT	United States Department of Transportation. The Aviation Consumer Protection Division of the U.S. Department of Transportation processes consumer concerns and complaints pertaining to air carriers.
USGBC	United States Green Building Council
UTAHS	Underground Tanks and Hazardous Substances
VC, HO	Payroll Codes: (Vacation, Holiday)
VMT	Vehicle Miles Driven
VNY	Van Nuys Airport (IATA airport code); also referred to as LA/VNY in LAWA marketing materials.
WBE	Woman Business Enterprise

IATA AIRPORT CODES

IATA Airport Code	Airport
AMS	Amsterdam Airport
ATL	Atlanta Hartsfield-Jackson Airport
BOS	Boston Logan International Airport
BUR	Burbank-Glendale-Pasadena Airport (Bob Hope)
BWI	Baltimore/Washington International Thurgood Marshall Airport
CDG	Paris Charles de Gaulle Airport
DCA	Ronald Reagan Washington International Airport
DEN	Denver International Airport
DFW	Dallas/Fort Worth Airport
DTW	Detroit Airport
EWR	Newark Airport
FRA	Frankfurt Airport
HKG	Hong Kong International Airport
HND	Tokyo Haneda International Airport
IAD	Dulles International Airport
IAH	Houston George Bush Intercontinental Airport
JFK	New York John F. Kennedy International
LAX	Los Angeles International Airport
LGA	La Guardia Airport – New York City, NY
LGB	Long Beach Airport
LHR	London Heathrow Airport
MIA	Miami International Airport
MSP	Minneapolis Saint Paul International Airport

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IATA Airport Code	Airport
OAK	Oakland International Airport
ONT	Ontario International Airport
ORD	Chicago O'Hare Airport
PHX	Sky Harbor International Airport – Phoenix, AZ
PIT	Pittsburgh International Airport
PMD	Palmdale Regional Airport
SEA	Seattle/Tacoma International Airport
SFO	San Francisco International Airport
SIN	Changi Airport – Singapore
VNY	Van Nuys Airport

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APPENDIX D: ADDITIONAL METRICS

Appendix D contains additional metrics that LAWA might consider in two specific areas – Environmental Responsibility and Guest Experience – as it develops a more complete performance measurement system.

ENVIRONMENTAL RESPONSIBILITY

Table D.1 displays the breadth of measurements considered in developing the Environmental Responsibility BSC in Chapter II.2.

Table D.2: Potential Measurements – Environmental Responsibility

Measurement Label & Description – Environmental Responsibility
Green Buying
$ consumable products purchased that meet IFMA environmental standards or equivalent
% consumable building supplies purchased that meet IFMA environmental standards or equivalent
# suppliers engaged in Extended Producer Responsibility (EPR) and resource recovery
# non-recyclable products
% non-recyclable products
# "Sustainable Lease Agreements" based on Model of Port
# environmental compliance audits completed
Water Conservation
water reused
% water reused
# (amount) potable water used.
# imported water
% imported water
# locally sourced water
# water recycled
% water recycled
% water locally sourced
# storm water capture
% storm water capture
# sewer spills
% on-schedule shutdowns of water utility
# unscheduled water shutdowns of water utility
% landscape acreage with drought resistant plants, artificial turf, and rock in landscape
# average hours to respond to failed automated valves and faucets
% overall reduction in water usage compared to base year, using California water reduction standards

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Measurement Label & Description – Environmental Responsibility
repairs and replacements of outmoded plumbing
gallons of water loss in the cooling tower operation through more efficient means of rejecting heat
gallons of water used per PAX in terminals
gallons of water used in irrigation systems
gallons water used LAWA
gallons of water used LAX
% of target - gallons of water used
% compliance with California IGP on storm water pollution prevention
# gallons runoff water exceeding pollution standards
% compliance with California IGP on storm water pollution prevention
# gallons total Potable Water consumed LAX
# gallons total Potable Water consumed VNY
# gallons total Potable Water consumed ONT
$ Potable Water LAX
$ Potable Water VNY
$ Potable Water ONT
# gallons Reclaimed water consumed LAX
# gallons Reclaimed water consumed VNY
# gallons Reclaimed water consumed ONT
# acres Drought tolerant area LAX
# Total landscape area, acres LAX
# Landscaped area using reclaimed water LAX
# acres drought tolerant area VNY
# acres total landscape area VNY
# acres drought tolerant area ONT
# acres total landscape area ONT
% Converted to computer internet based controlled irrigation LAX
# acreage Converted to computer internet based controlled irrigation LAX
$ for each irrigation module LAX
# gallons recycled Fleet maintenance car wash LAX
# gallons recycled for Fleet car wash VNY
# gallons recycled for Fleet car wash VNY
# gallons recycled Tenant Rental Car wash
$ savings using reclaimed water
Noise
sound insulation completed El Segundo

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Measurement Label & Description – Environmental Responsibility
sound insulation completed City of Los Angeles
sound insulation completed City of Van Nuys
sound insulation completed County of LA
sound insulation completed Inglewood
sound insulation completed Inglewood
sound insulation completed Total LAWA
% sound insulation completed El Segundo
% sound insulation completed City of Los Angeles
% sound insulation completed City of Van Nuys
% sound insulation completed County of LA
% sound insulation completed Inglewood
% sound insulation completed ONT
% sound insulation completed Total LAWA of 32,485 eligible
$ home sound insulation City Los Angeles
$ home sound insulation Inglewood
$ home sound insulation El Segundo
$ home sound insulation County Los Angeles
$ payment for sound insulation Los Angeles by FAA
$ payment for sound insulation Inglewood by FAA
$ payment for sound insulation El Segundo by FAA
$ payment for sound insulation County Los Angeles by FAA
$ payment for sound insulation City Los Angeles by LAWA
$ payment for sound insulation Inglewood by LAWA
$ payment for sound insulation El Segundo by LAWA
# homes insulated through Sound Insulation Grant (SIG) program
$ awarded for Sound Insulation Grant (SIG) program
$ payment for sound insulation
# LAX early turns exceeding noise threshold by aircraft type
# VNY early turns exceeding noise threshold by aircraft type
# LAX east departures exceeding noise threshold by aircraft type
# LAX noise complaints by aircraft type
# VNY noise complaints by aircraft type
# LAX aircraft exceeding noise threshold by aircraft type
# ONT aircraft exceeding noise threshold by aircraft type
# VNY aircraft exceeding noise threshold by aircraft type
# VNY aircraft exceeding noise threshold by aircraft type

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Measurement Label & Description – Environmental Responsibility
# LAX early turns exceeding noise threshold
# VNY early turns exceeding noise threshold
# LAX east departures exceeding noise threshold
# LAX noise complaints
# VNY noise complaints
# ONT noise complaints
# LAX noise complaints/10000 departures
# VNY noise complaints/10,000 departures
# ONT noise complaints/10,000 departures
# monthly noise complaint reports (LAX & VNY)
# monthly LAX east departure reports
# monthly VNY quieter departure reports
# quarterly LAWA noise reports
$ spent on noise reduction insulation
# residents LAX within incompatible area =/>65 CNEL
# residents within incompatible area =/>65 CNEL VNY
# residents within incompatible area =/>65 CNEL ONT
# Homes located within 65dB CNEL LAX w/ installed insulation
# VNY Homes located within 65dB CNEL w/ installed insulation
# ONT Homes located within 65dB CNEL w/ installed insulation
# noise complaints LAX
# noise complaints VNY
# noise complaints ONT
# noise contours LAX
# noise contours VNY
# noise contours ONT
# noise monitoring stations LAX
# noise monitoring stations VNY
# noise monitoring stations ONT
Fly Friendly Awards
% Aircraft compliance w/ noise reduction
# residents LAX within incompatible area =/>65 CNEL
# residents within incompatible area =/>65 CNEL VNY
# residents within incompatible area =/>65 CNEL ONT
# Homes located within 65dB CNEL LAX w/ installed insulation
# VNY Homes located within 65dB CNEL w/ installed insulation

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Measurement Label & Description – Environmental Responsibility
ONT Homes located within 65dB CNEL w/ installed insulation
% complete Noise Mitigation of Places of Worship per CBA
% complete Lennox School District Sound Attenuation per CBA
% complete Inglewood School District Sound Attenuation Per CBA
# Nighttime Departures
# Eastbound Departures
Energy Stewardship
$ Electricity Total LAX
$ Total cost electricity VNY
$ Total cost electricity ONT
$ Total cost natural gas LAX
$ Total cost natural gas VNY
$ Total cost natural gas ONT
$ Utility costs avoided LAX
$ Utility costs avoided VNY
$ Utility costs avoided ONT
# Volume Vehicle Energy CNG LAX
$ vehicle energy CNG LAX
# Volume vehicle energy LNG LAX
# Vehicle energy LNG LAX
# Volume vehicle energy propane
$ Vehicle energy propane LAX
# Volume Vehicle energy, Unleaded Gas LAX
$ Vehicle energy, Unleaded Gas LAX
# Volume Vehicle energy, Diesel LAX
$ Vehicle energy, Diesel LAX
# gallons total Vehicle energy (diesel) VNY
# gallons total Vehicle energy (unleaded) VNY
# Total Vehicle energy (CNG, LNG, Propane, Unleaded, Diesel) LAX
# gallons Total liquid fuel gallons/gas consumed VNY
# gallons Total liquid fuel gallons/gas consumed ONT
$ Vehicle energy LAX
$ Vehicle energy VNY
$ Vehicle energy ONT
# SF structures with Indoor space LAX
# SF structures with Indoor space VNY

KH

Measurement Label & Description – Environmental Responsibility
structures with internal space data ONT
SF structure with internal space data
MM Indoor space energy usage, CTA (HNTB 2013/2014), kWh
Total EV charging stations
EV charging stations, FlyAway
% Renewable energy generated on-site
# kWh Green power purchase
$ Green power purchase
% Green power purchase total electricity
# units replaced; savings/unit; annual hours of operation for MSD Retrofit/efficiency
# units replaced; savings/unit; annual hours of operation MSD Parking lot lamp LED upgrades
# units replaced; savings/unit; annual hours of operation Tenant efficiency projects
Retrofit/efficiency projects list of energy conservation actions
sf Building automation systems at admin & safety base retrofit
% retrofit to LED 851 taxiway edge lights; 20% of 344 in-pavement runway guard lights; and,
% retrofit to LED 344 in pavement runway guard lights;
% retrofit to LED of 192 airfield signs.
% Total LAX CUP GHG emissions reduction due to Replacement
# tons LAX CA Cap and Trade Total offset emissions (GHG and AQ) in tons
# tons GHG and AQ report total offset emissions per RECLAIM report
Greenhouse Gas/Vehicle Miles Traveled (GHG/VMT)
#GHG LAWA
#GHG Airfield ONT
#GHG Airfield LAWA
#GHG Airfield LAX
VMT (Vehicle Miles Travelled) LAWA Cars
VMT LAX Cars
VMT ONT Cars
VMT VNY Cars
GHG LAWA Cars
GHG LAX Cars
GHG ONT Cars
GHG VNY Cars
VMT (Vehicle Miles Travelled) LAWA Transit
VMT LAX Transit
GHG LAX Transit

KH

Measurement Label & Description – Environmental Responsibility
VMT LAX Goods Movement
VMT ONT Goods Movement
VMT VNY Goods Movement
GHG LAWA Goods Movement
GHG LAX Goods Movement
GHG ONT Goods Movement
GHG VNY Goods Movement
average vehicle minutes curb dwell time X average greenhouse gas emissions per car per minute
#GHG Buildings LAWA
#GHG Buildings LAX
#GHG Buildings ONT
#GHG Buildings VNY
Air Quality
LAWA autos
LAWA buses
LAWA pickups
alternate fuel vehicle total LAX
alternate fuel vehicle CNG LAX
alternate fuel vehicle Electric LAX
alternate fuel vehicle Propane LAX
alternate fuel vehicle Bio-fuel LAX
alternate fuel vehicle Hybrid LAX
LAX Single Occupancy Vehicle (SOV) trips per day
alternate fuel VNY vehicles
one-way trip average mile distance (LAX employees)
carbon dioxide LAX emissions - stationary sources (buildings) MTCO2
greenhouse gas emissions, MTCO2 Vehicles
FlyAway routes
FlyAway PAX
Flyway average daily ridership
reduced/day vehicle trips
FlyAway miles traveled per day
FlyAway trips
FlyAway emissions reduced per day
M VMT (miles) reduced VMT through LAWA Rideshare program
gallons fuel saved Rideshare LAWA

KH

Measurement Label & Description – Environmental Responsibility
% SOV Rideshare
% Van Rideshare
% Transit Rideshare
% Carpool Rideshare
% Bike/Walk Rideshare
# CO2 Rideshare emission reduction in M lbs.
# LAX's 141 gates with PCA preconditioned air
% LAX's 141 gates with PCA preconditioned air
# reduced emissions from LAX gates with PCA preconditioned air
# LAX gates with 400 Hz power
# LAX's 141 gates with400 Hz power (benefit)
# kWh Charging stations LAX
# charging stations LAX (emissions benefit)
# airline biofuel (United)
# solar power (program)
# LAWA Air Apportionment (2013 story)
# average vehicle minutes curb dwell time LAX
# CO criteria pollutant
# NOx criteria pollutant
# SO2 criteria pollutant
# PM2.5 criteria pollutant
# CO regulated pollutant
# NO2 regulated pollutant
# SO2 regulated pollutant
# VOC regulated pollutant (x55 types)
# Winter Ultrafine Particles
# Summer Ultrafine Particles
# VOC and PM emissions from Jet fuel, gas, diesel
# VOC and PM emissions from jet fuel
# VOC and PM emissions from gas
# VOC and PM emissions from diesel
$ LAWA sets aside for Air Quality Funds
X average greenhouse gas emissions per car per minute LAX
Materials & Resources
waste produced
% waste stays in LA County

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Measurement Label & Description – Environmental Responsibility
tons organic waste collected
tenant waste recycled
% tenant waste recycled
% solid waste diverted through recycling
% total solid waste generated by LAWA and all tenants that is recycled (minimum of 50% set)
# waste stream diverted from going to landfill
# tons recycled cardboard, mixed paper LAX
# copiers with double-sided printing LAX
# tons diverted Source Reduction LAX
# tons plastic recycled LAX
# tons glass recycled LAX
# tons metal recycled LAX
# tons recycled wood (pallet and green materials) LAX
# tons reused wood (pallets) LAX
# tons green materials recycled
# tons biomass zoo donation: formula of 600lbs/cy of loose leaves and green materials
# tons tires recycled LAX
# tons food diverted LAX
# tons electronics diverted LAX
# tons recycled electronics LAX
# tons other recycled LAX
# tons furniture diverted: 1 ton reused/2 weeks and 2 tons donated/2 weeks
% Total Waste Diversion Rate
# Municipal Solid Waste Total tons to landfill/incinerator LAX
# tons Municipal Solid Waste to landfill/incinerator VNY
# tons Municipal Solid Waste Total to landfill/incinerator ONT
# tons recycled Municipal Solid Waste LAX, excluding construction concrete recycling
# tons Municipal Solid Waste VNY
# tons Municipal Solid Waste ONT
# tons diverted Hazardous Waste, including Universal waste
# tons Tenant Recycling LAX
# tons Tenant Municipal Solid Waste LAX
# Construction & Demolition material LAX
# tons landfill/incinerator VNY
# tons Construction & Demolition material landfill
% recycling of construction debris

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Measurement Label & Description – Environmental Responsibility
recycling of construction debris
tons recycled Construction and demolition debris
tons Construction & Demolition material recycled VNY
tons recycled Construction & Demolition material ONT
asphalt
tons recycled Master Plan Construction Concrete Recycling LAX (includes rock, concrete, and asphalt)
% MSD Procurement contracts with sustainability clauses LAX
% IMTG Procurement contracts with sustainability clauses LAX
# custodial supplies (green products) LAX
$ custodial supplies (green products) LAX
$ custodial supplies (conventional products) LAX
% custodial supplies (conventional products) LAX
% sustainability clauses in procurement contracts
% waste stays in LA County
# tons waste stays in LA County
Green Construction
LEED certified buildings (CUP)
% total square footage LEED certified buildings
# sf area permeable pavement LAX
# projects LAGBC Tier 1
# sf area LAGBC Tier 2
Natural Resources
acres El Segundo Blue Butterfly Habitat conserved (Buckwheat)
El Segundo Blue Butterfly individuals (average)
tarplants LAX
acacia & ficus trees donated to zoo program LAX
dune volunteers LAX
coastal habitat native conservation - plants and animal species LAX
area acres of mitigation land
GPA Beach water Dry Season
GPA Beach water Wet Season
% storm water capture LAWA
% storm water capture LAX
% storm water capture ONT
% storm water capture VNY
# heat temperature from LAX Asphalt

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Measurement Label & Description – Environmental Responsibility
Awards
LA Green Business Certification awards non-LAWA
LA Green Business Certification awards LAWA
Reports & Clearances
Mitigation Monitoring Reporting Program Reports (MMRP) completed each year for prior year
sustainability reports completed within 1 year
% compliance with CA 23 CCR 16, involving Underground Storage Tank (UST) management
# CEQA and NEPA environmental clearances per project
% compliance with CA 23 CCR 16, involving Underground Storage Tank (UST) management
# CEQA and NEPA environmental clearances per project
# Level 3 Airport Carbon Accreditation Achieved

GUEST EXPERIENCE

Table D.2 displays the breadth of measurements considered in developing the Guest Experience BSC in Chapter II.3. Because LAWA lacks access to data that affect the guest experience, but are maintained and monitored by its partners, such as the airlines, TSA, etc., KH has color-coded those metrics:

- Private companies (airlines, private shuttle services, private parking lots, concessionaires, etc.) in peach
- Other governmental agencies (TSA, CBP, FAA, CBP) in yellow

Table D.2: Potential Measurements – Guest Experience

Measurement Label	Measurement Description – Guest Experience
CORE SERVICES	
Access: Time/Efficiency	
Vehicular	
ADA Vans - PAX	# disabled PAX served by ADA vans
ADA Vans - Response Time	# mins between ADA van request and PAX pickup
ASR - Roadway	# roadway area shutdown requests (ASR) approved by CALM (CY)
ASR - Terminal	# terminal area shutdown requests (ASR) approved by CALM (CY)
CTA - # Vehicles/Day	# vehicles entering the CTA each day
CTA - Curb Availability	# feet of inner and outer curb available (minus construction) - lower
CTA - Curb Availability	# feet of inner and outer curb available (minus construction) - upper
CTA - LL Drive Time	# mins to complete CTA orbit - Lower
CTA - UL Drive Time	# mins to complete CTA orbit - Upper
CTA Congestion	# CTA congestions where CTA orbit takes 30 mins or more
Drive Time - Century	# mins to drive Century Blvd

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Measurement Label	Measurement Description – Guest Experience
Drive Time - N Side Approach	# mins to drive north side approach
Drive Time - Sepulveda	# mins to drive Sepulveda Blvd tunnel
FlyAway - On-time Performance	% FlyAway operating according to schedule, by route
FlyAway - Satisfaction	% rating 4 or 5 out of 5 for FlyAway Service on Yelp - Van Nuys
FlyAway - Satisfaction	% rating 4 or 5 out of 5 for FlyAway Service on Yelp - Downtown
FlyAway - Satisfaction	% rating 4 or 5 out of 5 for FlyAway Service on Yelp - Westwood
FlyAway - Satisfaction	% rating 4 or 5 out of 5 for FlyAway Service on Yelp - Hollywood
Parking - Closure Time	# average mins per lot closure - Lot 3
Parking - Closure Time	# average mins per lot closure - Lot 4
Parking - Closure Time	# average mins per lot closure - Lot 5
Parking - Closure Time	# average mins per lot closure - Lot 6
Parking - Closures	# closures - Lot 3
Parking - Closures	# closures - Lot 4
Parking - Closures	# closures - Lot 5
Parking - Closures	# closures - Lot 6
Parking - Exit Gates	# exit gates open - by lot
Parking Occupancy Rate	% hours parking is <90% full - by lot
Parking Occupancy Rate	% hours parking is >90% full - by lot
Parking Occupancy Rate	% hour parking is 100% full - by lot
Parking-Cell-Phone Lot	# using cell phone lot
Parking-Cell-Phone Lot	# average mins. in cell phone lot
Parking-Cell-Phone Lot	# parking spaces in cell phone lot
Parking-Cell-Phone Lot	# vehicles entering cell phone lot
Parking-Transactions	# seconds to process various types of transactions - Grace Period
Parking-Transactions	# seconds to process various types of transactions - Regular
Public Transport Use	# PAX using public transport
Shuttles - Headway - Airline Connection Buses	# mins between airline connection buses during peak hours
Shuttles - Headway - Hotel	# mins between hotel shuttles during peak hours
Shuttles - Headway – Parking	# mins between parking shuttles during peak hours
Shuttles - Headway - Rental Cars	# mins between rental car shuttles during peak hours
Shuttles - PAX Volume	# PAX using LAWA-operated shuttles
Shuttles - PAX Volume	# PAX using third-party-operated shuttles

KH

Measurement Label	Measurement Description – Guest Experience
Shuttles - Throughput - Airline Connection Buses	# total airline connection buses entering CTA (CY)
Shuttles - Throughput – Hotel	# total hotel shuttles entering CTA (CY)
Shuttles - Throughput – Parking	# total parking shuttles entering CTA (CY)
Shuttles - Throughput - Rental Cars	# total rental car shuttles entering CTA (CY)
Shuttles - Throughput – Total	# total shuttles entering CTA (CY)
Taxi Queue	# average PAX in taxi queue
Taxi Volume	# taxis entering CTA
Traffic Officers	# average traffic officers on duty at peak evening hours
Pedestrian	
Airline Ticket Counter Processing Time	# mins to complete PAX processing at ticket counter - T1
Airline Ticket Counter Processing Time	# mins to complete PAX processing at ticket counter - T2
Airline Ticket Counter Processing Time	# mins to complete PAX processing at ticket counter - T3
Airline Ticket Counter Processing Time	# mins to complete PAX processing at ticket counter - T4
Airline Ticket Counter Processing Time	# mins to complete PAX processing at ticket counter - T5
Airline Ticket Counter Processing Time	# mins to complete PAX processing at ticket counter - T6
Airline Ticket Counter Processing Time	# mins to complete PAX processing at ticket counter - T7
Airline Ticket Counter Processing Time	# mins to complete PAX processing at ticket counter - T8
Airline Ticket Counter Processing Time	# mins to complete PAX processing at ticket counter - TBIT
Baggage Handling System Availability	# baggage handling system outages over 10 mins - inbound
Baggage Handling System Availability	# baggage handling system outages over 10 mins - outbound
Baggage Handling System Throughput	# bags through baggage handling system - total LAX
Baggage Handling System Throughput	# bags through baggage handling system - T1
Baggage Handling System Throughput	# bags through baggage handling system - T2
Baggage Handling System Throughput	# bags through baggage handling system - T3
Baggage Handling System Throughput	# bags through baggage handling system - T4

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Measurement Label	Measurement Description – Guest Experience
Baggage Handling System Throughput	# bags through baggage handling system - T5
Baggage Handling System Throughput	# bags through baggage handling system - T6
Baggage Handling System Throughput	# bags through baggage handling system - T7
Baggage Handling System Throughput	# bags through baggage handling system - TBIT
CBP PAX Clearance Rate	% total PAX through CBP checkpoint in under 15 minutes - LAX
CBP PAX Clearance Rate	% total PAX through CBP checkpoint in under 30 minutes - LAX
CBP PAX Clearance Rate	% total PAX through CBP checkpoint in under 45 minutes - LAX
CBP PAX Clearance Rate	% total PAX through CBP checkpoint in over 45 minutes - LAX
CBP PAX Clearance Rate	% total PAX through CBP checkpoint in under 15 minutes - T2
CBP PAX Clearance Rate	% total PAX through CBP checkpoint in under 30 minutes - T2
CBP PAX Clearance Rate	% total PAX through CBP checkpoint in under 45 minutes - T2
CBP PAX Clearance Rate	% total PAX through CBP checkpoint in over 45 minutes - T2
CBP PAX Clearance Rate	% total PAX through CBP checkpoint in under 15 minutes - T5
CBP PAX Clearance Rate	% total PAX through CBP checkpoint in under 30 minutes - T5
CBP PAX Clearance Rate	% total PAX through CBP checkpoint in under 45 minutes - T5
CBP PAX Clearance Rate	% total PAX through CBP checkpoint in over 45 minutes - T5
CBP PAX Clearance Rate	% total PAX through CBP checkpoint in under 15 minutes - T7
CBP PAX Clearance Rate	% total PAX through CBP checkpoint in under 30 minutes - T7
CBP PAX Clearance Rate	% total PAX through CBP checkpoint in under 45 minutes - T7
CBP PAX Clearance Rate	% total PAX through CBP checkpoint in over 45 minutes - T7
CBP PAX Clearance Rate	% total PAX through CBP checkpoint in under 15 minutes - TBIT
CBP PAX Clearance Rate	% total PAX through CBP checkpoint in under 30 minutes - TBIT
CBP PAX Clearance Rate	% total PAX through CBP checkpoint in under 45 minutes - TBIT
CBP PAX Clearance Rate	% total PAX through CBP checkpoint in over 45 minutes - TBIT
CBP PAX Clearance Time	# average minutes for PAX to clear CBP checkpoints
CTA Parking to Terminal Walk Time	# mins walking from CTA parking to terminal
Inner Curb to Terminal Walk Time	# mins walking from inner curb to terminal
Outer Curb to Terminal Walk Time	# mins walking from outer curb to terminal
PAX Disembarking	# mins from when the plane is at the block and PAX exits the terminal
TSA PAX Clearance Rate	% total PAX through TSA checkpoint in under 20 mins, by terminal
TSA PAX Clearance Rate	% total PAX through TSA checkpoint in over 45 min, by terminal

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Measurement Label	Measurement Description – Guest Experience
TSA PAX Clearance Rate	# PAX wait times >20 min - total LAX
TSA PAX Clearance Rate	# PAX wait times >20 min - T1
TSA PAX Clearance Rate	# PAX wait times >20 min - T2
TSA PAX Clearance Rate	# PAX wait times >20 min - T3
TSA PAX Clearance Rate	# PAX wait times >20 min - T4
TSA PAX Clearance Rate	# PAX wait times >20 min - T5
TSA PAX Clearance Rate	# PAX wait times >20 min - T6
TSA PAX Clearance Rate	# PAX wait times >20 min - T7
TSA PAX Clearance Rate	# PAX wait times >20 min - TBIT
TSA PAX Clearance Time	# average minutes for PAX to clear TSA checkpoints
TSA PAX Volumes	# people screened/processed through TSA checkpoints - total LAX
TSA PAX Volumes	# people screened/processed through TSA checkpoints - T1
TSA PAX Volumes	# people screened/processed through TSA checkpoints - T2
TSA PAX Volumes	# people screened/processed through TSA checkpoints - T3
TSA PAX Volumes	# people screened/processed through TSA checkpoints - T4
TSA PAX Volumes	# people screened/processed through TSA checkpoints - T5
TSA PAX Volumes	# people screened/processed through TSA checkpoints - T6
TSA PAX Volumes	# people screened/processed through TSA checkpoints - T7
TSA PAX Volumes	# people screened/processed through TSA checkpoints - TBIT
Walk Times Measured	% airport where walking times to nearest and farthest gates have been measured and posted
Wheelchair Requests	# wheelchair requests, by terminal
Airside	
Flight Delays	% departing flights delayed more than 15 mins - total
Flight Delays	% departing flights delayed more than 15 mins - weather
Flight Delays	% departing flights delayed more than 15 mins - runway
Flight Delays	% arriving flights delayed more than 15 mins
Flight Delays	% delayed gate departures
Flight Delays	# average mins of delay per delayed gate departure
Flight Delays	% delayed gate arrivals
Flight Delays	# average mins of delay per delayed gate arrival
Gate Availability	% downtime for gates
Remote Gate Usage	# PAX served at remote gates
Remote Gate Usage	# flights served at remote gates
Remote Gate Usage	% flights served at remote gates

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Measurement Label	Measurement Description – Guest Experience
Remote Gate Usage	# PAX served at remote gates - TBIT
Remote Gate Usage	# flights served at remote gates - TBIT (CY)
Remote Gate Usage	% flights served at remote gates - TBIT (CY)
Traffic Management Initiatives	# Traffic Management Initiatives (TMI) - ground stops, EDCT, etc.
Air Services Development	
Lost Service	# nonstop destinations (Intl) no longer served - LAX
Lost Service	# nonstop & 1-stop destinations (US) no longer served - LAX
Lost Service	# foreign countries lost with non-stop or 1-stop services - LAX
Lost Service	# non-stop cities or foreign countries lost - ONT
New Service	# new nonstop or 1-stop destinations (Intl) - LAX
New Service	# new nonstop destinations (US) - LAX
Service - Foreign Countries LAX	# foreign countries served with non-stop or 1-stop services - LAX
Service - Foreign Countries ONT	# foreign countries served - ONT
Service - Intl Cities LAX	# non-stop or 1-stop cities (int'l) - LAX
Service - Intl Cities ONT	# non-stop cities (int'l) - ONT
Service - US Cities LAX	# non-stop cities (US) - LAX
Service - US Cities ONT	# non-stop cities (US) - ONT
Safe & Secure	
ADA Facilities	# disability services complaints on Infoline
Airport Police Count	# uniformed officers
First Aid Facilities	# first aid facilities
Incidence of Crime - Property	# part 1 property crimes (burglary, theft, auto theft, burglary of motor vehicle, theft from motor vehicle) - LAX (CY)
Incidence of Crime - Property	# part 1 property crimes per million PAX (burglary, theft, auto theft, burglary of motor vehicle, theft from motor vehicle) - LAX (CY)
Incidence of Crime - Violent	# part 1 violent crimes (aggravated assault, homicide, rape, robbery) - LAX (CY)
Incidence of Crime - Violent	# part 1 violent crimes per million PAX (aggravated assault, homicide, rape, robbery) - LAX (CY)
Injuries	# injuries on elevators, escalators - LAX
Lighting Maintenance	% lights in in terminals in working condition
Pedestrian Safety	# pedestrian-involved vehicular accidents
Pedestrian Safety	# lighted pedestrian signs
Safe Facilities	# reported injuries by PAX in terminals
Visible Law Enforcement	# high-visibility patrols

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Measurement Label	Measurement Description – Guest Experience
Maintained & Clean	
Cleaning Frequency	# hours interval between bathroom cleaning/inspection
Cleaning Frequency	# hours interval between lactation room cleaning/inspection
Custodial Monitoring	# custodial problems reported by passengers on Infoline
Custodial Staffing	# sq. ft per custodial worker - T1
Custodial Staffing	# sq. ft per custodial worker - T2
Custodial Staffing	# sq. ft per custodial worker - T3
Custodial Staffing	# sq. ft per custodial worker - T4
Custodial Staffing	# sq. ft per custodial worker - T5
Custodial Staffing	# sq. ft per custodial worker - T6
Custodial Staffing	# sq. ft per custodial worker - T7 and T8
Custodial Staffing	# sq. ft per custodial worker - TBIT
Custodial Staffing	# custodial workers - T1
Custodial Staffing	# custodial workers - T2
Custodial Staffing	# custodial workers - T3
Custodial Staffing	# custodial workers - T4
Custodial Staffing	# custodial workers - T5
Custodial Staffing	# custodial workers - T6
Custodial Staffing	# custodial workers - T7 and T8
Custodial Staffing	# custodial workers - TBIT
LAX ACI/ASQ Survey	% LAX ACI/ASQ Survey satisfaction rating regarding cleanliness of washrooms/toilets
LAX ACI/ASQ Survey	% LAX ACI/ASQ Survey satisfaction rating regarding cleanliness of airport terminal
Maintenance Consistency	# cleanliness/terminal facilities complaints in terminal areas maintained by LAWA (T1, T2, T3, TBIT) on Infoline
Maintenance Consistency	# cleanliness/terminal facilities complaints in terminal areas maintained by airlines on Infoline
Maintenance Responsiveness	# hours between reported outage/custodial issue and completed repair
Maintenance Responsiveness	# restroom fixtures out of service
Maintenance Responsiveness	# average days to resolve unscheduled maintenance requests
Maintenance Responsiveness	# unscheduled public area work orders not resolved within 3 days
Major System Downtime	# hours downtime for HVAC, Elevators, Escalators, etc. - by terminal
Major System Downtime	# hours downtime for Elevators, Escalators, etc. - by parking lot
Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - T1

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Measurement Label	Measurement Description – Guest Experience
Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - T2
Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - T3
Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - T4
Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - T5
Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - T6
Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - T7
Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - T8
Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - TBIT
Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - Airfield
Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - CTA
Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - Outlying
Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - Remote Gates
Major System Incidents	# maintenance incidents (e.g. HVAC, Elevators, Escalators, etc.) - VNY
Major System Incidents	# incidents for Elevators, Escalators, etc. - by parking lot
Major System Maintenance	% recommended preventive maintenance completed by major system
Major System Maintenance	# scheduled maintenance work orders deferred or delayed
Power Reliability	# power outages and surges - power grid
Power Reliability	# power outages and surges - LAX system
Roadway Cleanliness	# complaints regarding cleanliness of CTA and surrounding streets (tunnel) on Infoline
WORLD-CLASS SERVICES	
Ambiance & Sense of Place (LA)	
Guest Satisfaction - Ranking	# ranking of LAX in PAX satisfaction by ACI/ASQ or others
LA Themed Artwork	# LA-themed art exhibitions - T1
LA Themed Artwork	# LA-themed art exhibitions - T2
LA Themed Artwork	# LA-themed art exhibitions - T3
LA Themed Artwork	# LA-themed art exhibitions - T4
LA Themed Artwork	# LA-themed art exhibitions - T5
LA Themed Artwork	# LA-themed art exhibitions - T6
LA Themed Artwork	# LA-themed art exhibitions - T7
LA Themed Artwork	# LA-themed art exhibitions - T8
LA Themed Artwork	# LA-themed art exhibitions - TBIT
LA Themed Concessions	# LA-themed concessions - T1
LA Themed Concessions	# LA-themed concessions - T2
LA Themed Concessions	# LA-themed concessions - T3

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Measurement Label	Measurement Description – Guest Experience
LA Themed Concessions	# LA-themed concessions - T4
LA Themed Concessions	# LA-themed concessions - T5
LA Themed Concessions	# LA-themed concessions - T6
LA Themed Concessions	# LA-themed concessions - T7
LA Themed Concessions	# LA-themed concessions - T8
LA Themed Concessions	# LA-themed concessions - TBIT
LA Themed Events	# LAWA-sponsored events for guest appreciation
LA Themed Signage	# LA-themed signs - T1
LA Themed Signage	# LA-themed signs - T2
LA Themed Signage	# LA-themed signs - T3
LA Themed Signage	# LA-themed signs - T4
LA Themed Signage	# LA-themed signs - T5
LA Themed Signage	# LA-themed signs - T6
LA Themed Signage	# LA-themed signs - T7
LA Themed Signage	# LA-themed signs - T8
LA Themed Signage	# LA-themed signs - TBIT
LAX ACI/ASQ Survey	% LAX ACI/ASQ Survey satisfaction rating regarding ambiance of the airport
PAX Satisfaction Ranking	# PAX satisfaction rating by ACI/ASQ
Concessions & Amenities	
ATMs	# ATMs in terminals
Cell Phone Charging	# cell phone charging stations - T1
Cell Phone Charging	# cell phone charging stations - T2
Cell Phone Charging	# cell phone charging stations - T3
Cell Phone Charging	# cell phone charging stations - T4
Cell Phone Charging	# cell phone charging stations - T5
Cell Phone Charging	# cell phone charging stations - T6
Cell Phone Charging	# cell phone charging stations - T7
Cell Phone Charging	# cell phone charging stations - T8
Cell Phone Charging	# cell phone charging stations - TBIT
Concession Availability - Evening	% concessions open at boarding call for last flight, against plan
Concession Availability - Morning	% concessions open 1 hour (2 hours in TBIT) before 1st flight, against plan
Concession Quality - Complaints	# complaints about concessions on Infoline
Currency Exchange	# currency exchange locations in terminals (international terminals only)

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Measurement Label	Measurement Description – Guest Experience
Free Amenities	# amenities that are free to guests (e.g. lactation rooms, shoeshine, pet relief, excluding charging stations)
Lounge Area ADA Seats	# hold room ADA-designated seats in terminal areas - by terminal
Lounge Area ADA Seats	# hold room ADA-designated seats in terminal areas - TBIT
Lounge Area Seats	# hold room seats in terminal areas - by terminal
Lounge Area Seats	% seating capacity accounted for by peak hour TSA entries - by terminal
Lounge Area Seats	# hold room seats in terminal areas - TBIT
Lounge Area Seats	% seating capacity accounted for by peak hour TSA entries - TBIT
Wi-Fi Coverage	% terminal covered by Wi-Fi - by terminal
Wi-Fi Speed	# Mbps connection speed of Wi-Fi
Hospitality (Informed & Friendly Staff)	
Commendations - LAWA Staff	# commendations about LAWA staff on Infoline
Commendations - Partners	# commendations about partners on Infoline
Complaints - LAWA Staff	# complaints about LAWA staff on Infoline
Complaints - Partners	# complaints about partners on Infoline
Customer Service Training - LAWA Staff	% LAWA staff trained in guest experience and airport information
Customer Service Training - LAWA Staff	# LAWA staff trained in guest experience and airport information
Customer Service Training - Partners	% partners trained in guest experience and airport information
Customer Service Training - Partners	# partners trained in guest experience and airport information
FAQ Test Scores - LAWA Staff	% correct answers on FAQ test - LAWA staff
FAQ Test Scores - Partners	% correct answers on FAQ test - partners
Friendliness - LAWA Staff	% LAWA staff rated excellent in friendliness by shoppers
Friendliness - Partners	% partners rated excellent in friendliness by shoppers
LAX ACI/ASQ Survey	% LAX ACI/ASQ Survey satisfaction rating regarding courtesy and helpfulness of airport staff
LAX ACI/ASQ Survey	% LAX ACI/ASQ Survey satisfaction rating regarding courtesy and helpfulness of check-in staff
LAX ACI/ASQ Survey	% LAX ACI/ASQ Survey satisfaction rating regarding courtesy and helpfulness of inspection staff
LAX ACI/ASQ Survey	% LAX ACI/ASQ Survey satisfaction rating regarding courtesy and helpfulness of security staff
Shopped Success - LAWA Staff	% shopped questioned responded to accurately - LAWA terminals
Shopped Success - LAWA Staff	% shopped questioned responded to accurately - Westfield

KH

Measurement Label	Measurement Description – Guest Experience
Shopped Success - LAWA Staff	% shopped questioned responded to accurately - DFS
Shopped Success - Partners	% shopped questioned responded to accurately - LAWA terminals
Shopped Success - Partners	% shopped questioned responded to accurately - Westfield
Shopped Success - Partners	% shopped questioned responded to accurately - DFS
Informed Guests	
Guest Services	# guests served by Guest Services
Guest Services - GEMs	# PAX assisted by GEMs
Guest Services - Volunteer Assists	# PAX assisted by VIPs
Guest Services - Volunteer Hours	# VIP volunteer hours (CY)
LAX ACI/ASQ Survey	% LAX ACI/ASQ Survey satisfaction rating regarding ease of finding your way through airport
Notification Lag Time - APD Everbridge	# mins from identification of issue to notification in appropriate channel
Notification Lag Time - APD Message Signs	# mins from identification of issue to notification in appropriate channel
Notification Lag Time - APD Twitter	# mins from identification of issue to notification in appropriate channel
Notification Lag Time - Ops Audio Paging	# mins from identification of issue to notification in appropriate channel
Notification Lag Time - Ops Visual Message System	# mins from identification of issue to notification in appropriate channel
PAX Accessing Traffic Information	# PAX accessing roadway information via traditional or social media
Traffic Bulletins - APD	# bulletins released via social media regarding traffic conditions - APD (CY)
Traffic Bulletins - PR	# bulletins released to media regarding traffic conditions - PR
Wayfinding - Signage	# foreign language on signage, as per Title VI Environmental Justice compliance
Wayfinding - Signage	# wayfinding complaints on Infoline
OTHER AREAS TO POTENTIALLY MEASURE	
System-wide Measurements	
Acres - LAX	# acres - LAX
Acres - ONT	# acres - ONT
Acres - VNY	# acres - VNY
Air Cargo	# tons of cargo landed
Air Cargo	# tons of cargo embarked
Air Cargo	# cargo tonnage - LAWA
Air Cargo	$ cargo value - LAWA
Air Cargo	# cargo tonnage - LAX

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Measurement Label	Measurement Description – Guest Experience
Air Cargo	$ cargo value - LAX
Air Cargo	# cargo tonnage - ONT
Air Cargo	$ cargo value - ONT
Aircraft Operations	# aircraft arriving and departing
PAX - Domestic	# of domestic PAX - Total
PAX - Domestic LAX	# of domestic PAX - LAX
PAX - Domestic ONT	# of domestic PAX - ONT
PAX - Intl	# of international PAX - Total
PAX - Intl LAX	# of international PAX - LAX
PAX - Intl ONT	# of international PAX - ONT
PAX - Total	# of PAX - Total
PAX - Total LAX	# of PAX - LAX
PAX - Total ONT	# of PAX - ONT
PAX - Total VNY	# of PAX - VNY
PAX Departing	# departing PAXs
PAX Inbound	# inbound PAXs
PAX-International	# arriving international PAXs, by terminal
PAX-International	# departing international PAXs, by terminal
Planes/day - LAX	# take-offs/landings per day - LAX
Planes/day – ONT	# take-offs/landings per day - ONT
Planes/day – VNY	# take-offs/landings per day - VNY
Sq ft - LAX T1	# square footage by terminal - LAX T1
Sq ft - LAX T2	# square footage by terminal - LAX T2
Sq ft - LAX T3	# square footage by terminal - LAX T3
Sq ft - LAX T4	# square footage by terminal - LAX T4
Sq ft - LAX T5	# square footage by terminal - LAX T5
Sq ft - LAX T6	# square footage by terminal - LAX T6
Sq ft - LAX T7	# square footage by terminal - LAX T7
Sq ft - LAX T8	# square footage by terminal - LAX T8
Sq ft - LAX TBIT	# square footage by terminal - LAX TBIT
Sq ft - ONT T1USO	# square footage by terminal - ONT T1USO
Sq ft - ONT T2	# square footage by terminal - ONT T2
Sq ft - ONT T4	# square footage by terminal - ONT T4
Sq ft - VNY	# square footage by terminal - VNY

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Measurement Label	Measurement Description – Guest Experience
Transportation	
Air Mobility	
Aircraft Delays-Capacity	# aircraft delays due to airside capacity limits or restrictions
Aircraft Delays-Duration	# total mins all aircraft delayed due to airside capacity limits or restrictions
Aircraft Delays-Other	# aircraft delays due to ground stops at other airports
Capacity Utilization	% utilization of estimated air operations maximum capacity
Non-Commercial Aircraft	# non-commercial aircraft arrivals
Runway Clearance	# Foreign Object Reports of debris on runways
Runway Clearance-Birds	# reports of bird activities on or near runways
Runway Clearance-Birds	# reported bird strikes by aircraft
Access – Ground Mobility	
Airline Connection-Bus	# average mins from T-1 To T-8
Airline Connection-Bus	# bus movements to/from T-4
Airline Connection-Bus	# average of bus PAXs per terminal per hour
Airport Access	# mins from 5 most common origin & destination (O&D) points to 105 and 405 ramps
Airport Incidents	# incidents, by type, by terminal, to which Airport Operations Personnel respond
Audit-Parking	# parking audits completed
Audit-Transport	# ground transport contract compliance audits completed
CTA Bus Movements	# buses entering CTA
Facility Readiness	To ensure that the public areas, restrooms, and facilities are at optimal levels of cleanliness and operations for their use
Facility Readiness	# inspections of public areas
Facility Readiness	# deficiencies against checklist. Each Public Restroom is inspected quarterly. The inspection centers on customer experience and safety and conditions: working fixtures, exhaust fans, sinks/counters
Facility Readiness	% concessions open for business 2 hours before 1st flight, by Terminal, against plan
Facility Readiness	% concessions open for business at boarding call for last flight, by Terminal, against plan
FlyAway-Customer Satisfaction	# customer satisfaction surveys completed
FlyAway-Customer Satisfaction	# average overall satisfaction rating
FlyAway-Net Costs	$ net cost to operate FlyAway service by route per PAX - Hollywood
FlyAway-Net Costs	$ net cost to operate FlyAway service by route per PAX - Santa Monica
FlyAway-Net Costs	$ net cost to operate FlyAway service by route per PAX - Union Station
FlyAway-Net Costs	$ net cost to operate FlyAway service by route per PAX - Van Nuys

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Measurement Label	Measurement Description – Guest Experience
FlyAway-Net Costs	$ net cost to operate FlyAway service by route per PAX - Westwood
FlyAway-On-time Performance	On-time performance of each FlyAway route as a percentage
FlyAway-Parking Traffic	# average parking spaces used by FlyAway PAX @ VNY
FlyAway-PAXs	# PAXs by route
FlyAway-Ridership	# FlyAway PAXs by route - Hollywood
FlyAway-Ridership	# FlyAway PAXs by route - Santa Monica
FlyAway-Ridership	# FlyAway PAXs by route - Union Station
FlyAway-Ridership	# FlyAway PAXs by route - Van Nuys
FlyAway-Ridership	# FlyAway PAXs by route - Westwood
Guest Satisfaction	% terminal space with excellent cell phone coverage
Multi-Modal Access-Bus	# average mins for shuttle buses' round trip to/from LAX Transportation Center
Multi-Modal Access-Bus	# shuttle buses arriving LAX Transportation Center
Multi-Modal Access-Bus	# PAX to LAX Transportation Center (outbound)
Multi-Modal Access-Bus	# PAX from LAX Transportation Center (inbound)
Multi-Modal Access-Train	# average mins for round trip LAX to/from Green Line Station Shuttle
Multi-Modal Access-Train	# shuttle Buses arriving at Green Line Station
Multi-Modal Access-Train	# of shuttle PAX from LAX to Green Line (outbound)
Multi-Modal Access-Train	# of shuttle PAX from LAX to Green Line Shuttle (inbound)
Other Guest Experiences	
Parking	
Parking-CTA Exit Flow	# average mins wait time at parking lot exit plazas
Parking-Customer Safety	# operating and observed cameras in parking garages or parking lots
Parking-Garage Transactions	# transactions per hour
Parking-Revenue	$ revenue from parking - LAX
Parking-Revenue	% change in parking revenue year-to-year - LAX
Parking-Revenue	$ revenue from parking - VNY
Parking-Revenue	% change in parking revenue year-to-year - LAX
Parking-Revenue Control	# operational anti-passback loop detectors at lot entrances
Parking-Revenue Control Audits	$ variance bank deposit/combined cashier reports
Parking-Revenue Control Audits	% reconciliation of cashier reports
Parking-Spaces	% parking capacity available at 6:00 am
Parking-Ticket Inventory	# tickets in secure storage, first day of each month

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Measurement Label	Measurement Description – Guest Experience
Parking-Ticket Inventory	# tickets issued to parking lot operator
Parking-Ticket Inventory	# tickets received in secure storage
PAX Volumes	# combined International and domestic PAX volumes by terminal
PAX/Guest Service	
Shuttle Buses- Hotels	# shuttle bus permits active for hotels
Shuttle Buses- Hotels	# shuttle bus movements for hotels
Shuttle Buses- Hotels	$ shuttle bus permit income from hotels
Shuttle Buses-LAX	Adherence to published headways for shuttle service as a percentage (Lot C, Green line, Employee Operation)
Shuttle Buses-Remote Parking LAX	# shuttle bus movements to/from LAX remote parking
Shuttle Buses-Remote Parking Private	# shuttle bus permits active for private remote parking
Shuttle Buses-Remote Parking Private	# shuttle bus movements for private remote parking
Shuttle Buses-Rental Cars	# shuttle bus permits active for rental cars
Shuttle Buses-Rental Cars	# shuttle bus movements for rental cars
Taxis	# taxi tickets issued
Taxis	$ taxi ticket revenue
Taxis-Dispatched	# taxis dispatched from holding area
Terminal Access	# mins from remote parking lot to curbside
Terminal Access	# mins from 105 ramp to TBIT - peak
Terminal Access	# mins from 405/Century off-ramp to TBIT - peak
Terminal Access	# elevators out of service for longer than one hour, by Terminal
Terminal Access	# escalators out of service for longer than one hour, by Terminal
Terminal Access	# elevators out of service for longer than one hour in CTA parking structures
Terminal Operations	% PAX transiting TSA inspection >20 mins
Terminal Operations	% PAX transiting CBP checkpoints < 45 mins
Terminal Operations	% public areas (sq ft) with strong cell phone signal, by Terminal
Terminal Operations	% public areas (sq ft) with strong wireless internet signal, by Terminal
Traffic-Area Shutdown Requests	# construction-related closures of roads and facilities at LAX
Traffic-Ground Mobility	# requests for Traffic Officer assistance from ARCC
Traffic-Ground Mobility	# requests for traffic control assistance from Parking Manager to ARCC
Traffic-Vehicular	# vehicles on CTA roadways
Traffic-Vehicular	# mph speeds on CTA roadways
Traffic-Vehicular	# average mins vehicle travel time from T-1 to Sepulveda/Century exit

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Measurement Label	Measurement Description – Guest Experience
Traffic-Vehicular	# vehicles exiting CTA at Sepulveda/Century intersection
Domestic PAX/Guest Service	
Guest Services	# guests served by Guest Services
TSA-PAX Volumes	# PAXs processed through TSA checkpoints
TSA-Wait Times	Peak and average wait times for TSA and CBP
TSA-Wait Times	# average mins PAXs wait for clearance at TSA during peak hours
TSA-Wait Times	# average mins PAXs wait for clearance at TSA during off peak hours
International PAX/Guest Service	
CBP-APC Kiosks	# average mins of peak hour waiting time for Automated Passport Control (APC) Kiosks. Measurements taken to monitor efficiencies of the kiosks
CBP-APC Kiosks	# users processed through APC Kiosks
CBP-APC Kiosks	# PAX cleared per day at kiosks
CBP-APC Kiosks	# average seconds for APC Kiosks transaction times by month
CBP-APC Kiosks	# average waiting time for APC Kiosks
CBP-Wait Times	# average mins PAXs wait for clearance at Customs & Border Protection (CBP) during peak hours - LAX
CBP-Wait Times	# average mins PAXs wait for clearance at Customs & Border Protection (CBP) during off peak hours - ONT
CBP-Wait Times	Note: PAXs arriving LAX on international flights should be processed through the CBP primary inspection process with no wait time in excess of 45 mins. Because it is captured as a percentage on a monthly basis, it does not lend itself well to the provision of data points.
Remote Gates	% flights at remote gates, by carrier
Remote Gates	# PAX handled at remote gates
Remote Gates-Buses	# average mins for bus response time for arriving flights at remote gates
Airline/Lessee Service	
Badging	# badges requested
Badging	# badges Issued
Badging	# badges being processed
Badging	# average processing time for badging
Badging	# badge applications pending <5 days
Badging-Customer Service	# average mins for badging counter customer transactions
Badging-Customer Service	# customers serviced by each badging counter employee
Customer Service (Law Enforcement)	# average rating on identified Guest Service Survey questions
Tenant Improvement Construction	% total tenant improvements that are on schedule by terminal

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Measurement Label	Measurement Description – Guest Experience
Operations	
Landside	
Air Cargo	# air cargo operations
Air Cargo	# tons airline belly cargo
Central Terminal Area Landside Traffic Management	Address heavy congestion in CTA for PAXs and identify means to alleviate traffic and allow PAXs to get to terminals more efficiently - Number of vehicles in CTA
Police-Response	# responses to traffic congestion by terminal
Terminal Access	# mins from parking lot to terminal curb
Traffic-Buses	# bus PAXs
Traffic-CTA	Address heavy congestion in CTA for PAXs and identify means to alleviate traffic and allow PAXs to get to terminals more efficiently - Time entered/exit
Traffic-CTA	# mins to complete CTA orbit
Traffic-CTA	% traffic volume/total calculated vehicle capacity for CTA
Traffic-Curb Management	# rows of cars at main terminal doors for each terminal
Traffic-Flow	# average vehicle speed, CTA, during rush hours
Traffic-Flow	# CTA parking lot entries
Traffic-Flow	# remote parking lot entries
Traffic-Vehicular	# vehicles entering CTA
Traffic-Vehicular	# vehicles departing CTA
Traffic-Vehicular	# vehicle trips to LAX by zip code
Travel Time-Vehicular	# average vehicle miles traveled to LAX from targeted communities
Concessions & Real Estate	
Leasing & Development	
Parking-Contract	$ net revenue from parking operations
Parking-Contract	$ gross revenue from parking operations
Parking-Contract	$ parking lot operating expenses
Permits-LAWA Property Use	# completed permits with terms and conditions to occupy LAWA property
Property Leasing-Amendments	# completed and executed lease amendment negotiations
Property Leasing-Competitiveness	# Requests for Expression of Interest (RFEOI) for leasing property
Property Leasing-Competitiveness	# Requests for Proposals (RFPs) for leasing property
Property Leasing-Competitiveness	# Requests for Bids (RFBs) for leasing property
Property Leasing-Executed	# completed and executed lease negotiations

Exhibit X

U.S. EPA Transportation and Climate Website (last visited November 15, 2016)

EPA United States Environmental Protection Agency

Carbon Pollution from Transportation

On this page:

- Transportation and climate change
- EPA programs to reduce carbon pollution

Transportation and Climate Change

Burning fossil fuels like gasoline and diesel releases carbon dioxide, a greenhouse gas, into the atmosphere. The buildup of carbon dioxide (CO_2) and other greenhouse gases like methane (CH_4), nitrous oxide (N_2O), and hydrofluorocarbons (HFCs) is causing the Earth's atmosphere to warm, resulting in changes to the climate we are already starting to see today.

Twenty-six percent of U.S. greenhouse gas (GHG) emissions is from transportation. Transportation is the second leading source of GHG emissions in the United States, just behind electricity. Between 1990 and 2014, GHG emissions in the transportation sector increased more in absolute terms than any other sector.

Learn more:

- Global emissions by economic sector
- Fast facts on transportation greenhouse gas emissions

EPA Programs to Reduce Carbon Pollution from Transportation

EPA is addressing climate change by taking the following actions to reduce GHG emissions from the transportation sector. Many of these programs have benefits beyond cutting carbon. For example, decreasing fuel consumption can reduce our dependence on foreign oil and save consumers money at the pump.

Setting GHG Emissions Standards for Cars and Trucks

EPA and DOT issued a joint rule-making that set GHG emissions and fuel economy standards for the largest sources of greenhouse gases from transportation, including cars, light trucks, and heavy-duty trucks.

Light-duty GHG regulations for passenger vehicles and trucks are projected to:

- Cut 6 billion metric tons of GHG emissions over the lifetimes of the vehicles sold in model years 2012-2025 and allowing manufacturers flexibility in meeting the standards;

- Nearly double the fuel efficiency while protecting consumer choice; and
- Reduce America's dependence on oil and provide significant savings for consumers at the pump.

Heavy-duty GHG regulations are projected to:

- Reduce CO_2 emissions by about 270 million metric tons over the life of vehicles built under the program, saving about 530 million barrels of oil; and
- The proposed "Phase 2" program includes standards that would further reduce GHG emissions and improve the fuel efficiency of medium and heavy-duty trucks.

Learn more:

- Regulations for GHG emissions from passenger cars & trucks (light-duty)
- Regulations for GHG emissions from commercial trucks & buses (heavy-duty)
- GHG emission standards for light-duty vehicles: Manufacturer Performance Report
- Analyses and reports for setting GHG emissions standards for cars and trucks

Increasing the Use of Renewable Fuels

Congress created the Renewable Fuel Standard program in an effort to reduce greenhouse gas emissions and expand the nation's renewable fuels sector while reducing reliance on imported oil. Renewable fuels are produced from plants, crops and other biomass, and can reduce greenhouse gas emissions when compared to burning the fossil fuels they replace.

Learn more:

- Renewable Fuel Standard Program

Taking First Steps to Set a Greenhouse Gas Standards for Aircraft

EPA along with the Federal Aviation Agency at the United Nations' International Civil Aviation Organization have developed international carbon dioxide emissions standards for aircraft. EPA is also now working through the process of potentially setting domestic regulations under the Clean Air Act that address GHG emissions from certain classes of engines used in aircraft.

Learn more:

- Regulations for GHG emissions from aircraft

Greening the Federal Fleet

The 2007 Energy Independence and Security Act requires federal agencies to only acquire cars, light trucks, or medium-duty passenger vehicles that are low greenhouse gas emitting. Each year, EPA evaluates the greenhouse gas emissions performance of the fleet to determine which vehicles in each class emit less harmful greenhouse gases. The law requires federal agencies to purchase these high performing vehicles. Over time this will result in a greener federal fleet.

Learn more:

- Federal fleets

Reducing Greenhouse Gas Emissions Associated with Moving Goods

SmartWay helps the freight transportation sector improve supply chain efficiency, reducing greenhouse gases and saving fuel costs for companies who participate. Through SmartWay, EPA and its partners are making significant gains in the efficiency of how our nation moves goods, helping address air quality challenges, improving public health and reducing freight's contribution to climate change.

Learn more:

- SmartWay

Click to view larger image.

Informing Consumers Information on Fuel Economy and Advanced Technology Cars

Since the mid-1970s EPA has required automakers to display a label on new cars and light trucks with information on vehicles' fuel economy and fuel costs. Labels on today's cars also include ratings on greenhouse gas and smog-forming pollutants. EPA provides online resources, such as the Green Vehicle Guide and the joint EPA-DOE website fueleconomy.gov, to help consumers identify vehicles that can save them money at the pump and reduce their transportation-related emissions.

EPA's SmartWay light duty program goes further and identifies the top performing vehicles in terms of fuel economy and emissions to assist consumers in making an environmentally friendly purchase.

Learn more:

- Green Vehicle Guide
- Fueleconomy.gov
- Consider a SmartWay vehicle

Green Racing

Green Racing uses motorsports competition to promote the rapid development of cleaner, fuel efficient vehicles technologies that can be used in consumer vehicles. Green Racing is sponsored by the U.S. Environmental Agency, U.S. Department of Energy, and Society of Automotive Engineers (SAE) International, and its activities are guided by SAE Green Racing Protocols. Green Racing challenges the racing industry to use alternative technologies and clean fuels to gain the highest performance with the lowest environmental impact. The transfer of these innovations "*From the Raceway to the Driveway"* is the primary objective of Green Racing.

Learn more:

- Green racing

State and Local Transportation Resources Center

For information on emission reduction strategies, national policies and regulations, incentive-based and voluntary programs, funding sources, calculators, transportation conformity, and other types of assistance to help states and local areas achieve their air quality and transportation objectives.

Learn more:

- State and Local Transportation Resources

The Road Ahead

While transportation continues to contribute a large percentage of U.S. emissions, there are many opportunities for the sector to deliver greenhouse gas reductions. Low-carbon fuels, new and improved vehicle technologies, strategies to reduce the number of vehicle miles traveled, and operating vehicles more efficiently are all approaches to reducing greenhouse gases from transportation.

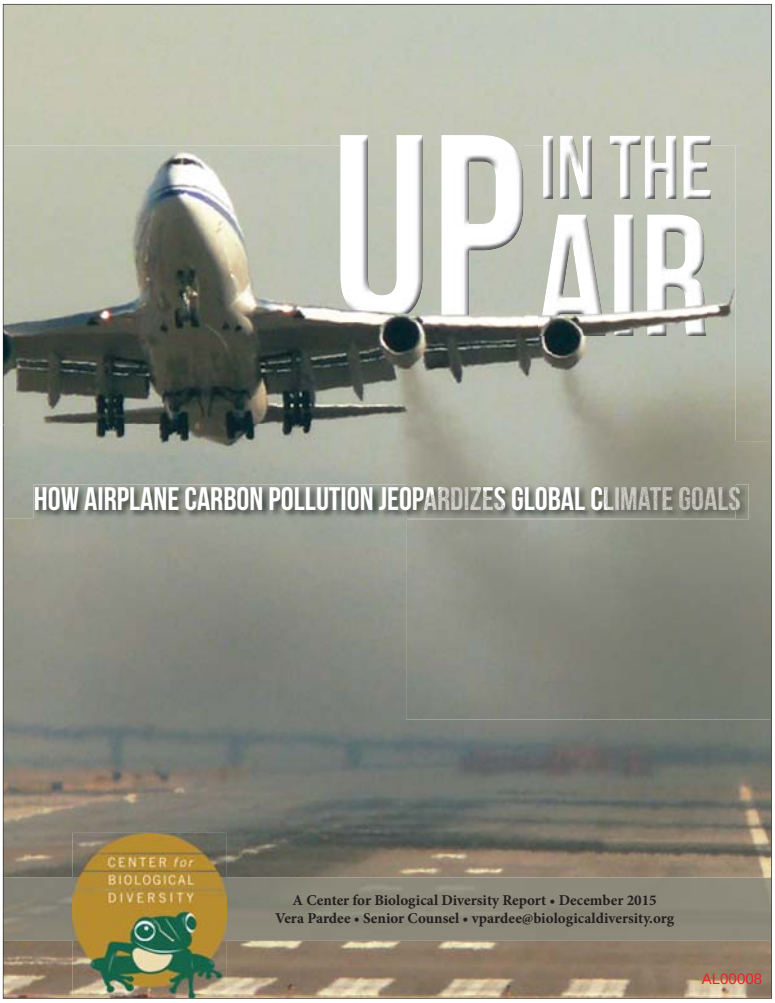
Learn more:

- Routes to a lower GHG transportation future

Last updated on November 9, 2016

Exhibit Y

Center for Biological Diversity, "Up In the Air—How Airplane Carbon Pollution Jeopardizes Global Climate Goals," December 2015



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EXECUTIVE SUMMARY

If commercial aviation were considered a country, it would rank seventh after Germany in terms of carbon emissions. Yet as the world prepares for the Paris climate conference, it is uncertain whether or how negotiators will produce an international treaty that reduces airplanes' planet-warming pollution.

For this report, we analyzed projected global airline travel in the coming years to determine the cost to the climate crisis under a business-as-usual scenario.

We found that by 2050, aircraft emissions are projected to more than triple. Unchecked, between 2016 and 2050 global aviation will generate an estimated 43 gigatonnes of carbon dioxide emissions. That amounts to more than 4 percent of the world's entire remaining carbon budget – the amount of pollution that can still be emitted before catastrophic planetary warming becomes virtually certain.

The international response to airplane pollution has been weak. The overall goal of the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) in Paris is to reduce all greenhouse emissions sufficiently to keep temperature increases below 1.5/2 degrees Celsius. But language folding aviation emissions into this goal was recently deleted from the Paris negotiating text and replaced by vague language that makes no mention of a temperature cap. These developments suggest that some parties would like to see this highly polluting industry exempted from the Conference's critical climate goal.

The International Civil Aviation Organization (ICAO), the U.N. agency responsible for addressing international aircraft pollution, so far has failed to tackle aviation carbon emissions. Over the last 18 years, ICAO has rejected, in turn, efficiency standards, fuel taxes, emissions charges and global emissions trading. The carbon emission standards now under consideration at ICAO barely bend the industry's steeply rising emission trend.

Despite the projected tripling of aviation emissions and the lack of any regulations, the aviation industry proclaims that it can attain its professed goal of carbon-neutral growth by 2020 by means of carbon offsets. But offsets are difficult to verify and monitor and should not displace readily available, cost-effective technical measures that can prevent and avoid – rather than merely offset – carbon pollution from new and existing airplanes.

Airplane pollution could be reduced dramatically. A recent International Council on Clean Transportation (ICCT) report evaluating the top 20 transatlantic air carriers found a 51 percent gap in fuel efficiency separating the top performers from the least-efficient airlines. The report highlights not only that technical improvements are an obvious and cost-effective first step before turning to offsets, but also that technological and operational advancements and fuel efficiency are inextricably linked.

Therefore, aviation emissions standards must be built on technology-forcing provisions that will drive fuel-efficiency gains. But ICAO's currently proposed standard is built on technology between 8 to 12 years *behind* the technology curve. Moreover, it would likely apply only to airplane types newly designed after 2023, and thus would cover just 5 percent of the global aircraft fleet in 2030 – barely bending the industry's ever-rising emissions curve.

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The U.S. Environmental Protection Agency need not follow ICAO's ineffectual standards proposal. Instead, as the U.S. EPA points out, ICAO's standards must be consistent with U.S. law and appropriate for U.S. domestic needs. The U.S. Clean Air Act is designed to advance technology-forcing standards and protect public health and welfare. If ICAO fails to adopt an adequate aviation standard that also complies with U.S. law, the U.S. EPA will need to set more stringent domestic standards.

The U.S. is by far the largest contributor to aircraft carbon pollution and thus bears a special responsibility to combat the problem. Combined greenhouse gas emissions from U.S. aircraft are 7 times higher than aircraft greenhouse gas emissions from China, which itself ranks second in the world for aircraft emissions. Should the U.S. EPA set U.S. domestic aviation carbon standards, they will likely serve as a catalyst for international action.

Reducing airplane emissions is critical to the overall goal of the Paris climate summit. Unless the international community confronts this rapidly growing source of pollution, the world will find it nearly impossible to combat the climate crisis.

KEY FINDINGS

1. If global aircraft CO_2 emissions were compared to emissions of individual countries, they would rank *seventh* just behind Germany, outranking Belgium, the Czech Republic, Ireland, Sweden and some 150 other countries.[1]

2. Global aviation's contribution to manmade climate change is forecast to *triple* by 2050.[2]

3. According to the Intergovernmental Panel on Climate Change (IPCC), total cumulative future anthropogenic emissions of CO_2 must remain below 2,900 gigatonnes.[3] Of that amount, 1,890 gigatonnes of CO_2 was already emitted by 2011, leaving 1,010 gigatonnes of CO_2 left to emit.[4]

4. The International Energy Agency (IEA) projects that the world's estimated remaining carbon budget, consistent with a 50 percent chance of keeping temperature rises below 2° C, will be consumed by 2040 without aggressive international carbon emission cuts.[5]

5. Even if all emissions reductions pledged by countries this year are implemented, the Earth will still suffer 2.7°-3.5°[7] Celsius of warming by century's end.

6. On its current trajectory, global aviation will generate an estimated 43 gigatonnes of CO_2 emissions under business as usual scenarios between 2016 and 2050 and consume more than 4 percent of the world's entire remaining carbon budget.[8]

7. For the last 18 years, the International Civil Aviation Organization (ICAO) has failed to implement any greenhouse gas regulations or other control measure.[9] Emissions standards currently under discussion would barely bend the climbing emissions curve.[10]

8. The United States is by far the largest aviation carbon polluter. The U.S. EPA estimates that emissions from U.S. aircraft "are *about 7 times higher* than aircraft greenhouse gas emissions from China," which itself is ranked *second* in the world for its aircraft emissions.[11]

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9. U.S. aviation alone is estimated to release 9 gigatonnes of CO_2 from 2016 through 2050 under business as usual scenarios.[12]

10. The U.S. EPA has proposed to determine that U.S. aviation greenhouse gas emissions endanger human health and welfare.[13] Once the "endangerment finding" becomes final, U.S. law mandates that standards be set.[14] The standards now under discussion at ICAO do not meet U.S. legal requirements.

11. The Obama administration's *Cost of Delaying Action to Stem Climate Change* report conservatively values the cost of *delay alone* as at least $150 billion for *every year* of delayed action that leads to overshooting the temperature increase by just 1 degree Celsius over pre-industrial levels, and sharply higher annual costs for every degree of warming thereafter.[15]

AIRCRAFT EMISSIONS: UP, UP AND STEEPLY CLIMBING

A. Global aviation's contribution to climate change is forecast to triple by 2050

Global greenhouse gas emissions from aircraft are a surprisingly large and steeply growing contributor to the climate crisis. If global aircraft emissions were compared to those of individual countries, they would rank *seventh*, just behind Germany, and ahead of Belgium, the Czech Republic, Ireland, Sweden and some 150 other countries.[16]

Moreover, aircraft are one of the fastest-growing emission sources. Under business-as-usual scenarios, global aviation emissions are scheduled to *triple* by 2050.[17] ICAO confirms the trend, projecting 4.9 percent annual growth in air-passenger traffic[18] and 5.2 percent annual growth in air-freight traffic from 2010,[19] more than doubling global air traffic by 2030.[20]

If global emissions triple by 2050 as forecast, that year aviation alone could emit over 3 gigatonnes of carbon under a high-growth, business-as-usual scenario.[21] By comparison, Germany, the sixth largest emission source by country, currently emits 0.84 gigatonnes per year.[22] Cumulatively, from 2016 to 2050, some estimates put global aviation emissions as high as 43 gigatonnes.[23] Yet carbon from aviation remains unregulated.

As of the date of this paper, some 146 countries, including the European Union submitting as a bloc, have pledged emissions reductions in anticipation of the Paris negotiations, and many industries are responding to the global climate-change challenge.[24] For example, the U.S. light-duty vehicle sector is projected to reduce its emissions by approximately 30 percent from a 2010 baseline by 2035,[25] and the U.S. Clean Power Plan is projected to decrease emissions from U.S. power plants by 32 percent over 2005 by 2030.[26] In Europe, emissions have fallen 23 percent between 1990 and 2014,[27] and the European Union has pledged emission reductions of 40 percent by 2030 over a 1990 baseline.[28]

The sum of these efforts and pledges remains insufficient, as discussed below; aviation, however, has so far contributed nothing at all. That failure undermines global climate efforts and is neither fair nor justifiable.

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244 **"The airline industry just isn't taking carbon pollution seriously."**
-Vera Pardee, senior attorney at the Center for Biological Diversity

B. The U.S. aviation industry is by far the largest carbon polluter in the sky

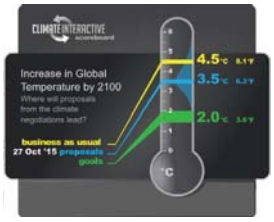
In 2014, the U.S. aviation industry alone emitted about 0.2 gigatonnes of greenhouse gases.[29] Aircraft are the third-largest source of greenhouse gas emissions in the U.S. transportation sector, accounting for some 11 percent of the sector and some 4 percent of U.S. emissions overall.[30] This carbon pollution makes U.S. aviation by far the largest contributor to the industry's global problem. According to U.S. EPA, emissions from U.S. aircraft "are *about 7 times higher* than aircraft greenhouse gas emissions from China," which itself is ranked *second* in the world for its aircraft emissions.[31] As another comparison, in 2014, CO_2 emissions from the entire U.S. electricity generation sector attributed to burning coal released 1.6 gigatonnes of CO_2.[32] That same amount (1.6 gigatonnes) has been released from U.S. airplanes since 2007, when the Center for Biological Diversity and others first petitioned the U.S. EPA to begin regulating aviation emissions.[33]

Cumulatively, U.S. aviation emissions from 2016 through 2050 will be 9 gigatonnes, assuming emissions grow as forecasted by the Federal Aviation Administration.[34]

C. Unchecked, aviation is set to consume some 4 percent of the world's remaining carbon budget.

Six years ago, at the 2009 Conference of the Parties, both industrialized and developing countries made pledges to keep global temperature increases below 2° C.[35] Even if every new emissions reduction pledged by countries this year is implemented, however, the Earth will still suffer 2.7[36]-3.5° C[37] of warming by century's end.

Figure 1 Climate Interactive, *Climate Score Board*, https://www.climateinteractive.org/tools/scoreboard/.



The 2° C target itself, however, is dangerously high. The UNFCCC released a report stating that surpassing even 1.5° C of warming will lead to "unacceptable" impacts.[38]

According to the Intergovernmental Panel on Climate Change (IPCC), total cumulative future anthropogenic emissions of CO_2 must remain below 2,900 gigatonnes.[39] Of that amount, 1,890 gigatonnes of CO_2 was already emitted by 2011, leaving 1,010 gigatonnes of CO_2 left to emit.[40] The International Energy Agency (IEA) projects that the world's estimated remaining carbon budget will be consumed by 2040 without aggressive international carbon emission cuts.[41] On its current trajectory global aviation will consume 43 gigatonnes of the world's remaining carbon budget by 2050.[42] The global climate budget, however, has no room to spare for that amount of carbon pollution.

While the light-duty vehicle sector will reduce its emissions by approximately 30 percent by 2035, global aviation emissions are scheduled to triple by 2050.

D. Cost of Delay

The IPCC and the United Nations Environment Program (UNEP) agree that immediate action is by far more cost-effective than deferred action.[43] UNEP warned that "after 2020, the world will have to rely on more difficult, costlier and riskier means of meeting the [emissions reduction] target."[44]

These conclusions are supported by the Obama administration's *Cost of Delaying Action to Stem Climate Change* ("Cost of Delay Report").[45] The report conservatively values the cost of *delay alone* at 0.9 percent of global output for *every year* of delayed action that leads to overshooting the temperature increase by just one degree Celsius over pre-industrial levels, and the next degree increase would incur additional costs of 1.2 percent.[46] Put into perspective, 0.9 percent of the United States' gross domestic product translates to approximately $150 billion.[47]

As it stands, nations are struggling to make it to 1.5/2° C. Reining in unchecked aviation pollution is a critical task as the world runs out of time for meaningful action.

What is the International Civil Aviation Organization?

ICAO is a specialized agency within the United Nations responsible for establishing international standards for aircraft.

In 1998, the Kyoto Protocol to the United Nations Framework Convention on Climate Change directed developed "Annex I" countries to work through ICAO to reduce emissions of greenhouse gases from international aviation.

In the 18 years since ICAO was assigned that responsibility, the organization has not adopted any measure to tackle greenhouse gas emissions.

Sources:

International Civil Aviation Organization, *About ICAO*, http://www.icao.int/about-icao/Pages/default.aspx.

Kyoto Protocol to the United Nations Framework Convention on Climate Change, art. 2(2), Dec. 10, 1997, UN Doc. FCCC/CP/1997/7/Add.1, 37 ILM 22 (1998), *available at* http://unfccc.int/resource/docs/convkp/kpeng.pdf.

Transport & Environment, *Grounded: How ICAO Failed to Tackle Climate Change and What Should Happen Now* (2010), http://www.transportenvironment.org/publications/grounded-how-icao-failed-tackle-aviation-and-climate-change.

A ROLE FOR REGULATORS

In light of the crucial need not just to decrease the upward slope of aviation greenhouse gas emissions but also to reduce that pollution quickly and dramatically, regulators must promptly set stringent regulatory standards. The standards now under consideration at ICAO, however, do next to nothing to curb aviation's carbon pollution. If ICAO does not set sufficiently stringent standards, the U.S. EPA must step in to do so.

A. International Civil Aviation Organization's History of Poor Regulation

Eighteen years — that is how long ICAO has failed to regulate aviation carbon pollution.[48] During that time, ICAO has failed to adopt a single measure to curb aircraft-induced global warming.[49]

ICAO's technical group, the Committee on Aviation Environmental Protection (CAEP), did not begin to work on a CO_2 efficiency standard until 2010, projecting the delivery of a completed standard by 2016.[50] CAEP's work progressed in two phases: first, the development of a certification requirement or

"metric" by which fuel efficiency would be measured; and second, setting the stringency level at which certification would be set.

Examination of both the metric and the stringency proposals reveals that the eventual standard will do little, if anything, to affect the ever-increasing aviation emissions and will in fact allow significant emissions *increases* from the sector.

1. ICAO's Inaccurate CO_2 Metric

In 2013, ICAO finalized a CO_2 certification requirement, or metric, to serve as the basis for a global CO_2 standard for new aircraft.[51] That metric, however, fails to accurately account for aviation CO_2 emissions.

First, as ICCT identified, by failing to take into account the fuel used in "landing and takeoff, taxi, climb and descent"[52] and instead considering only cruise fuel burn, the metric does not accurately capture typical flight operations or their emissions.[53] It omits approximately 8 to 10 percent of fuel used for medium- to long-haul flights and 20 to 25 percent of fuel consumed during short-haul flights.[54] According to ICCT, this omission also means that any regulatory standard will not require the use of cost-effective and available fuel-efficiency technologies aimed at increasing efficiency during those operations, "such as electric taxi or more efficient auxiliary power units that reduce fuel burn on those flight segments."[55]

ICAO's approach fails to account for approximately 8 to 10 percent of aircraft fuel used during medium- to long-haul flights and 20 to 25 percent used during short-haul flights.

Second, because ICAO gives no credit to lightweight materials, the metric does not incentivize the adoption of crucial design mechanisms or technologies such as lightweight composites that reduce aircraft weight and increase fuel efficiency.[56]

Finally, ICAO's approach selects test points for identifying fuel efficiency that ICCT says "are not representative of typical operations,"[57] and "improvements measured on the metric may not necessarily translate to real emissions reductions in-service."[58] In sum, ICAO's metric fails to capture airlines' true fuel burn and is unacceptable.

2. ICAO's Insufficient Proposed CO_2 Stringency Levels

ICAO's proposed CO_2 stringency levels suffer from the following flaws:

(1) *Limited Applicability:* ICAO is considering three potential stringency levels, but appears likely to adopt the least stringent among them. This stringency level would apply only to those future aircraft types that are *newly designed* after the standard's proposed implementation date of 2023.[59] This limitation, if adopted, would mean that only a tiny fraction (as low as 5 percent) of the fleet would be covered by any standard *by 2030.*[60]

(2) *Pass/Fail Basis:* the proposed standard would be applied on a pass/fail basis to individual aircraft only; as such, it would do nothing to achieve fleet-wide reductions despite dramatic industry growth.[61]

(3) *2016 Technology Levels:* ICAO's stringency standard is proposed to be based on technology in effect in 2016, 4 to 7 years *behind* technology in existence on the proposed implementation date of 2023,[62] and some 8 to 12 years *behind* the date that newly designed aircraft covered by the standard are expected to enter into service.[63]

Judged by what is known about purchase orders for aircraft to be delivered over the next 8 to 10 years, the ICAO standard will do next to nothing to reduce emissions below business-as-usual scenarios.

i. Limited Applicability

To determine which aircraft would have to comply with its regulations, ICAO identified three possible options in order of increasingly broad coverage.

- *Weakest*: The weakest option involves applying the standards solely to completely new aircraft type designs.

  Under this option, covered aircraft are defined by U.S. EPA as aircraft that "have never been manufactured prior to the effective date of a standard."[64] According to an ICCT researcher, Anastasia Kharina, considering the 25- to 30-year operational lifetimes of aircraft, most airplane types "already announced" will essentially be "grandfathered into the standard in perpetuity."[65] By 2030, the standard would cover only 5 percent of the global fleet.[66] As the International Coalition for Sustainable Aviation (ICSA) points out, the standard may "in fact increase emissions" by incentivizing delay in the release of new designs to avoid regulation.[67]

- *Intermediate:* The intermediate option also involves limiting applicability to new aircraft types only, but would also include new "in-production aircraft that have a significant change in CO_2 emissions" according to U.S. EPA.[68]

  This option would cover newly produced aircraft undergoing either (a) "changes in type design that may adversely affect . . . CO_2 emissions" – that is, physical changes causing CO_2 emissions increases by a yet to be determined amount[69] – or (b) "extensive" changes to "design, configuration, power or mass" that would trigger "new investigation of compliance with the applicable airworthiness regulations."[70] Yet, as U.S. EPA has pointed out, "adverse" changes of this nature are rare due to "substantial market forces to alleviate any adverse effects on aircraft fuel burn or CO_2 emissions."[71]

- *Most Expansive*: The most expansive applicability option under consideration at ICAO involves standards that apply to both new aircraft types and new in-production aircraft.

Whereas newly designed aircraft types and adverse changes to in-production designs are and will remain rare, as U.S. EPA has pointed out, "incremental improvements [of in-production aircraft] will likely be frequent and occur in the near term."[72]

Notably, regardless of which of these three alternatives ICAO may adopt, *none requires any efficiency improvements for existing aircraft* already in service, regardless of the cost-effectiveness and availability of technology that could boost the efficiency of the existing fleet.

The standard would be set at technology levels *8 to 12 years behind* the technologies available when covered new aircraft types enter service.

ii. Pass/Fail Basis

Applying a standard only as a pass/fail requirement for individual aircraft types means that industry need only focus on making improvements to its least-efficient planes, rather than develop the kind of fleet-wide technology improvements incentivized by the corporate average standards already in wide use for vehicles.[73]

iii. 2016 Technology Levels

The stringency levels would be based on technologies *in common use as of 2016*[74] for aircraft entering into service in the 2024 to 2028 timeframe. Thus, any standard would be set at technology levels *8 to 12 years behind* the technologies available when covered "new aircraft types" enter service.

As U.S. EPA recognizes, this "would likely result in no additional CO_2 reductions beyond what would have occurred absent a CO_2 standard, either for the near- and mid-term, about 5 to 10 years from 2016, or even in the longer term of 20 years plus."[75]

The limited scope of applicability, distant implementation dates, and outdated technology requirements mean that ICAO's CO_2 proposed standards are wholly inadequate.

B. The Role of U.S. EPA

Spurred by litigation by the Center for Biological Diversity and allies, the U.S. EPA finally moved to begin setting U.S. domestic aircraft carbon pollution standards in July of 2015 with two concurrent actions:[76]

- *Proposed Finding That Greenhouse Gas Emissions From Aircraft Cause or Contribute to Air Pollution That May Reasonably Be Anticipated To Endanger Public Health and Welfare ("Endangerment Finding")*, and
- *Advance Notice of Proposed Rulemaking ("ANPR").*

Clean Air Act, Sec. 231(a)(2)(A):

"The Administrator shall, from time to time, issue proposed emission standards applicable to the emission of any air pollutant from any class or classes of aircraft engines which in his judgment causes, or contributes to, air pollution which may reasonably be anticipated to endanger public health or welfare."

The Endangerment Finding proposes to find that greenhouse gas emissions from aircraft endanger public health and welfare under section 231(a) of the U.S. Clean Air Act.[77] When the Endangerment Finding is finalized next year, U.S. law *compels* the agency to set domestic aircraft CO_2 emission standards.[78]

The ANPR discusses and seeks input related to setting those standards. Specifically, the U.S. EPA has stated that its adoption of any ICAO standard is "contingent on" whether any such "international aircraft CO_2 standard . . . is consistent with [U.S. law] and is appropriate for domestic needs in the United States."[79] U.S. EPA's adoption of a future ICAO standard is by no means automatic: if ICAO's standard does not pass muster under U.S. law, EPA must set more stringent standards.

CASE STUDY: Mobile Sources

The U.S. EPA has previously determined that greenhouse gas emissions endanger the public health and welfare and has taken action to regulate light, medium, and heavy duty vehicles.

In the summer of 2015, the U.S. EPA and the National Highway Traffic Safety Administration proposed fuel efficiency and greenhouse gas standards for medium- and heavy-duty vehicles. While the proposal is less ambitious than it could be, the proposed standards would cut emissions by 1 billion metric tons and provide net social benefits of over $200 billion.

Benefits come from total fuel savings and from significant climate benefits, improvements in public health, and increased U.S. energy security.

Sources:
EPA, *Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles Phase 2*, 80 Fed. Reg. 40,138 (Jul. 13, 2015).

Environmental Protection Agency, *EPA and NHTSA Propose Greenhouse Gas and Fuel Efficiency Standards for Medium- and Heavy-Duty Trucks: By the Numbers* (2015), *available at* http://www3.epa.gov/otaq/climate/documents/420f15903.pdf.

The White House, *Fact Sheet: President Obama to Announce Historic Carbon Pollution Standards for Power Plants*, https://www.whitehouse.gov/the-press-office/2015/08/03/fact-sheet-president-

C. Why Adopting ICAO's Standard Will Not Satisfy Clean Air Act Requirements

In 2011, CAEP, ICAO's technical group, proclaimed the purpose of an international CO_2 emissions standard to be the achievement of "reductions from the aviation sector beyond expected 'business as usual.'"[80] Under this unambitious goal, saving a single gallon of fuel beyond an undefined and uncontrolled maximum would suffice.

By contrast, the U.S. EPA has an obligation under the Clean Air Act to protect public health and welfare by *reducing* or even *preventing pollution* altogether.[81] An ICAO standard that contemplates no more than *de minimis* reductions in emissions relative to a steeply rising business-as-usual scenario is incompatible with the U.S. EPA's mandate.

Moreover, the U.S. Clean Air Act is intended and designed to be technology-forcing and to stimulate innovation. In a prior rulemaking, the U.S. EPA correctly noted that U.S. law does not require it to "demonstrate that a technology [selected for inclusion in a standard] is currently available universally or over a broad range of aircraft."[82]

In other words, technology still on the drawing board may be selected as part of the emission standard. Basing an emission standard on technology 10 to 12 years behind existing technology standards at the time of implementation, as ICAO contemplates, is directly contrary to the technology-forcing nature of the U.S. Clean Air Act.

If, as appears likely, ICAO's final standard does not meet U.S. legal requirements, the U.S. EPA will be required to set a more stringent U.S. domestic standard. Such a standard, in turn, would likely serve as a catalyst leading to international adoption.

D. Why Focusing On Market-Based Mechanisms Is The Wrong Approach

The airline industry avows a voluntary emissions goal of carbon-neutral growth after 2020 to be achieved through "market-based measures" consisting of emissions-offset purchases. The efficacy of offsets in reducing carbon emissions, however, is questionable. It is difficult, for example, to ascertain whether actions intended to preserve carbon sinks have in fact done so, or whether those sinks would have remained intact in any event; and numerous other problems are inherent in identifying, monitoring and verifying offsets.

Offsets make sense only after stringent energy efficiency standards have been applied first so that emissions are *avoided and prevented* in the first place – rather than "offset" by uncertain methods.

E. Aviation efficiency can be improved significantly

That the airline industry can make enormous fuel-efficiency improvements is unquestionable. For example, according to a recent ICCT report, some airline carriers, British Airways among them, are up to *51 percent less fuel efficient* than their competitors, such as Norwegian Air.[83]

Implementing standards that raise the performance of the least fuel-efficient carriers to what is presently achieved by their competitors makes common sense, as it prevents rather than merely offsets carbon pollution. Offsets may have a role once efficiency has been maximized through cost-effective technological and operational measures, but they should not take their place.

Smarter investment in technology and changes in operations could transform a carrier like British Airways to one like Norwegian. Yet the history of airline investments shows that absent mandatory standards, airlines will significantly underinvest in currently available efficiency improvements. A prior ICCT study of air carrier fuel efficiency noted that improved fuel efficiency could have brought about savings of $2.26 billion or more for the airlines in 2010 alone.[84]

Airlines can sustain the cost of improved technology requirements and would likely benefit significantly from the associated reduction in fuel expenses. Last year, American, Delta, Southwest, and United Continental earned $2.88 billion,[85] $659 million,[86] $1.13 billion,[87] and $1.14 billion[88] in net income, respectively.

Investing earnings in efficiency improvements for new and existing planes and operations generally pays for itself in the form of lowered fuel expenses, sometimes many times over. For example, one viable aircraft technology under development by Boeing as part of the U.S. Federal Aviation Administration's Continuous Lower Energy, Emissions, and Noise (CLEEN) program could save 340 million gallons of fuel a year — an estimated $1.2 billion in savings for the industry if used fleet-wide in the U.S.[89]

F. U.S. EPA is not required to follow ICAO's standards

The U.S. EPA acknowledges its authority to implement regulations that are more stringent than ICAO's international standards. In the EPA's first rulemaking under Clean Air Act section 231 (curtailing NO_x emissions from aircraft), the agency noted its "discretion to adopt more stringent NO_x standards . . . if the international consensus standards ultimately prove[d] insufficient to protect U.S. air quality."[90] Similarly, in the greenhouse gas ANPR, the EPA stated that it would adopt the "international aircraft CO_2 standard [if] consistent with CAA section 231 and . . . appropriate for domestic needs in the United States."[91]

If whatever final standards ICAO adopts will not affect, much less reduce, U.S. domestic emissions for decades, the U.S. EPA must step forward. The U.S.' exceptional and vastly disproportionate position as by far the greatest emitter of global aircraft greenhouse gases underscores its unique responsibility to reduce those emissions through enforceable domestic regulations. Once it does so, meaningful international standards will follow.

NEXT STEPS

Climate science, as well as the United States' international climate commitments, dictate that greenhouse gases, including those from aircraft, must be *reduced*; merely bending the upward curve slightly or even holding it level is insufficient. Every year of unnecessary delay in reducing greenhouse gas emissions from aircraft in the face of steeply rising, persistent and irreversible costs and harms from climate change, including the acknowledged possibility that mitigation will be too late altogether,[92] is unreasonable and unjustifiable.

The ICCT report, which found a 51 percent gap between the best and the worst performing transatlantic flight carriers, has demonstrated that airlines are capable of achieving much greater fuel-efficiency today.[93] Standards can be developed to greatly improve new aircraft based on currently existing technology as well as technology on the drawing board. Before the aviation industry looks to offsets that are difficult to trace, verify, and monitor, ICAO must mandate stringent emission standards for all aircraft. Failing that, the U.S. EPA should establish standards as mandated under U.S. law. The United States acknowledges that it must be a "world leader" in the "global movement to produce and consume energy in a better, more sustainable way."[94]

CONCLUSION

UNFCCC cannot continue to ignore airplane pollution in the international negotiations and must include aviation in the Paris agreement, obligating aviation to contribute its fair share to meeting the target of holding temperatures below 2º C. Oversight by the Conference of the Parties will help ensure that ICAO follows through on its responsibility to reduce aviation's emissions. Barring that, the U.S. EPA will have to do so.

Combined greenhouse gas emissions from U.S. aircraft are *about 7 times higher* than aircraft greenhouse gas emissions from China, which itself is ranked *second* in the world for aircraft emissions.

Cover photograph courtesy of D Sleeter2000/Flickr.

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[11] Endangerment Finding and ANPR, *supra* note 1, at 37,788 (emphasis added). In total, greenhouse gas emissions from U.S. "covered" aircraft are "about 6 times" more than corresponding emissions from China. *Id.*

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Exhibit Z

San Diego Association of Governments 2015 RTP/SCS EIR (excerpt)

Table 4.8-11
SB 375 GHG Reduction Targets and GHG Emissions under the Proposed Plan, 2035

	lbs CO_2 per person per day, 2035
Per Capita Emissions under the proposed Plan	20.3~~19.8~~
Percent Reductions under the proposed Plan	-21%~~-24%~~
ARB Target	-13%

Source: Appendix G-3 to the EIR
Note: Average weekday per capita CO2 reductions for passenger cars and light-duty trucks from 2005 level of 26.0 pounds per person per day.
The revised emissions and percentages in this table have been decreased by 2% per ARB requirement that EMFAC2014 model results be revised with 2% percent adjustment factor.

2035 Conclusion

Implementation of the proposed Plan would not conflict with SB 375 emission reduction targets for 2035. Therefore, this impact (GHG-3) in the year 2035 is less than significant.

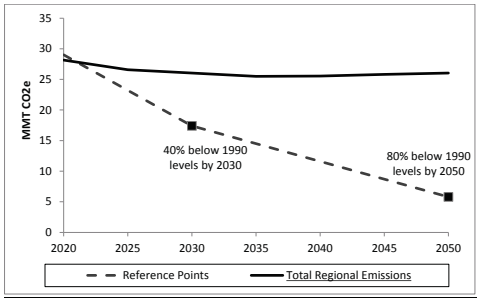
GHG-4 BE INCONSISTENT WITH THE STATE'S ABILITY TO ACHIEVE THE EXECUTIVE ORDER B-30-15 AND S-3-05 GOALS OF REDUCING CALIFORNIA'S GHG EMISSIONS TO 40 PERCENT BELOW 1990 LEVELS BY 2030 AND 80 PERCENT BELOW 1990 LEVELS BY 2050

ANALYSIS METHODOLOGY

The analysis evaluates whether the proposed Plan is inconsistent with the State's ability to achieve the Executive Order S-3-05 goal of reducing California's GHG emissions to 80 percent below 1990 levels by 2050. The analysis also evaluates whether the proposed Plan is inconsistent with the State's ability to achieve the Executive Order B-30-15 goal of reducing California's GHG emissions to 40 percent below 1990 levels by 2030.

The Executive Order S-3-05 goal of reducing California's GHG emissions to 1990 levels by 2020 was adopted in AB 32, and is evaluated in Impact GHG-2. Therefore, this analysis focuses on whether the region would achieve the 2050 goal. 2035 is also addressed in Impact GHG-4 as an interim year using the Executive Order B-30-15 goal of reducing California's GHG emissions to 40 percent below 1990 levels by 2030.

To perform this analysis, SANDAG identified estimated 2035 and 2050 emissions reduction reference points for the region. Note that there is no requirement that the SANDAG region's emissions be reduced by the same percentage ("equal share") as the statewide percentage in order for the State to achieve the Executive Order's goal. The proposed Plan's impacts nevertheless are considered significant if total emissions in the San Diego region exceed the estimated 2035 or 2050 GHG reduction reference points. A graph comparing regional emissions projected in the proposed Plan versus the Executive Order-based reference points is provided as Figure 4.8-1.



Source: Appendix G-1 to the EIR.
Note: the solid black line has been relabeled from "proposed Plan emissions" to "total regional emissions" and reflects the revised GHG emissions based on the minor modifications to the project description and the new version of EMFAC2014 (v1.0.7) released by ARB in May 2015. On-road GHG emissions in the Draft EIR were calculated using EMFAC2014 (v1.0.1).

Figure 4.8-1. Regional GHG Reductions Required to Meet Executive Order Reference Points for 2035 and 2050 vs. ~~Proposed Plan~~Total Regional Emissions

SANDAG identified the 2050 reference point by applying an 80 percent reduction to the San Diego region's 1990 emissions level. The 40 percent reduction was applied to the region's 1990 emissions level to identify a 2030 reference point, which was then used to develop a 2035 reference point by using a straight line trajectory from the 2030 goal to the 2050 goal.

As described in Impact GHG-2, the San Diego region's 1990 GHG emissions totaled 29 MMT CO_2e (see Appendix G-1 to the EIR). By applying the methodology described above, the 2035 reference point was identified as 14.5 MMT CO_2e, and the 2050 reference point was identified as 5.8 MMT CO_2e.

For the purpose of evaluating impacts under Impact GHG-4, because the Executive Order goals include both regional growth and land use change and the transportation network, the analysis has not been separated into the two categories. The impact assessment includes both regional growth and land use change and the transportation network. Emission calculations are provided in Appendix G-1.

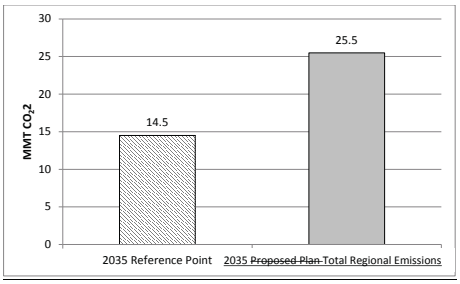
During the timeframe of the proposed Plan, climate change effects that are likely to exacerbate the proposed Plan's greenhouse gas emissions impacts include but are not limited to increases in temperatures and frequency, duration, and intensity of heatwaves (which could lead to increases in GHG emissions from local fossil fuel-fired power plants to meet electricity demands); and wildfires (which release GHG emissions of criteria pollutants. In general, these climate change effects would increase between 2020 and 2050. Climate change effects are discussed in more detail in Appendix F.

2035

Regional Growth and Land Use Change and Transportation Network Improvements and Programs

As discussed under Impact GHG-1, under implementation of the proposed Plan, total GHG emissions for the San Diego region in 2035 are projected to be approximately 25.5 MMT CO_2e, or 28 percent lower than GHG emissions in 2012 (Table 4.8-7). To be in line with its "equal share" of the state emissions reduction goals set forth in Executive Orders S-3-05 and B-30-15, regional GHG emissions would need to decrease to 14.5 MMT CO_2e by 2035.

Figure 4.8-1 shows a projection of "equal share" reductions for the San Diego region, compared to estimated proposed Plan emissions. In addition, Figure 4.8-2 compares the Executive Order-based 2035 reference point for the region with projected GHG emission under the proposed Plan. This is a significant impact.



Source: Appendix G-1 to the EIR

Figure 4.8-2. 2035 GHG Emissions Reference Point vs. ~~Proposed Plan~~Total Regional Emissions

2035 Conclusion

Because the total emissions in the San Diego region of 25.5 MMT CO_2e in 2035 would exceed the regional 2035 GHG reduction reference point of 14.5 MMT CO_2e (which is based on EO-B-30-15 and EO-S-3-05), the proposed Plan's 2035 GHG emissions would be inconsistent with state's ability to achieve the Executive Orders' GHG reduction goals. Therefore, this impact (GHG-4) in the year 2035 is significant.

Exhibit AA

Hillary Marshall, "We Must Prioritize Smarter Transit Options to and from Airports," *Huffington Post* (June 27, 2016)

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November 15, 2016

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Hillary Marshall Become a fan
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We Must Prioritize Smarter Transit Options To And From Airports

Posted: 06/27/2016 3:36 pm EDT | Updated: 06/27/2016 3:59 pm EDT

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I spend a lot of time talking about airports and air travel, so it was a pleasure to attend a recent event at the Toronto Region Board of Trade where the discussion centered on aviation and transit. The need to have simple transit options to, from and around any airport is a growing area of importance all around the world. One solution for many airports has been to develop "multi-modal" transportation hubs: a network that uses everything from regional trains and buses, to local streetcars and light rail to move people and goods beyond the airport boundaries into employment areas and local communities.

Leading cities like New York, London, Paris, Frankfurt, Amsterdam, Hong Kong and Shanghai have all focused on improving "people moving" for some time now, realizing that their airports have become the centre of their region's connectivity. In a world where business is increasingly conducted between mega-regions, getting to and from the airport quickly is an economic advantage. In addition, as engines of economic activity, hub airports are often the anchor employer in a zone that depends on good ground transportation connections for travellers and employees alike.

Let's look at some of the key benefits of multi-modal airport hubs:

- **Global airport hubs mean job creation**

Once upon a time, cities were built around ports, then rail stations. Today, airports are the gateway to the world, which explains why so many corporate head offices, as well as other types of businesses, often locate close to the airport. Here in Toronto, the employment zone around Toronto Pearson is second only to the downtown core in terms of jobs in Canada, with 300,000 people working in its vicinity. Many of these workers are employed at the airport directly or at businesses in the surrounding area.
Across the globe, Zhengzhou, China -- home to one of the country's newest airports -- is a special economic zone that has become a massive industrial, commercial and logistics hub built specifically with air transport at its core. This zone now is five times the size of Manhattan and generates nearly US$6 billion in imports and exports each year. In the Netherlands, the Amsterdam Airport Schiphol area is home to more than 1,000 businesses, while the area around Dallas-Fort Worth International Airport holds the headquarters of nine Fortune 1,000 companies.

- **Growing airports need modern transit**

The growing employment zones around airports translate into movement of more people and goods. Given that air traffic is expected to double in North America over the next 30 years, we're faced with a massive prosperity dilemma: airports need help getting people out of cars and onto transit. Today, Vancouver Airport is the national leader for increased transit use to and from the airport. With the introduction of the Canada Line, passengers have a simpler way of accessing the airport and its surrounding region. However, more than 70 per cent of

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people still arrive at Vancouver's airport by car. In Toronto, we have even more work to do -- approximately 92 per cent of travellers and workers arrive in cars every day.
At Paris' Charles De Gaulle airport, passengers have the luxury of many different transit options, which has resulted in only 40 per cent of travellers arriving by car. Back in Toronto, the road network around the airport is home to more car trips than anywhere else in the country, and represents the highest value roads in Ontario with more than $750 million in goods moving through them each day.

- **Well-connected systems improve our quality of life**

Airports are the future of the modern city region. They are small cities that create employment for thousands of people, from air traffic controllers and baggage handlers, to pilots and taxi drivers. Without connectivity, getting to and from flights becomes an issue, but getting to and from work can be an even bigger challenge. It stands to reason that a well-connected airport serves its passengers and its region well.
So, how do we get more people out of their cars and into transit to allow for the road networks around airports to become less congested? It's simple: our transit agencies and city planners need to factor in multi-modal connections to airports.

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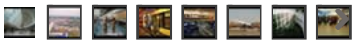

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Conversations

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Exhibit BB

"Over 190 Countries Adopt Plan to Offset Air Travel Emissions," T*he New York Times*
(October 6, 2016)

The New York Times http://nyti.ms/2dBuzJ8

SCIENCE

Over 190 Countries Adopt Plan to Offset Air Travel Emissions

By HENRY FOUNTAIN OCT. 6, 2016

Governments from more than 190 countries on Thursday adopted a measure that for the first time will reduce the climate impact of international jet travel.

The accord adds an exclamation point to a week in which enough countries signed onto the broader Paris climate deal to ensure that it will enter into force later this year.

The aviation plan, the product of years of negotiations, was approved by acclamation at a meeting of the International Civil Aviation Organization, or I.C.A.O., in Montreal.

The measure could force air carriers to take major steps to improve fuel economy in their routes and fleets, very likely accelerating the purchase of newer, more efficient planes.

Carriers may pass the cost of the program on to consumers in higher airfares, though most experts think any increases would be relatively small.

Leaders hailed the accord, which will take effect in 2021, as a major step in reducing the environmental impact of international aviation, which is currently responsible for about 2 percent of worldwide emissions of greenhouse gases.

Secretary of State John Kerry called the measure "unprecedented" and said it built on the Paris agreement and other international efforts to reduce emissions.

"This measure addresses a growing source of global emissions, demonstrates the international community's strong and growing support for climate action in all areas and helps avoid a patchwork of potentially costly and overlapping regional and national measures," Mr. Kerry said in a statement.

Along with international shipping, international aviation was not covered by the Paris accord reached in December. On Tuesday, with the ratification of that pact by the European Union, it reached a threshold — acceptance by countries responsible for more than 55 percent of the world's emissions — that causes it to go into effect. It is expected to enter into force before the next large United Nations climate meeting, in Morocco early next month.

The aviation measure will be voluntary for the first six years, and even countries that commit to it voluntarily will be allowed to opt out on relatively short notice.

Under the program, airlines will buy credits to offset emissions from individual flights. The credits will come from alternative energy installations, forest conservation programs and other projects that prevent some amount of greenhouse gas emissions.

But critics point to several possible problems.

Some environmental groups said the plan did not go far enough, forecasting that it would fall short of the goal originally set by the aviation organization to offset all of the growth in emissions from air travel after 2020.

At least 65 nations, including the United States, China and the European Union countries, have signaled that they will participate during the voluntary phase of the measure.

The measure exempts many smaller countries that do not have large international air carriers, and because of rules on competition, that could mean that some popular routes from participating countries could be exempt as well.

Several countries that are significant sources of international air travel, including Russia and India, on Thursday expressed formal reservations about the agreement, indicating they would not participate, at least for now.

Critics and supporters of the measure alike noted that much work remains to be done before the agreement is put into effect. Mechanisms must be developed to monitor and report current emissions, and criteria established to select conservation programs and other projects that will count toward offset credits.

The aviation industry has supported the idea of mitigating the climate impact of its jet engines. Manufacturers have taken steps to improve the efficiency of current engines, and some carriers have begun replacing some of their conventional jet fuel with cleaner-burning biofuels.

Some airlines have also encouraged environmentally conscious passengers to buy offsets voluntarily for their flights. Under the new measure, the airlines would buy the offsets, and they could pass the cost on to all passengers. But one estimate by the aviation organization forecasts that by 2025 the annual cost to airlines would be less than 1 percent of revenue.

On Thursday, industry representatives welcomed adoption of the measure.

Michael Gill, executive director of the Air Transport Action Group, a coalition of manufacturers, carriers and other companies, said he was heartened by how many countries, including small developing countries with a lot at stake as climate change takes hold, had agreed to participate voluntarily.

"Despite some reservations over the scheme being voluntary in its initial years, the support of all these states — large, small, developed and developing — shows the commitment of the international community, working through I.C.A.O., to deliver a robust measure," Mr. Gill said in a statement.

But an analysis by the International Council on Clean Transportation, a research group, shows that the agreement as approved will offset only about three-quarters of the growth in emissions from international aviation above 2020 levels. That means the proposal falls short of the goal originally set by the International Civil Aviation Organization of "carbon-neutral" growth after 2020.

Exhibit CC

Governor's Office of Planning and Research, Technical Advisory, "CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review," 2008.

Technical Advisory

CEQA AND CLIMATE CHANGE: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review

This technical advisory is one in a series of advisories provided by the Governor's Office of Planning and Research (OPR) as a service to professional planners, land use officials and CEQA practitioners. OPR issues technical guidance from time to time on issues that broadly affect the practice of CEQA and land use planning. The emerging role of CEQA in addressing climate change and greenhouse gas emissions has been the topic of much discussion and debate in recent months. This document provides OPR's perspective on the issue.

JUNE 19, 2008

STATE OF CALIFORNIA
Arnold Schwarzenegger, Governor

GOVERNOR'S OFFICE OF PLANNING AND RESEARCH
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I. PURPOSE

General scientific consensus and increasing public awareness regarding global warming and climate change have placed new focus on the California Environmental Quality Act (CEQA) review process as a means to address the effects of greenhouse gas (GHG) emissions from proposed projects on climate change. Many public agencies—along with academic, business, and community organizations—are striving to determine the appropriate means by which to evaluate and mitigate the impacts of proposed projects on climate change. Approaches and methodologies for calculating GHG emissions and addressing the environmental impacts through CEQA review are rapidly evolving and are increasingly available to assist public agencies to prepare their CEQA documents and make informed decisions.

The Governor's Office of Planning and Research (OPR) will develop, and the California Resources Agency (Resources Agency) will certify and adopt amendments to the Guidelines implementing the California Environmental Quality Act ("CEQA Guidelines"), on or before January 1, 2010, pursuant to Senate Bill 97 (Dutton, 2007). These new CEQA Guidelines will provide regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents. In the interim, OPR offers the following informal guidance regarding the steps lead agencies should take to address climate change in their CEQA documents. This guidance was developed in cooperation with the Resources Agency, the California Environmental Protection Agency (Cal/EPA), and the California Air Resources Board (ARB).

II. BACKGROUND

Climate change refers to any significant change in measures of climate, such as average temperature, precipitation, or wind patterns over a period of time. Climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere and alter the surface and features of the land. Significant changes in global climate patterns have recently been associated with global warming, an average increase in the temperature of the atmosphere near the Earth's surface, attributed to accumulation of GHG emissions in the atmosphere. Greenhouse gases trap heat in the atmosphere, which in turn heats the surface of the Earth. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through the combustion of fossil fuels (i.e., fuels containing carbon) in conjunction with other human activities, appears to be closely associated with global warming.

State law defines GHG to include the following: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (Health and Safety Code, section 38505(g).) The most common GHG that results from human activity is carbon dioxide, followed by methane and nitrous oxide.

Requirements of AB 32 and SB 97

Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006 (Nunez, 2006), recognizes that California is the source of substantial amounts of GHG emissions. The statute begins with several legislative findings and declarations of intent, including the following:

> Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snow pack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems. (Health and Safety Code, section 38501.)

In order to avert these consequences, AB 32 establishes a state goal of reducing GHG emissions to 1990 levels by the year 2020 (a reduction of approximately 25 percent from forecast emission levels) with further reductions to follow. The law requires the ARB to establish a program to track and report GHG emissions; approve a scoping plan for achieving the maximum technologically feasible and cost effective reductions from sources of GHG emissions; adopt early reduction measures to begin moving forward; and adopt, implement and enforce regulations – including market mechanisms such as "cap-and-trade" programs – to ensure the required reductions occur. The ARB recently adopted a statewide GHG emissions limit and an emissions inventory, along with requirements to measure, track, and report GHG emissions by the industries it determined to be significant sources of GHG emissions.

CEQA requires public agencies to identify the potentially significant effects on the environment of projects they intend to carry out or approve, and to mitigate significant effects whenever it is feasible to do so. While AB 32 did not amend CEQA to require new analytic processes to account for the environmental impacts of GHG emissions from projects subject to CEQA, it does acknowledge that such emissions cause significant adverse impacts to human health and the environment.

Senate Bill 97, enacted in 2007, amends the CEQA statute to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. It directs OPR to develop draft CEQA Guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions" by July 1, 2009 and directs the Resources Agency to certify and adopt the CEQA Guidelines by January 1, 2010.

Requirements of CEQA

CEQA is a public disclosure law that requires public agencies to make a

good-faith, reasoned effort, based upon available information, to identify the potentially significant direct and indirect environmental impacts—including cumulative impacts— of a proposed project or activity. The CEQA process is intended to inform the public of the potential environmental effects of proposed government decisions and to encourage informed decision-making by public agencies. In addition, CEQA obligates public agencies to consider less environmentally-damaging alternatives and adopt feasible mitigation measures to reduce or avoid a project's significant impacts.

The lead agency is required to prepare an Environmental Impact Report (EIR), a Mitigated Negative Declaration, or equivalent document, when it determines that the project's impacts on the environment are potentially significant. This determination of significance must be based upon substantial evidence in light of all the information before the agency.

Although the CEQA Guidelines, at Appendix G, provide a checklist of suggested issues that should be addressed in an EIR, neither the CEQA statute nor the CEQA Guidelines prescribe thresholds of significance or particular methodologies for performing an impact analysis. This is left to lead agency judgment and discretion, based upon factual data and guidance from regulatory agencies and other sources where available and applicable. A threshold of significance is essentially a regulatory standard or set of criteria that represent the level at which a lead agency finds a particular environmental effect of a project to be significant. Compliance with a given threshold means the effect normally will be considered less than significant. Public agencies are encouraged but not required to adopt thresholds of significance for environmental impacts. Even in the absence of clearly defined thresholds for GHG emissions, the law requires that such emissions from CEQA projects must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact.

We realize that perhaps the most difficult part of the climate change analysis will be the determination of significance. Although lead agencies typically rely on local or regional definitions of significance for most environmental issues, the global nature of climate change warrants investigation of a statewide threshold of significance for GHG emissions. To this end, OPR has asked ARB technical staff to recommend a method for setting thresholds which will encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the state. Until such time as state guidance is available on thresholds of significance for GHG emissions, we recommend the following approach to your CEQA analysis.

III. RECOMMENDED APPROACH

Each public agency that is a lead agency for complying with CEQA needs to develop its own approach to performing a climate change analysis for projects that generate GHG emissions. A consistent approach should be applied for the analysis of all such projects, and the analysis must be based on best available information. For these projects, compliance with CEQA entails three basic steps: identify and quantify the GHG emissions; assess the significance of the impact on climate change; and if the impact is found to be significant, identify alternatives and/or mitigation measures that will reduce the impact below significance.

Lead agencies should determine whether greenhouse gases may be generated by a proposed project, and if so, quantify or estimate the GHG emissions by type and source. Second, the lead agency must assess whether those emissions are individually or cumulatively significant. When assessing whether a project's effects on climate change are "cumulatively considerable" even though its GHG contribution may be individually limited, the lead agency must consider the impact of the project when viewed in connection with the effects of past, current, and probable future projects. Finally, if the lead agency determines that the GHG emissions from the project as proposed are potentially significant, it must investigate and implement ways to avoid, reduce, or otherwise mitigate the impacts of those emissions. Although the scientific knowledge and understanding of how best to perform this analysis is rudimentary and still evolving, many useful resources are available (see Attachment 1).

Until such time as further state guidance is available on thresholds of significance, public agencies should consider the following general factors when analyzing whether a proposed project has the potential to cause a significant climate change impact on the environment.

Identify GHG Emissions

- Lead agencies should make a good-faith effort, based on available information, to calculate, model, or estimate the amount of CO_2 and other GHG emissions from a project, including the emissions associated with vehicular traffic, energy consumption, water usage and construction activities.
- Technical resources, including a variety of modeling tools, are available to assist public agencies to quantify GHG emissions. OPR recognizes that more sophisticated emissions models for particular types of projects are continually being developed and that the state-of-the-art quantification

models are rapidly changing. OPR will periodically update the examples of modeling tools identified in Attachment 2.

- There is no standard format for including the analysis in a CEQA document. A GHG/climate change analysis can be included in one or more of the typical sections of an EIR (e.g., air quality, transportation, energy) or may be provided in a separate section on cumulative impacts or climate change.

Determine Significance

- When assessing a project's GHG emissions, lead agencies must describe the existing environmental conditions or setting, without the project, which normally constitutes the baseline physical conditions for determining whether a project's impacts are significant.
- As with any environmental impact, lead agencies must determine what constitutes a significant impact. In the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a "significant impact", individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice.
- The potential effects of a project may be individually limited but cumulatively considerable. Lead agencies should not dismiss a proposed project's direct and/or indirect climate change impacts without careful consideration, supported by substantial evidence. Documentation of available information and analysis should be provided for any project that may significantly contribute new GHG emissions, either individually or cumulatively, directly or indirectly (e.g., transportation impacts).
- Although climate change is ultimately a cumulative impact, not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment. CEQA authorizes reliance on previously approved plans and mitigation programs that have adequately analyzed and mitigated GHG emissions to a less than significant level as a means to avoid or substantially reduce the cumulative impact of a project.

Mitigate Impacts

- Mitigation measures will vary with the type of project being contemplated, but may include alternative project designs or locations that conserve energy and water, measures that reduce vehicle miles traveled

(VMT) by fossil-fueled vehicles, measures that contribute to established regional or programmatic mitigation strategies, and measures that sequester carbon to offset the emissions from the project.

- The lead agency must impose all mitigation measures that are necessary to reduce GHG emissions to a less than significant level. CEQA does not require mitigation measures that are infeasible for specific legal, economic, technological, or other reasons. A lead agency is not responsible for wholly eliminating all GHG emissions from a project; the CEQA standard is to mitigate to a level that is "less than significant".
- If there are not sufficient mitigation measures that the lead agency determines are feasible to achieve the less than significant level, the lead agency should adopt those measures that are feasible, and adopt a Statement of Overriding Considerations that explains why further mitigation is not feasible. A Statement of Overriding Considerations must be prepared when the lead agency has determined to approve a project for which certain impacts are unavoidable. These statements should explain the reasons why the impacts cannot be adequately mitigated in sufficient detail, and must be based on specific facts, so as not to be conclusory.
- Agencies are encouraged to develop standard GHG emission reduction or mitigation measures that can be applied on a project-by-project basis. Attachment 3 contains a preliminary menu of measures that lead agencies may wish to consider. This list is by no means exhaustive or prescriptive. Lead agencies are encouraged to develop their own measures and/or propose project alternatives to reduce GHG emissions, either at a programmatic level or on a case-by-case review.
- In some cases GHG emission reduction measures will not be feasible or may not be effective at a project level. Rather, it may be more appropriate and more effective to develop and adopt program-level plans, policies and measures that will result in a reduction of GHG emissions on a regional level.

IV. ADDITIONAL LAND USE CONSIDERATIONS

CEQA can be a more effective tool for GHG emissions analysis and mitigation if it is supported and supplemented by sound development policies and practices that will reduce GHG emissions on a broad planning scale and that can provide the basis for a programmatic approach to project-specific CEQA analysis and mitigation.

Local governments with land use authority are beginning to establish policies that result in land use patterns and practices that will result in less energy use and reduce GHG emissions. For example, some cities and counties have adopted general plans and policies that encourage the development of compact, mixed-use, transit-oriented development that reduces VMT; encourage alternative fuel vehicle use; conserve energy and water usage; and promote carbon sequestration. Models of such developments exist throughout the state (see OPR climate change website for examples of city and county plans and policies, referenced in Attachment 1).

For local government lead agencies, adoption of general plan policies and certification of general plan EIRs that analyze broad jurisdiction-wide impacts of GHG emissions can be part of an effective strategy for addressing cumulative impacts and for streamlining later project-specific CEQA reviews.

International, national, and statewide organizations such as ICLEI (Local Governments for Sustainability), the Cities for Climate Protection, and the Clean Cities Coalition —to name just a few — have published guidebooks to help local governments reduce GHG emissions through land use planning techniques and improved municipal operations. Links to these resources are provided at the end of this advisory.

Regional agencies can also employ a variety of strategies to reduce GHG emissions through their planning processes. For example, regional transportation planning agencies adopt plans and programs that address congestion relief, jobs-to-housing balance, reduction of vehicle miles traveled (VMT), and other issues that have implications for GHG emission reductions.

State agencies are also tackling the issue of climate change. Some have adopted or support policies and programs that take climate change into account, including the Department of Water Resources' State Water Plan; the Department of Transportation's State Transportation Plan; and the Business, Housing and Transportation Agency's Regional Blueprint Planning Program. These efforts not only raise public awareness of climate change and how the State can reduce GHG emissions, but also offer specific information and resources for lead agencies to consider.

V. NEXT STEPS

OPR has asked ARB technical staff to recommend a method for setting a threshold of significance for GHG emissions. OPR has requested that the ARB identify a range of feasible options, including qualitative and quantitative options.

OPR is actively seeking input from the public and stakeholder groups, as it develops draft CEQA Guidelines for GHG emissions. OPR is engaged with the Resources Agency and other expert state agencies, local governments, builders and developers, environmental organizations, and others with expertise or an interest in the development of the Guidelines.

OPR will conduct public workshops later this year to receive input on the scope and content of the CEQA Guidelines amendments. It is OPR's intent to release a preliminary draft of the CEQA Guidelines amendments for public review and comment in the fall. This will enable OPR to deliver a proposed package of CEQA Guidelines amendments to the Resources Agency as early as January 2009, well before the statutory due date of July 1, 2009.

We encourage public agencies and the public to refer to the OPR website at www.opr.ca.gov for information about the CEQA Guidelines development process and to subscribe to OPR's notification system for announcements and updates.

For more information about this technical advisory and assistance in addressing the impacts of GHG emissions on the environment, please contact:

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Web Address: www.opr.ca.gov

ATTACHMENTS

1. References and Information Sources
2. Technical Resources/Modeling Tools to Estimate GHG Emissions
3. Examples of GHG Reduction Measures

Attachment 1

References and Information Sources

The following is a list of websites of organizations that can offer additional information regarding methods to characterize, quantify, assess and reduce GHG emissions. In addition, a list of useful resources and reference materials is provided on the subject of climate change and greenhouse gases.

ORGANIZATIONS

- Governor's Office of Planning and Research
  http://www.opr.ca.gov
- California Climate Action Team
  http://www.climatechange.ca.gov/climate_action_team/
- California Climate Change Portal
  http://www.climatechange.ca.gov
- California Air Resources Board Climate Change Website
  http://www.arb.ca.gov/cc/cc.htm
- California Climate Action Registry
  http://www.climateregistry.org/
- California Department of Water Resources, Climate Change and California Water Plan Website
  http://www.waterplan.water.ca.gov/climate/
- California Energy Commission Climate Change Proceedings
  http://www.energy.ca.gov/global_climate_change/index.html
- California Public Utilities Commission, Climate Change Website
  http://www.cpuc.ca.gov/static/energy/electric/climate+change/_index.htm
- Green California Website
  http://www.green.ca.gov/default.htm
- Western Climate Initiative
  http://www.westernclimateinitiative.org

- California Air Pollution Control Officers Association
  http://www.capcoa.org
- Local Governments for Sustainability (ICLEI)
  http://www.iclei.org/
- ICLEI Cities for Climate Protection (CCP)
  http://www.iclei.org/index.php?id=800
- United Nations Framework Convention on Climate Change
  http://unfccc.int/2860.php
- Intergovernmental Panel on Climate Change
  http://www.ipcc.ch
- United States Environmental Protection Agency
  http://www.epa.gov/climatechange/
- City of Seattle U.S. Mayors Climate Protection Agreement
  http://www.seattle.gov/mayor/climate/
- Mayors for Climate Protection
  http://www..coolmayors.com
- U.S. Conference of Mayors Climate Protection Web Page
  http://usmayors.org/climateprotection
- Institute for Local Government California Climate Action Network
  http://www.ca-ilg.org/climatechange

STATUTES, REGULATIONS, AND EXECUTIVE ORDERS

- SB 97
  http://opr.ca.gov/ceqa/pdfs/SB_97_bill_20070824_chaptered.pdf
- SB 97 Governor's Signing Message
  http://opr.ca.gov/ceqa/pdfs/SB-97-signing-message.pdf
- AB 32
  http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab_0001-0050/ab_32_bill_20060927_chaptered.pdf
- AB 1493
  http://www.leginfo.ca.gov/pub/01-02/bill/asm/ab_1451-1500/ab_1493_bill_20020722_chaptered.pdf

- Regulations implementing AB 1493
  http://www.arb.ca.gov/regact/grnhsgas/revfro.pdf and http://www.arb.ca.gov/regact/grnhsgas/revtp.pdf
- SB 1368
  http://www.leginfo.ca.gov/pub/05-06/bill/sen/sb_1351-1400/sb_1368_bill_20060929_chaptered.pdf
- Executive Order S-01-07 regarding low carbon standard for transportation fuels
  http://gov.ca.gov/index.php?/executive-order/5172/
- Executive Order S-20-06 regarding implementation of AB 32
  http://gov.ca.gov/index.php?/executive-order/4484/
- Executive Order S-3-05 regarding greenhouse gas goals
  http://gov.ca.gov/index.php?/executive-order/1861/
- Executive Order S-20-04 regarding energy conservation by state
  http://gov.ca.gov/index.php?/executive-order/3360/

REPORTS

- OPR List of Environmental Documents Addressing Climate Change
  http://opr.ca.gov/ceqa/pdfs/Environmental_Assessment_Climate_Change.pdf
- OPR List of Local Plans Addressing Climate Change
  http://opr.ca.gov/ceqa/pdfs/City_and_County_Plans_Addressing_Climate_Change.pdf
- *Climate Action Team Proposed Early Action Measures to Mitigate Climate Change in California*, April 2007
  http://www.climatechange.ca.gov/climate_action_team/reports/2007-04-20_CAT_REPORT.PDF
- California Air Resources Board, *Early Action Items to Mitigate Climate Change in California*, October 2007
  http://www.arb.ca.gov/cc/ccea/meetings/ea_final_report.pdf
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- *Climate Action Team Report to the Governor and Legislature*, March 2006, http://www.climatechange.ca.gov/climate_action_team/reports/index.html

- California Climate Change Center, *Our Changing Planet: Assessing the Risks to California - Summary Report*
  http://www.energy.ca.gov/2006publications/CEC-500-2006-077/CEC-500-2006-077.PDF
  Detailed reports available at: http://www.climatechange.ca.gov/biennial_reports/2006report/index.html
- California Energy Commission, *2007 Integrated Energy Policy Report Update*
  http://www.energy.ca.gov/2007publications/CEC-100-2007-008/CEC-100-2007-008-CMF.PDF
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  http://baydeltaoffice.water.ca.gov/climatechange/DWRClimateChangeJuly06.pdf - pagemode=bookmarks&page=1
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  http://www.dot.ca.gov/docs/ClimateReport.pdf
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  http://www.capcoa.org/ceqa/CAPCOA%20White%20Paper%20-%20CEQA%20and%20Climate%20Change.pdf
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  http://www.westernclimateinitiative.org/ewebeditpro/items/O104F13792.pdf
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  http://calclimate.berkeley.edu/managing_GHGs_in_CA.html
- U.S. Conference of Mayors, *Energy & Environment Best Practices*
  http://www.usmayors.org/climateprotection/AtlantaEESummitCDROMVersion.pdf
- *U.S. Mayors Climate Protection Agreement Climate Action Handbook*, 2006
  http://www.seattle.gov/climate/docs/ClimateActionHandbook.pdf
- Natural Capitalism Solutions *Climate Protection Manual for Cities*, June 2007
  http://www.climatemanual.org

- National Governor's Association Center for Best Practices *Growing with Less Greenhouse Gases*, November 2002
  http://www.nga.org/cda/files/112002ghg.pdf
- National Governor's Association Center for Best Practices *State and Regional Greenhouse Gas* Initiatives, October 2006
  http://www.nga.org/Files/pdf/0610GREENHOUSE.PDF
- United States Climate Change Program *The Effects of Climate Change on Agriculture, Land Resources, Water Resources, and Biodiversity in the United States*, May 2008
  http://www.usda.gov/oce/global_change/sap_2007_FinalReport.htm

Attachment 2

Technical Resources/Modeling Tools to Estimate GHG Emissions

TOOL	AVAILABILITY	SCOPE LOCAL/ REGIONAL	SCOPE TRANSPORTATION/ BUILDINGS	DATA INPUT REQUIREMENTS	DATA OUTPUT
URBEMIS	• Download • Public domain (free)	• Local project level	• Transportation • Some building (area source) outputs • Construction	• Land use information • Construction, area source, and transportation assumptions	• CO_2 (pounds per day) • Mitigation impacts
Clean Air and Climate Protection (CACP) Software	• Download • Available to public agencies (free)	• Local project level	• Buildings • Communities • Governments	• Energy usage • Waste generation and disposal • Transportation fuel usage or VMT	• CO_2e (tons per year)
Sustainable Communities Model (SCM)	• Custom model	• Regional • Scalable to site level	• Transportation • Buildings • Neighborhoods • Master planned communities	• Location and site specific information • Transportation assumptions • On-site energy usage	• CO_2e (tons per year)
Internet-accessed Planning for Community Energy, Economic and Environmental Sustainability I-PLACE^{3}S	• Web-based • Small access fee • Full model now available in eight CA counties	• Regional • Scalable to site level	• Transportation • Housing • Land Use • Buildings • Energy • Economics	• Parcel level land use data (ability to work with less data) • Project-level data for alternative comparisons	• CO_2 (any quantity over any time)
Climate Action Registry Reporting On-Line Tool (CARROT)	• Web-based • Available to Registry members • General public can view entity reports	• Regional, scalable to entity and facility level	• General Reporting and Certification Protocols o Transportation o Buildings/facilities • Specific protocols for some sectors	• Mobile source combustion (VMT or fuel usage) • Stationary combustion (fuel usage) • Indirect emissions (electricity usage)	• Each GHG and CO_2e (tons per year)
EMFAC	• Download • Public domain (free)	• Statewide • Regional (air basin level)	• Transportation emission factors	• Travel activity data to calculate CO_2 from projects.	• CO_2 and methane (grams per mile) emission factors

VMT = Vehicle miles traveled
eCO_2 = Carbon dioxide equivalent emissions
Note: This is not meant to be a definitive list of modeling tools to estimate climate change emissions impacts. Other tools may be available.

Description of Modeling Tools

URBEMIS

The Urban Emissions Model is used extensively during the CEQA process by local air districts and consultants to determine the impacts of projects on criteria pollutants. It was recently updated to calculate CO2 emissions as well. Future updates will include additional greenhouse gases. URBEMIS uses the ITE Trip Generation Rate Manual and the Air Resources Board's (ARB) motor vehicle emissions model (EMFAC) to calculate transportation-related CO2 emissions and ARB's OFFROAD2007 model for CO2 emissions from off-road equipment. Area source outputs include natural gas use, landscaping equipment, consumer products, architectural coatings, and fireplaces. It also estimates construction impacts and impacts of mitigation options. Web site: http://www.urbemis.com.

Clean Air and Climate Protection (CACP) Software

This tool is available to state and local governments and members of ICLEI, NACAA, NASEO and NARUC to determine greenhouse gas and criteria pollutant emissions from government operations and communities as a whole. The user must input aggregate information about energy (usage), waste (quantity and type generated, disposal method, and methane recovery rate) and transportation (VMT) for community analyses. CACP uses emission factors from EPA, DOE, and DOT to translate the energy, waste and transportation inputs into greenhouse gas (in carbon dioxide equivalents) and criteria air pollutant emissions. If associated energy, waste and transportation reduction are provided, the model can also calculate emission reductions and money saved from policy alternatives. Web site: http://cacpsoftware.org.

Sustainable Communities Model (SCM)

This model quantifies total CO2e emissions allowing communities the ability to optimize planning decisions that result in the greatest environmental benefit for the least cost. Total CO2e emissions are based on emissions from energy usage, water consumption and transportation. The model provides an interactive comparison of various scenarios to provide environmental performance, economic performance, and cost benefit analysis.

Web site: www.ctg-net.com/energetics/documents/doc_SCM_070731.pdf

I-PLACE^{3}S

This model is an internet-accessed land use and transportation model designed specifically for regional and local governments to help understand how their growth and development decisions can contribute to improved sustainability. It estimates CO2, criteria pollutant and energy impacts on a neighborhood or

regional level for existing, long-term baseline and alternative land use plans. The data input requirements are extensive and require a fiscal commitment from the Metropolitan Planning Organization and its member local governments. Once the data is available, the IPLACES tool can be developed for that region relatively quickly, in approximately one week. The benefits include a multifunctional tool that provides immediate outputs to compare alternatives during public meetings, multilevel password protected on-line access, as well as providing access for local development project CEQA analyses. This tool also supports regional travel models and integrated land use and transportation assessments. Web site: http://www.sacregionblueprint.org/sacregionblueprint/the_project/technology.cfm and http://www.places.energy.ca.gov/places

CARROT

The California Climate Action Registry offers the Climate Action Registry Reporting On-Line Tool (CARROT) for Registry members to calculate and report annual greenhouse gas (GHG) emissions. CARROT calculates direct and indirect GHG emissions for the following emission categories by source: stationary combustion, process emissions, mobile source combustion, fugitive emissions and electricity use by source. It calculates emissions using entity collected data such as fuel purchase records, VMT and utility bills. While reporting and certification through CARROT is only available to members, the public may access entity reports online. Reporting protocols are also available to the public, including the General Reporting Protocol (www.climateregistry.org/docs/PROTOCOLS/GRP%20V2-March2007_web.pdf) and cement, forestry and power/utility sector protocols. Additional sector protocols are under development. Website: www.climateregistry.org/CARROT/

EMFAC

The Air Resources Board's EMission FACtors (EMFAC) model is used to calculate emission rates from all motor vehicles in California. The emission factors are combined with data on vehicle activity (miles traveled and average speeds) to assess emission impacts. The URBEMIS model described above uses EMFAC to calculate the transportation emission impacts of local projects. Web site: http://www.arb.ca.gov/msei/onroad/onroad.htm

Attachment 3

Examples of GHG Reduction Measures

The following are examples of measures that have been employed by some public agencies to reduce greenhouse gas emissions, either as general development policies or on a project-by-project basis. These are provided for illustrative purposes only.

LAND USE AND TRANSPORTATION

- Implement land use strategies to encourage jobs/housing proximity, promote transit-oriented development, and encourage high density development along transit corridors. Encourage compact, mixed-use projects, forming urban villages designed to maximize affordable housing and encourage walking, bicycling and the use of public transit systems.
- Encourage infill, redevelopment, and higher density development, whether in incorporated or unincorporated settings
- Encourage new developments to integrate housing, civic and retail amenities (jobs, schools, parks, shopping opportunities) to help reduce VMT resulting from discretionary automobile trips.
- Apply advanced technology systems and management strategies to improve operational efficiency of transportation systems and movement of people, goods and services.
- Incorporate features into project design that would accommodate the supply of frequent, reliable and convenient public transit.
- Implement street improvements that are designed to relieve pressure on a region's most congested roadways and intersections.
- Limit idling time for commercial vehicles, including delivery and construction vehicles.

URBAN FORESTRY

- Plant trees and vegetation near structures to shade buildings and reduce energy requirements for heating/cooling.
- Preserve or replace onsite trees (that are removed due to development) as a means of providing carbon storage.

GREEN BUILDINGS

- Encourage public and private construction of LEED (Leadership in Energy and Environmental Design) certified (or equivalent) buildings.

ENERGY CONSERVATION POLICIES AND ACTIONS

- Recognize and promote energy saving measures beyond Title 24 requirements for residential and commercial projects
- Where feasible, include in new buildings facilities to support the use of low/zero carbon fueled vehicles, such as the charging of electric vehicles from green electricity sources.
- Educate the public, schools, other jurisdictions, professional associations, business and industry about reducing GHG emissions.
- Replace traffic lights, street lights, and other electrical uses to energy efficient bulbs and appliances.
- Purchase Energy Star equipment and appliances for public agency use.
- Incorporate on-site renewable energy production, including installation of photovoltaic cells or other solar options.
- Execute an Energy Savings Performance Contract with a private entity to retrofit public buildings. This type of contract allows the private entity to fund all energy improvements in exchange for a share of the energy savings over a period of time.
- Design, build, and operate schools that meet the Collaborative for High Performance Schools (CHPS) best practices.
- Retrofit municipal water and wastewater systems with energy efficient motors, pumps and other equipment, and recover wastewater treatment methane for energy production.
- Convert landfill gas into energy sources for use in fueling vehicles, operating equipment, and heating buildings.
- Purchase government vehicles and buses that use alternatives fuels or technology, such as electric hybrids, biodiesel, and ethanol. Where feasible, require fleet vehicles to be low emission vehicles. Promote the use of these vehicles in the general community.
- Offer government incentives to private businesses for developing buildings with energy and water efficient features and recycled materials. The incentives can include expedited plan checks and reduced permit fees.
- Offer rebates and low-interest loans to residents that make energy-saving improvements on their homes.

- Create bicycle lanes and walking paths directed to the location of schools, parks and other destination points.

PROGRAMS TO REDUCE VEHICLE MILES TRAVELED

- Offer government employees financial incentives to carpool, use public transportation, or use other modes of travel for daily commutes.
- Encourage large businesses to develop commute trip reduction plans that encourage employees who commute alone to consider alternative transportation modes.
- Develop shuttle systems around business district parking garages to reduce congestion and create shorter commutes.
- Create an online ridesharing program that matches potential carpoolers immediately through email.
- Develop a Safe Routes to School program that allows and promotes bicycling and walking to school.

PROGRAMS TO REDUCE SOLID WASTE

- Create incentives to increase recycling and reduce generation of solid waste by residential users.
- Implement a Construction and Demolition Waste Recycling Ordinance to reduce the solid waste created by new development.
- Add residential/commercial food waste collection to existing greenwaste collection programs.

LAMP-AL00008

Los Angeles Department of Water & Power

ERIC GARCETTI
Mayor

Commission
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WILLIAM W. FUNDERBURK JR., Vice President
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MICHAEL F. FLEMING
CHRISTINA E. NOONAN
BARBARA E. MOSCHOS, Secretary

DAVID H. WRIGHT
General Manager

November 15, 2016

Mr. Christopher Koontz
Los Angeles World Airports
1 World Way, Room 218
Los Angeles, CA 90045

Dear Mr. Koontz,

Subject: Comments from the Los Angeles Department of Water and Power on the Los Angeles International Airport Landslide Access Modernization Program Draft Environmental Impact Report

The Los Angeles Department of Water and Power (LADWP) appreciates the opportunity to review and provide comments on the Draft Environmental Impact Report (DEIR) for the Los Angeles International Airport (LAX) Landside Access Modernization Program (LAMP). LADWP maintains a number of critical water facilities within the limits of the proposed LAMP Project. As acknowledged in the DEIR, the LAMP Project will have impacts to existing water distribution lines and will require continued coordination between Los Angeles World Airports (LAWA) and LADWP regarding the relocation and installation of these water facilities in order to provide adequate water supply to the LAMP Project and comply with the City of Los Angeles' water sustainability goals. However, in reviewing the LAWA LAMP proposed project description, LADWP notes the omission of the planned replacement of the existing 36-inch trunk line on Century Boulevard. This trunk line is a critical part of the LADWP Water System that provides reliable water supply to LAX.

Due to its age and history, the Century Boulevard Trunk Line Project has been added to LADWP's 10-year Capital Improvement Program. The Century Blvd Trunk Line Project consists of replacing approximately three miles of the existing 36-inch diameter welded steel trunk line on Century Boulevard between Sepulveda Boulevard and Prairie Avenue. The most critical portion is approximately 5,600 feet located between Sepulveda Boulevard and Aviation Boulevard, which has a history of leaks and repairs. The new water line will be 48 inches in diameter and will increase operational flexibility to serve the LAX area. Depending on the final route, the total project length could be up to 3.5 miles, of which approximately 1.5 miles would be in the City of Inglewood.

Putting Our Customers First

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Telephone (213) 367-4211 www.LADWP.com

LAMP-AL00009

Coordination between LADWP and the LAX LAMP Project Teams is critical to determine the most appropriate alignment that minimizes impacts to the area. LADWP requests that a separate monthly coordination meeting be established between both parties to ensure the success of both projects.

LADWP respectfully requests that the Century Boulevard Trunk Line Project be included in the environmental review of the LAX LAMP Project. For questions or concerns specific to the Century Boulevard Trunk Line Project and proposed coordination meetings, please contact Ms. Annette Flores from our Water Engineering & Technical Services Division at (213) 367-0827 or at Annette.Flores@ladwp.com. For matters regarding the CEQA approach, please contact Mr. Christopher Lopez of my staff at (213) 367-3509 or at Christopher.Lopez@ladwp.com.

Thank you again, for this opportunity to review and comment on the Draft Environmental Impact Report for the LAX Landside Access Modernization Program.

Sincerely,

Nadia A Parlin for

Charles C. Holloway
Manager of Environmental Planning and Assessment

CL:rc
c: Mr. Christopher Lopez

LAMP-AL00009

From: latwell@cityofinglewood.org
To: LAX Stakeholder Liaison
Subject: Stakeholder Comment Submitted - Ref. No. 161115180217
Date: Tuesday, November 15, 2016 6:02:29 PM

This is to inform you that a comment form was submitted.

Reference No.:	161115180217
Date Submitted:	11/15/2016
From:	Louis A Atwell
Email:	latwell@cityofinglewood.org
Company Name:	City of Inglewood,
Address:	One West Manchester Boulevard
City:	Inglewood
State:	CA
Zip Code:	90301
Project Name:	LAMP DEIR
Other Comments:	The City of Inglewood appreciates working with LAWA during the EIR process. However, the Project has significant traffic impacts in the City of Inglewood. The Project significantly increases traffic on Century Boulevard, Manchester Boulevard, Arbor Vitae Street, Imperial Highway, Crenshaw Boulevard, Prairie Avenue and La Brea Avenue. The City is concerned that the proposed Transportation Demand Management program is unclear on how it will be measured and implemented and how will it address traffic impacts directly affecting the City of Inglewood. The City of Inglewood also has concerns about the phasing of roadway construction. It is anticipated that because of the Projects very tight schedule, most arterial roadways slated to be improved will occur almost simultaneously. The City would like clearer detail on the Construction Management Plan and associated mitigation measures. The City believes that the identified traffic mitigation measures in the City of Inglewood should be implemented prior to commencement of construction of the Project. The City looks forward to working with LAWA in addressing these concerns.

IP Address: 69.75.102.250

LAMP-AL00010

MIKE BONIN

City of Los Angeles
Councilmember, Eleventh District

NOV 15 4:45PM

November 15, 2016

Ms. Evelyn Quintanilla
Chief of Airport Planning
Los Angeles World Airports
P.O. Box 92216, Los Angeles, CA 90009

Dear Ms. Quintanilla,

Thank you for the opportunity to comment on the Draft Environmental Impact Report (Draft EIR) for Los Angeles World Airport's (LAWA's) Landside Access Modernization Program (LAMP) at Los Angeles International Airport (LAX).

As a member of the Board of Directors for the Los Angeles County Metropolitan Transportation Authority (Metro) and the Councilmember representing the Eleventh District in the City of Los Angeles, I am very proud of the work that LAWA has completed to date to release the Draft EIR for the LAMP project. This is a major milestone for the City of Los Angeles as it gets us one step closer to delivering a nearly $5.5 billion modernization program focused on improving access to and from the airport, connecting the regional Metro Rail system to LAX, reducing traffic congestion, and enhancing the overall passenger experience.

This is a transformational project for the City of Los Angeles and the region as a whole. Therefore, a detailed analysis of how LAMP may affect the region and the surrounding community along with a robust plan for mitigation of any potential impacts are important components of the Draft EIR. I understand that several key stakeholders and community groups have provided comments on the Draft EIR, and I am confident LAWA will address those comments thoroughly in the Final EIR for the project. As LAWA moves forward with the Final EIR, I would like to bring to your attention a few additional items that are critical to the project's success including the following:

1. Transportation Demand Management
   LAWA's proposed mitigation measure MM-ST (LAMP)-6, Transportation Demand Management (TDM) Program, for LAX employees and the hotel / office employees working in the adjacent Gateway to Los Angeles Business Improvement District (BID), is a critical element for the success of LAMP. Together, these employees represent a large share of the daily traffic traveling into and around the airport. By implementing the TDM Program and providing these employees alternative modes of transportation to access their workplace, LAWA can significantly reduce daily automobile trips into the airport area and improve traffic flow. As a member of the Metro Board of Directors, it is my goal to encourage alternative modes of transportation to LAX. Therefore, I encourage LAWA to begin taking the steps necessary to implement this mitigation measure *now*, rather than waiting to begin implementation of such a critical measure until the start of construction for the LAMP program.

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2. Construction Traffic Project Task Force
   LAWA's proposed mitigation measure MM-ST (LAMP)-1, Construction Traffic Project Task Force, is similarly critical. The establishment of a task force to focus on construction traffic related impacts is necessary to ensure that we maintain a world class passenger experience during construction and that we effectively coordinate all construction traffic impacts / mitigations directly with our key local stakeholders including, but not limited to, the Westchester Town Center BID and the Gateway to Los Angeles BID. A large amount of construction will occur on public roadways outside of the airport and we therefore must ensure traffic managements plans, including street closures and detour routes, are coordinated with the commercial districts adjacent to LAX. I applaud LAWA's commitment to establish this Task Force and strongly support this work effort moving forward.

3. Integrated Urban Environment with Functional and Attractive Design
   Another key element to the overall success of the project is ensuring that LAMP is compatible with and enhances the character of the surrounding community. In order to achieve compatibility, it is important to ensure that the design and construction of the various off-airport LAMP project components provide an integrated urban environment with functional and attractive architecture, as well as safe and convenient pedestrian and bicycle connections that create a sense of place along Century Boulevard and the surrounding street network. A majority of the LAMP project components are located off-airport throughout the adjacent hotel and office business district. This area is considered by many to be the Gateway to Los Angeles, as it is the first or last impression of the City for millions of visitors traveling through LAX. For this reason, we must ensure the various LAMP facilities adhere to the project's design guidelines and meet a world class level of architecture and design. In addition, various LAMP project components will be located within walking and biking distance to transit and many hotel, office and commercial amenities. We must ensure there are safe and convenient pedestrian and bicycle connections to each of these facilities, including the Metro Crenshaw / LAX Line's Aviation / Century transit station.

4. Sustainable Design, Construction, and Operations
   The LAMP project must set the bar for sustainable development. Therefore, the project must require implementation of the highest standards for sustainability in design, construction, and operations for each of the LAMP project components including, but not limited to, energy and water conservation measures such as solar energy capture, electric vehicle chargers, and LEED certification.

Lastly, as LAWA continues to move forward with the detailed design of the Automated People Mover system and its integration with the Airport Metro Connector 96th Street Transit Station, we must ensure there is a seamless connection between the two facilities that reduces walking distances and improves the travel experience for all passengers. I commend both LAWA's and Metro's collaborative efforts to date to achieve this and look forward to further collaboration as both agencies proceed with detailed designs.

Thank you again for the opportunity to comment on the Draft EIR. This project is vital to building not only a world-class airport with unmatched passenger conveniences, but also a first-class neighbor to the surrounding communities. Should you have any questions regarding this letter, please contact my LAX Community Liaison, Omar Pulido, at (323) 740-0494 or at omar.pulido@lacity.org.

Regards,

MIKE BONIN
Councilmember, 11th District

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December 2, 2016

Via E-Mail

Evelyn Quintanilla
Chief of Airport Planning
Los Angeles World Airports
P.O. Box 92216
Los Angeles, CA 90009-2216
E-Mail: equintanilla@lawa.org

Re: MRO Engineers' Report re Landside Access Modernization Program
Draft Environmental Impact Report

Dear Ms. Quintanilla:

On behalf of the City of El Segundo, we submit the following report prepared by Neal Liddicoat with MRO Engineers. Mr. Liddicoat, a traffic engineer, has reviewed the Draft Environmental Impact Report's ("DEIR") transportation/traffic analysis for the Landside Access Modernization Program. The MRO Engineers' report identifies potentially significant deficiencies in the DEIR's transportation/traffic analysis that LAWA should carefully evaluate as part of an informative and comprehensive EIR.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP

Laurel L. Impett, AICP, Urban Planner

Encl: MRO Engineers Report, December 1, 2016

847509.3

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95603
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December 1, 2016

Ms. Laurel L. Impett, AICP
Shute, Mihaly & Weinberger LLP
396 Hayes Street
San Francisco, California 94102

Subject: ***Review of Transportation/Traffic Analysis***
Draft Environmental Impact Report
Los Angeles International Airport (LAX) Landside Access Modernization Program
Los Angeles, California

Dear Ms. Impett:

As requested, MRO Engineers, Inc., (MRO) has reviewed the "Transportation/Traffic" section of the Draft Environmental Impact Report (DEIR) for the Los Angeles International Airport (LAX) Landside Access Modernization Program (Los Angeles World Airports, September 2016). The "Transportation/Traffic" section of the DEIR is based on a traffic impact analysis prepared by Raju Associates (Raju). (Reference: Raju Associates, Inc., *Draft Transportation Study for the Landside Access Modernization Program DEIR*, September, 2016.) The Raju traffic study is presented as Appendix O to the DEIR.

Our review focused on the technical adequacy of the Transportation/Traffic analysis, including the detailed procedures and conclusions documented in the Raju study.

Transportation/Traffic Analysis Review

Our review of the DEIR Transportation/Traffic analysis revealed potentially significant deficiencies that should be addressed prior to approval of the project and its related environmental documentation by the City of Los Angeles. These issues are summarized below.

1. ***Traffic Volume Data Does Not Accurately Represent LAX Activity*** – Traffic volume data for the 183 study intersections was collected at various times between 2013 and 2015. The traffic count summary sheets for 179 of the study intersections are presented in DEIR Appendix O. The years in which those traffic counts were conducted are summarized below:

   - 2016 – 3 locations,
   - 2015 – 130 locations,
   - 2014 – 40 locations, and
   - 2013 – 6 locations.

   DEIR p. 4.12-59 presents slightly different information regarding when the counts used in the study were performed:

   - 2016 – 0 locations,
   - 2015 – 133 locations,

- 2014 – 44 locations, and
- 2013 – 6 locations.

Of greater interest are the months in which the data were collected, according to the data sheets in Appendix O:

- January – 3 locations,
- February – 3 locations,
- March – 76 locations,
- April – 38 locations,
- May – 4 locations,
- June – 0 locations,
- July – 23 locations,
- August – 0 locations,
- September – 13 locations,
- October – 13 locations,
- November – 0 locations,
- December – 6 locations,

DEIR p. 4.12-11 provides information regarding monthly traffic activity in the LAX Central Terminal Area (CTA) for the years 2006 through 2014. As described there:

> *. . . CTA traffic reached peak activity during the summer months of June, July and August. August is typically the peak month for Airport roadway traffic followed closely by July. For the purposes of this analysis, August 2014 was used as the peak month for traffic data, because the field data was collected in August. Although July had slightly more passengers in 2014, the analysis was based on a peak month average day in August.*

This quote specifically applies to the analysis of on-airport traffic conditions, but it also relates to the off-airport traffic analysis, since the two systems are inextricably linked; all vehicles traveling to or from the on-airport road system must also use the off-airport road system. For that reason, it is instructive to compare the intersection data collection schedule to the level of traffic activity at LAX. Table 1 presents that comparison, with the CTA average daily traffic volumes ranked from highest month to lowest month.

Table 1
CTA Traffic Volume Data vs. Data Collection Schedule

CTA Traffic Volume Data[1]			Intersection Counts[2]		
Month	Average Daily Traffic[3]	Monthly Ranking	Monthly Ranking	No.	%
August	77,311	1	10	0	0.0%
July	76,476	2	3	23	12.8%
June	75,635	3	10	0	0.0%
December	72,647	4	6	6	3.4%
May	71,404	5	7	4	2.2%
April	69,091	6	2	38	21.2%
November	69,064	7	10	0	0.0%
March	67,996	8	1	76	42.5%
September	67,838	9	4	13	7.3%
October	67,418	10	4	13	7.3%
January	65,673	11	8	3	1.7%
February	63,553	12	8	3	1.7%

Notes:
[1] Source: DEIR Table 4.12.1-2: CTA Average Daily Traffic Volumes, p. 4.12-11.
[2] Source: DEIR Appendix O.
[3] Overall average of all data points in DEIR Table 4.12.1-2 is 70,358 vehicles per day.

While August has historically had the highest average daily traffic volumes in the CTA, none of the intersection traffic counts used in the DEIR Transportation/Traffic analysis were performed in that month. This is also true for June, which is the third busiest month in the CTA. In July, the second busiest month, 23 (12.8 percent) of the 179 counts were performed.

The largest number of intersection traffic counts (76 counts, representing 42.5 percent of the counts) were conducted in March, which is the eighth busiest month in the CTA. Thirty-eight counts (21.2 percent) were performed in April, which is the sixth busiest month in the CTA. The average daily traffic volumes in those two months are 88 – 90 percent of the August volumes. In addition, they are somewhat below the overall average value of 70,358 vehicles per day, based on all of the data points (from 2006 through 2014) in DEIR Table 4.12.1-2.

Clearly, the "existing conditions" intersection traffic volumes employed in the DEIR analysis are not representative of the level of activity at LAX. Over 60 percent of the counts were performed in the bottom half of the ranking of monthly traffic volumes in the CTA. Only about 13 percent of the counts were conducted in the busiest three months.

In short, the existing traffic volumes are too low to accurately reflect traffic operations in the study area. As a result, the existing conditions level of service findings provide an overly optimistic view of the average vehicular delay and the current level of congestion in the study area. This deficiency will carry through to all subsequent analysis scenarios, so that intersection delays and project-related impacts will be understated.

2. ***Inadequate Midday Study Area*** – As noted above, the study area includes 183 intersections, all of which were included in the AM and PM peak hour analyses. According to DEIR p. 4.12-48:

> *. . . 36 of these intersections (immediately adjacent to or in the vicinity of the Project site) have been selected for a midday off-peak hour traffic impact evaluation.*

However, describing this as an "off-peak hour" analysis might be a misnomer. DEIR Figure 4.12.1-4 illustrates the pattern of arriving and departing passenger volumes over the course of an entire day. The arrival and departure patterns of airline passengers are closely linked to the traffic patterns of LAX as a whole.

According to DEIR p. 4.12-60, the midday traffic counts were generally conducted between 11:00 AM and 2:00 PM. Referring to DEIR Figure 4.12.1-4, a distinct peak in passenger arrival and departure activity is shown at about 11:00 AM. In fact, that peak is clearly higher than the total passenger activity shown in the AM (7:00 - 9:00 AM) and PM (4:00 - 6:00 PM) peak periods, for which all 183 intersections were analyzed.

In short, the midday traffic analysis is not inconsequential, given the LAX activity patterns demonstrated in the DEIR Transportation/Traffic section. This is clearly illustrated in DEIR Table 4.12.2-4, which summarizes the existing trip generation at LAX, as follows:

- AM Peak hour: 12,338 vehicle-trips,
- Midday peak hour: 16,097 vehicle-trips, and
- PM peak hour: 12,840 vehicle-trips.

As shown, the volume of traffic generated at LAX in the midday peak hour is 25 – 30 percent higher than either the AM or PM peak hours.

Therefore, it is inappropriate to limit the midday traffic analysis to the 36 arbitrarily selected locations addressed in the DEIR. In fact, given the factors presented above (i.e., non-representative existing conditions data and the fact that LAX traffic generation is highest in the midday period), we believe that a truly conservative analysis would include all 183 intersections in the midday analysis.

At a minimum, review of DEIR Figure 4.12.2-1 – Traffic Study Intersections (DEIR p. 4.12-55) and the existing conditions level of service (LOS) results presented in DEIR Table 4.12.2-6 (DEIR pp. 4.12-63 – 4.12-71) reveals a number of additional midday analysis candidate locations, each of which is also "adjacent to or in the vicinity of the Project site." Furthermore, each operates at LOS D or worse in either or both of the AM and PM peak hours, which is a reasonable indicator that it might operate poorly in the midday peak hour, as well. The additional midday study intersections are as follows:

- Intersection 21: Lincoln Boulevard/83rd Street (LOS F – AM)
- Intersection 69: Sepulveda Boulevard/Grand Avenue (LOS D – AM & PM)
- Intersection 70: Sepulveda Boulevard/El Segundo Boulevard (LOS D – AM & LOS E – PM)
- Intersection 71: Sepulveda Boulevard/Rosecrans Avenue (LOS E – AM & LOS F – PM)
- Intersection 88: Douglas Street/El Segundo Boulevard (LOS D – PM)

- Intersection 98: Aviation Boulevard/West 120th Street (LOS D – AM)
- Intersection 99: Aviation Boulevard/El Segundo Boulevard (LOS D – AM & LOS E – PM)
- Intersection 100: Aviation Boulevard/Rosecrans Boulevard (LOS E – AM & PM)
- Intersection 126: La Cienega Boulevard/West 120th Street (LOS D – PM)
- Intersection 127: La Cienega Boulevard/El Segundo Boulevard (LOS D – PM)
- Intersection 131: I-405 Northbound Ramps/Imperial Highway (LOS D – PM)
- Intersection 136: Inglewood Avenue/Century Boulevard (LOS D – PM)
- Intersection 137: Inglewood Avenue/Lennox Boulevard (LOS D – AM & LOS E – PM)
- Intersection 138: Inglewood Avenue/Imperial Highway (LOS E – AM & LOS F – PM)

To fully reflect the traffic patterns at LAX and to provide a comprehensive evaluation of the potential impacts of the proposed project, the midday traffic impact analysis must be revised to include these additional study intersections. The revised analysis should then be incorporated into a revised DEIR, which must be circulated for additional public review.

3. ***Obsolete Level of Service Calculation Procedures*** – DEIR p. 4.12-57 states:

> *For the City of Los Angeles study locations, including those shared with other jurisdictions, the* Critical Movement Analysis-Planning[1] *(CMA) method of intersection capacity analysis was used to determine the intersection volume-to-capacity (V/C) ratio and corresponding level of service at the signalized study intersections.*

The footnote in the quote presented above clarifies that the intersection level of service calculations were performed using the Transportation Research Board "Circular 212" method. This methodology was published in a document entitled, *Interim Materials on Highway Capacity* (Transportation Research Board, Transportation Research Circular Number 212, January 1980). As referenced, the document was published in 1980, almost 27 years ago.

The purpose of "Circular 212" was to provide a set of procedures to supplement the 1965 version of the *Highway Capacity Manual* until such time as a fully-updated manual could be published. Such an updated manual was distributed to the traffic engineering profession in 1985. Since that time, additional updated manuals have been published in 1994, 1997, 2000, and the year 2010. Each of these revised versions of the *Highway Capacity Manual* has advanced the technical procedures associated with the analysis of transportation facilities, including intersections, roadway segments, and freeway facilities.

The introduction to the 1980 Circular 212 document addresses the anticipated life span of the procedures documented there, including the following statements:

- "The choice of a Transportation Research Circular as the publication medium has been quite deliberate. By definition, Circulars contain information of immediate interest but not necessarily of long-lasting value."
- ". . . the methods presented here can be put to use until such time as a revised Manual becomes available." [As noted above, that occurred in 1985, followed by subsequent revisions in 1994, 1997, 2000, and 2010.]

- "This report comprises the first set of interim materials which will be distributed prior to the publication of a new "Highway Capacity Manual" in the mid-1980s. These interim materials are intended for application by HCM users in the 1980-1982 period."

It is clear from these statements that the "interim" procedures documented in Circular 212 have long ago outlived their usefulness and have been superseded. Thus, their use in this analysis is inappropriate. To ensure the accuracy of the traffic analysis, the intersection level of service calculations must be performed using the current, year 2010 version of the *Highway Capacity Manual*. (Reference: Transportation Research Board, *Highway Capacity Manual*, Fifth Edition, December 2010.)

In that regard, we note that the analyses of stop-sign-controlled intersections were performed using the 2010 *Highway Capacity Manual* procedures, as were the analyses of facilities under the jurisdiction of Caltrans.

4. ***Inconsistent On-Airport and Off-Airport Traffic Analyses*** – The DEIR presents separate analyses of the on-airport and off-airport transportation systems. It is not clear, however, that those two analyses are consistent with each other, which leads to questions regarding the validity of the results of those analyses. Particular areas of concern are delineated below.

Analysis Day

For the on-airport analysis:

> *Friday was selected as the design day as it is typically the busiest overall day of the week for the Airport roadway system.* (DEIR p. 4.12-3)

Although the off-airport analysis text does not explicitly say so, that analysis was based on conditions during the mid-week period (Tuesday through Thursday), which represents the usual method for conducting traffic impact analyses. Evaluation of traffic operations outside the Tuesday through Thursday period is generally not undertaken, because those circumstances might be atypical. The classic example used to illustrate this point relates to the fact that "Black Friday" conditions are not considered in analyzing the traffic impacts of a regional shopping center.

This case is different, though, as Friday happens every week, not just once a year. Also, because LAX is the dominant generator of traffic in the study area, it deserves special consideration. As noted in DEIR Table 4.12.1-2 (DEIR p. 4.12-11), LAX generated average daily traffic of 75,690 vehicles per day in the year 2014. Further, DEIR Table 4.12.2-4 (DEIR p. 4.12-61) shows that it generated over 12,300 AM peak hour trips, almost 16,100 midday peak hour trips, and 12,840 PM peak hour trips. It is unlikely that any other nearby land use generates such substantial traffic volumes.

Limiting the traffic impact analysis to the Tuesday through Thursday period is a guideline and not a requirement. Flexibility is accorded the lead agency in choosing the analysis periods. For consistency between the on-airport and off-airport traffic analyses, as well as to ensure a thorough analysis of potential traffic impacts, the analysis must address Friday "design day" conditions, as defined in the on-airport analysis.

Analysis Hours

The on-airport traffic analysis addressed the following peak hours (DEIR p. 4.12-18):

- Peak arrivals: 8:18 – 9:18 PM, and
- Peak departures: 6:16 – 7:16 AM.

The "peak arrivals" hour also represents the peak overall hour (i.e., arrivals and departures combined).

The off-airport analysis addressed the following time periods:

- AM peak hour: Highest hour between 7:00 and 10:00 AM,
- Midday peak hour (reduced study area): Highest hour between 11:00 AM and 2:00 PM, and
- PM peak hour: Highest hour between 3:00 and 6:00 PM.

The fact that the off-airport analysis addresses off-peak hours at LAX raises the distinct possibility that not all of the potentially significant impacts will be identified.

Travel Demand Forecasting Models

The on-airport traffic analysis for future year conditions was based, in part, on:

> *A vehicle trip generation and distribution model [that] was developed to estimate future traffic volumes on the Airport's roadway system based on future passenger activities.* (DEIR p. 4.12-3)

The off-airport traffic analysis apparently based its future year projections on a different travel demand forecasting model, as described below:

> *Utilizing TransCAD Version 7.0 modeling software, a detailed and updated travel demand forecasting model (updated City of Los Angeles Travel Demand Model) was developed for the Study Area using the Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP) 2012 Transportation Model (the most current regional model available at the time this Draft EIR was being prepared) and the calibrated and validated City of Los Angeles' Travel Demand Model as the base.* (DEIR p. 4.12-59)

No evidence is provided to indicate that any coordination occurred between the developers of the two models. Of particular interest is the question of what happens where the on-airport and off-airport study areas meet. Do the peak-hour traffic projections for the years 2024 and 2035 match? If not, why not? This information is needed to ensure that the traffic forecasts employed in both analyses are credible.

Summary

The lack of consistency between the on-airport and off-airport traffic analyses raises questions regarding the validity and credibility of the analyses, particularly with regard to the off-airport evaluation. The on-airport study is generally focused on historical design hours and days at LAX, based on extensive data collection at that facility. On the other hand, the off-airport analysis focuses on analysis procedures that, while considered "standard" in the traffic

engineering profession, do not necessarily fully address traffic operations at LAX. As demonstrated above, the approach employed in the off-airport analysis reflects levels of activity that fall far short of "peak" conditions (despite being labeled "peak hours") and, as a result, significant traffic impacts might be missed.

5. ***Inadequate Transit Analysis*** – The difficulties faced by individuals who desire to use public transit to access LAX are described at DEIR p. 1-2:

> *Moreover, LAX also lacks a direct connection to the Los Angeles County Metropolitan Transportation Authority (Metro) transit system. Currently, passengers and employees who want to take public transportation to LAX must either take a bus (often requiring a transfer from the LAX City Bus Center on W. 96th Street to the LAWA operated Lot C shuttle to reach the CTA), or take the Metro Green Line light rail to the station at Imperial Highway and Aviation Boulevard. They must then transfer to the LAWA-operated G shuttle to the Airport, which is a trip of approximately 2 miles.*

These constraints might lead one to believe that consideration of transit impacts and potential improvements to the transit system serving LAX would be important. The extremely limited, one-paragraph "analysis" of the proposed project's impacts on the regional transit system suggests otherwise. (DEIR p. 4.12-153) The analysis presented there states, in part:

> *Given that the Project consists of roadway and transportation improvements and construction of facilities that would facilitate movement of passengers at LAX . . ., the Project would not generate any additional new trips. . . . The proposed Project would improve connections to the regional transit system, which may encourage passengers and employees to utilize transit rather than other modes of traffic. Therefore, impacts to transit would be less than significant.*

First, we note the absolute lack of any analysis that might serve as a credible basis for a finding of a "less than significant" impact. We also find it ironic that the claim that the proposed Project "may encourage passengers and employees to utilize transit" is apparently used as the basis for determining that the transit impact will be less than significant.

The threshold of significance for transit is presented at DEIR p. 4.12-95:

> *. . . a significant impact is considered to occur if implementation of the proposed Project would result in a substantial increase in transit demand compared to the capacity of transit lines serving the project area.*

No information is provided with respect to current or project-related transit demand. Further, no data are presented to demonstrate whether adequate capacity exists (or will exist in the future) on the various transit lines that serve LAX. (Of course, this relieves the burden of having to determine what constitutes a "substantial" increase in transit demand.)

Finally, we note that Mitigation Measure "MM-ST (LAMP)-6. Transportation Demand Management (TDM) Program" (DEIR p. 4.12-179) specifically includes provision of transit passes to LAX employees. This feature of the TDM program can be expected to increase transit ridership, potentially impacting the transit lines serving LAX.

Under the circumstances, the absence of a meaningful analysis of existing and future transit capacity and the effect of the proposed project on that available capacity (if any) is a substantial deficiency in the DEIR. Further detail must be provided and incorporated into a revised DEIR.

6. ***Deficient Construction Traffic Analysis*** – The construction traffic analysis study area is substantially reduced from that addressed in the other traffic analyses. According to DEIR p. 4.12-194:

> *The construction traffic study area for this analysis includes those roads and intersections that would most likely be used by employee and truck traffic associated with construction of the proposed Project.*

In reality, though, the study area, as illustrated at DEIR Figure 4.12.3-1 (DEIR p. 4.12-195), barely extends beyond the boundaries of LAX. The apparent suggestion is that none of the construction traffic will travel east of La Cienega Boulevard, south of Imperial Highway or Interstate 105, or north of Westchester Parkway.

The analysis time periods are presented at DEIR p. 4.12-209. The AM peak hour is defined as 7:00 - 8:00 AM, while the PM peak hour is described as 4:00 - 5:00 PM. For both peak-hour periods:

> *The construction traffic analysis assumed that no employee trips would be on the roadways at this time. . . . This approach provides a conservative impact analysis by addressing situations when complete avoidance of the morning [or evening] commuter peak period is not possible.*

It is not at all clear how ignoring the traffic associated with 966 construction employees constitutes a "conservative" analysis. (DEIR, p. 4.12-213) In fact, referring to DEIR Table 4.12.3-4 (DEIR p. 4.12-215), we see that the assumed analysis hours just miss having to assess the impacts of over 520 employee-generated trips. For clarity, we have replicated a portion of that table below, as Table 2.

In the morning, the DEIR indicates that 523 employee vehicles will arrive between 6:00 and 7:00 AM, along with a total of 162 truck trips, for a total traffic volume of 685 trips. But the analysis addresses the following hour (7:00 – 8:00 AM), when no employees are assumed to arrive and the total traffic volume is only 162 trips, about one-quarter as many as between 6:00 and 7:00 AM. It is also interesting to note that, although they are specifically listed on the table, no "employee shuttle" trips are assumed.

In the evening, the analysis addressed the hour between 4:00 and 5:00 PM (i.e., 16:00 – 17:00) when only truck traffic is assumed to occur (162 trips). If the previous hour had been considered, the traffic total would be 685 trips, including 523 departing employees and 162 truck trips (81 in and 81 out). Again, no employee shuttle trips are shown in any hour.

The employee trip values in Table 2 are based largely on a number of assumptions regarding how construction workers will be scheduled. Given the uncertainties inherent in developing such assumptions, we believe that a truly conservative analysis would only result from evaluation of the adjacent hours, which have higher estimated construction employee traffic volumes.

Further, we note that the same deficiencies described here also afflict the construction traffic analysis for cumulative conditions, which is documented at DEIR pp. 4.12-219 – 4.12-229.

Table 2
Proposed Project-Related Construction Traffic PCEs[1,2]

Hour	Employee Trips In	Employee Trips Out	Truck Trips In	Truck Trips Out	Employee Shuttle Trips In	Employee Shuttle Trips Out	Total Construction PCEs
6:00 – 7:00	523	--	81	81	--	--	685
7:00 – 8:00[3]	**--**	**--**	**81**	**81**	**--**	**--**	**162**
8:00 – 9:00	57	--	81	81	--	--	219
14:00 – 15:00	154	--	81	81	--	--	316
15:00 – 16:00	--	523	81	81	--	--	685
16:00 – 17:00[3]	**--**	**--**	**81**	**81**	**--**	**--**	**162**

Notes:
1 Source: DEIR, Table 4.12.3-4 – Project Peak (January 2020) – Proposed Project-Related Construction Traffic PCEs, p. 4.12-215.
2 PCE = Passenger Car Equivalent (Reflects conversion of truck numbers to indicate an equivalent number of passenger cars, based on operational considerations.)
3 Analysis hours assumed for DEIR construction traffic analysis are shown in **bold** font and highlighted in yellow.

The non-conservative nature of the construction traffic analysis is further revealed through examination of the tables providing the intersection level of service results. DEIR Table 4.12.3-7 summarizes these results for the peak construction period (January 2020). According to that table, of the 58 calculations presented (i.e., 29 intersections analyzed for the AM and PM peak hours), 44 (76 percent) indicated no change in volume/capacity (V/C) ratio due to construction traffic, with the calculations carried out to three decimal places. In other words, no construction-related traffic was added to those intersections. A significant impact was found at only one intersection – Aviation Boulevard/Century Boulevard.

The cumulative conditions analysis (November 2019), as documented in DEIR Table 4.12.3-8 (DEIR p. 4.12-235) had one additional calculation for which the V/C ratio increased by 0.000. In other words, 45 of the 78 calculations listed on that table showed no increase in V/C, which indicates that no construction traffic was added to the intersection. (The traffic volumes for the construction traffic analysis are not presented in the DEIR, so it is impossible to confirm this.) In this case, three intersections were found to have significant impacts – Aviation Boulevard/ Century Boulevard, Imperial Highway/Aviation Boulevard, and Imperial Highway/I-105 Ramp.

Analyses were conducted for the significantly impacted intersections to determine the effects of implementing recommended mitigation measures. Not surprisingly, perhaps, those analyses concluded that the proposed measures would fully mitigate the construction impacts. That is, the change in V/C ratio after mitigation would be 0.000. It is not clear exactly how that is to be accomplished, given the list of mitigation measures (e.g., formation of a Project Task Force, development of Worksite Traffic Control Plans, etc.), which would generally have little or no effect on construction traffic volumes.

Since the only construction traffic that was considered in the analysis is truck traffic, it would seem reasonable to expect that the mitigation measure outlining designated truck routes might be

effective, but the roads listed there include those having significant impacts – Aviation Boulevard, Century Boulevard, Imperial Highway, and I-105. Another proposed measure calls for establishing designated truck delivery hours, but the description of that measure is so full of loopholes (in particular, repeated use of the phrase "to the extent possible") that it might have no effect whatsoever.

These results are simply not credible. The construction traffic analysis must be revised to reflect more conservative, more realistic consideration of the potential effects associated with almost 1,000 construction workers and the trucks necessary to carry out the proposed project. As illustrated in Table 2 above, it is difficult to avoid the conclusion that the construction traffic analysis hours were arbitrarily selected to avoid impacts. Additional detail is also needed with respect to the specific beneficial effects of the proposed mitigation measures.

Further consideration is also required with respect to the lane closures and other forms of traffic blockage that will occur for extended periods over the course of the construction process. The construction-related thresholds of significance include the following (DEIR pp. 4.12-230 – 4.12-231):

- *Result in temporary lane, alley, or street closures within a major or secondary highway right-of-way for more than one day.*
- *Result in the loss of regular vehicular or pedestrian access to Airport, commercial, or industrial facilities for more than one day.*
- *Result in the temporary loss for more than one day of an existing bus stop or rerouting of a bus route.*

DEIR p. 4.12-237 acknowledges that:

> *Construction of the proposed Project could result in the closure of one or more lanes of a major off-Airport traffic carrying street for an extended length of time. . . . The proposed Project would also require the re-routing of buses, the relocation of the LAX City Bus Center, and the relocation of bus stops.*

Although this is identified as a significant impact, no quantitative analysis is provided to indicate the true magnitude of the issue. In particular, where is this expected to occur? At locations where extended lane closures are anticipated, what will be the resulting vehicular delay and level of service in the AM and PM peak hours? Will there be additional safety impacts and crashes associated with the lane closures? What will be the effect on transit travel times? When bus stops are relocated, what will be the extent of the increase in walk access distance and time for transit passengers? Will it be sufficient to discourage transit usage?

In summary, the analysis of construction traffic impacts is deficient. The analysis appears to have been skewed to ensure that no impacts would occur, despite the arrival and departure of almost 1,000 construction workers in 523 vehicles/hour every day. In addition, more detail is necessary regarding the effects of lane closures that will occur over an extended period.

7. ***Deficient Transportation Demand Management Program*** – A key element of the proposed package of mitigation measures is the implementation of a Transportation Demand Management (TDM) Program (MM-ST (LAMP)-6, DEIR p. 4.12-179 – 4.12-180). This measure calls for the conduct of travel surveys and the formation of a Transportation Management Organization

(TMO), which will then offer various vaguely-defined "amenities/opportunities" to LAX-area employees.

The goal of this mitigation measure is to "[a]chieve a 5 percent trip reduction performance objective," which is further defined as:

- *Elimination of 200 peak hour trips (am or pm) identified as "drive alone" employee trips.*
- *Elimination of 800 average daily one-way trips identified as "drive alone" employee trips.*

It is unclear how the effectiveness of the TDM program will be measured, although perhaps the surveys referred to above might be helpful. More importantly, what happens if the performance objective is not met and the necessary trip reduction does not occur? By the time this failure becomes apparent, surrounding jurisdictions that will be inundated with LAX-generated traffic will have no recourse.

The proposed TDM program must be described in greater detail, and credible evidence of the specific beneficial effects of the various components of the program must be presented. As currently delineated, the value of the TDM program in effectively mitigating the impacts of the proposed project is questionable.

8. ***Failure to Address Freeway Access Deficiencies*** – As currently configured, the freeway access system serving LAX imposes an undue burden on the City of El Segundo. In particular, travelers approaching LAX on northbound I-405 tend to exit the freeway at westbound I-105, rather than continuing to Century Boulevard, where chronic traffic congestion causes delays, inconvenience, and frayed nerves. Unfortunately, the exit ramp from northbound I-405 to westbound I-105 overshoots Aviation Boulevard, so that these travelers are forced to use Nash Street, Maple Avenue, and Sepulveda Boulevard within El Segundo to reach the CTA.

   As passenger traffic at LAX increases, this situation will be exacerbated. The DEIR needs to address the potential for improved access from northbound I-405, particularly with respect to modifications to the northbound-to-westbound ramp between I-405 and I-105 that would allow drivers to exit from that ramp to Aviation Boulevard.

9. ***Nonexistent Project Access Analysis*** – The project proposes three major facilities that will each incorporate substantial parking structures, including a total of 24,300 parking spaces:

   - Intermodal Transportation Facility (West) – 8,000 parking spaces,
   - Intermodal Transportation Facility (East) – 8,300 parking spaces, and
   - Consolidated Rental Car Facility – 8,000 parking spaces.

   The DEIR presents no analysis to evaluate the access systems at these facilities, however. Such an analysis would address whether vehicles will be able to enter the facilities without queuing back onto the public street, thereby creating congestion and potential safety hazards. If left turns are required to enter the garages, can they be made safely? Also, will exiting drivers be able to do so safely, without creating hazards for themselves or passing motorists? Will either entering or exiting vehicles be subject to excessive idling, which would affect air quality and greenhouse gas emissions?

10. ***Mitigation Measures*** – In addition to the questions presented above regarding the TDM mitigation measure, we have identified a number of additional questions concerning the mitigation measures presented in the DEIR Transportation/Traffic section, as follows:

    - *MM-ST (LAMP)-7. Signal System Corridor Improvements – Intelligent Transportation System (ITS), City of Inglewood*: This measure includes a "monetary contribution" toward certain improvements, but does not specify the magnitude of the contribution. Will the proposed project fully fund the needed system upgrades or only pay a "fair share"?

      Also, three of the intersections listed in this measure are also addressed in other mitigation measures, specifically:

      - MM-ST (LAMP)-13. La Cienega Boulevard and Florence Avenue
      - MM-ST (LAMP)-14. Inglewood Avenue and Century Boulevard
      - MM-ST (LAMP)-16. La Cienega Boulevard and Manchester Boulevard

      What is the difference between MM-ST (LAMP)-7 and these other three measures?

    - *MM-ST (LAMP)-8. Signal System Corridor Improvements – Closed Circuit TV (CCTV) Camera and Changeable Message Signs (CMS) Installation*: This measure states that the proposed project, ". . . will provide funding towards implementation of Changeable Message Signs (CMS) along key access corridors to LAX such as Sepulveda Boulevard, La Cienega Boulevard and Century Boulevard."

      The measure does not state how much funding will be provided and is unclear as to whether the specific corridors listed are the only ones where CMS will be installed or if these are only examples of where this might occur. In short, additional specificity is required to allow a meaningful assessment of the beneficial effect of the measure.

    - *DEIR Section 4.12.2.9.3 Roadway Corridor Improvements* lists three significant roadway system improvements. However, these improvements are not designated as mitigation measures (i.e., they have no "MM-ST (LAMP)" number; those numbers skip over these three improvements). Consequently, it is not clear whether the proposed project will actually be required to implement these improvements.

    - *MM-ST (LAMP)-11. Modify the Intersection of La Cienega Boulevard and Arbor Vitae Street*: This measure says that the proposed project will add a second eastbound left turn lane and "contribute to design and implementation of signal system improvement," which will "increase intersection capacity by 10 percent."

      The amount of the contribution toward the signal improvements is unclear. Will the proposed project pay the entire cost or some lesser "fair share"? Further, the specific nature of the signal system improvement is not stated and the conclusion regarding its impact on intersection capacity is unsubstantiated.

    - The indirect impacts of implementing the proposed mitigation measures are not adequately addressed. This is briefly addressed at DEIR pp. 4.12-185 – 4.12-186, but that limited discussion revolves around the following statement:

      > *The environmental impacts associated with the proposed improvements to the off-Airport transportation system would depend on the specific nature, location, and extent of such improvements.*

The "specific nature, location, and extent" of the mitigation measures have presumably been set forth in the paragraphs preceding this statement and are, therefore, known. As such, a meaningful evaluation of the indirect impacts of implementing the measures should be possible. None is provided, however.

11. ***Potential Future Development*** – The DEIR addresses, at a program level, an analysis scenario referred to as "2035 Future With Project and Potential Future Related Development." (DEIR pp. 4.12-153 - 4.12-165) This scenario includes the traffic associated with 900,000 square feet of commercial development in addition to the 2035 Future With Project scenario. No information is presented to describe the specific land use assumptions or the volume of traffic associated with the potential future related development. Clearly, assumptions of this type have been made, as the DEIR presents detailed intersection V/C and LOS results for this analysis scenario. Absent this basic information about the potential future related development, it is impossible to judge the validity of the analysis results for this scenario.

CONCLUSION

Our review of the "Transportation/Traffic" section of the Draft Environmental Impact Report for the LAX Landside Access Modernization Program in Los Angeles, California revealed several substantial issues the affecting validity of the conclusions presented in that document. A modified traffic impact analysis must be prepared, and that updated analysis should be incorporated into a revised environmental document.

We hope this information is useful. If you have questions concerning anything presented here, please feel free to contact me at (916) 783-3838.

Sincerely,

MRO ENGINEERS, INC.

Neal K. Liddicoat, P.E.
Traffic Engineering Manager

845018.1

From: Charles.Mayhew@AA.com
To: WEB COMMENT
Subject: Stakeholder Comment Submitted - Ref. No. 160915095646
Date: Thursday, September 15, 2016 10:10:40 AM

This is to inform you that a comment form was submitted.

Reference No.:	160915095646
Date Submitted:	9/15/2016
From:	Chuck Mayhew
Email:	Charles.Mayhew@AA.com
Company Name:	American Airlines,
Address:	600 World Way
City:	Los Anagels
State:	C
Zip Code:	90045
Project Name:	General Comment
Other Comments:	The Metro Greenline Shuttle Bus many times is over crowded. This is caused by people parking in the Aviation Station for free and using the Shuttle for transportation to and from LAX to go to work. Those that pay to use the Metro Greenline are being denied boarding by this condition. Can you please tell me when this will be resolved

IP Address: 12.47.205.126

From: andrey@lataxi.com
To: WEB COMMENT
Subject: Stakeholder Comment Submitted - Ref. No. 160916144330
Date: Friday, September 16, 2016 2:43:40 PM

This is to inform you that a comment form was submitted.

Reference No.:	160916144330
Date Submitted:	9/16/2016
From:	Andrey Minosyan
Email:	andrey@lataxi.com
Company Name:	Independent Taxi Co.,
Address:	700 N Virgil Avenue
City:	Los Angeles
State:	
Zip Code:	90029
Project Name:	LAMP DEIR
Other Comments:	Independent Taxi Co., is a Franchisee of the City of Los Angeles and authorized LAX Taxicab company. Our only concern is than Taxis will continue to pick up at curbside on the Lower/Arrival Level islands in front of each terminal.

IP Address: 45.48.241.211

From: esievering@hotmail.com
To: WEB COMMENT
Subject: Stakeholder Comment Submitted - Ref. No. 160917172114
Date: Saturday, September 17, 2016 5:21:27 PM

This is to inform you that a comment form was submitted.

Reference No.:	160917172114
Date Submitted:	9/17/2016
From:	Eric Sievering
Email:	esievering@hotmail.com
Company Name:	
Address:	
City:	
State:	
Zip Code:	0
Project Name:	LAMP DEIR
Other Comments:	Hello thanks for working on the people mover idea. I support a people mover, and think it is generally a better idea than a train. I do wish the process of building it could be sped up. Maybe it could be built in sections somehow so it could start to transport people to the airport area, and the second phase could take people all the way. I think this is an important project we should hurry up on. I also think the people mover itself should be built first and everything else around it can be added later as its most important to get it up and running as quickly and safely as possible. Much thanks Eric Sievering

IP Address: 76.246.78.137

From: junk@donahue.cc
To: WEB COMMENT
Subject: Stakeholder Comment Submitted - Ref. No. 160916213101
Date: Friday, September 16, 2016 9:31:15 PM

This is to inform you that a comment form was submitted.

Reference No.:	160916213101
Date Submitted:	9/16/2016
From:	Ed Donahue
Email:	junk@donahue.cc
Company Name:	
Address:	
City:	
State:	ca
Zip Code:	0
Project Name:	LAMP DEIR
Other Comments:	Once again... a plan has been designed by people that apparently NEVER travel, or have not used these facilities in the past. We already have to walk forever to get out of the terminals, now you will make us walk another 500 to 1000 yards to get to your people mover... WITH luggage and kids. Go visit MSP and change planes or airlines sometime.

IP Address: 67.164.107.185

From: YUVIENCO, RACHELLE L. on behalf of LAMPBIZ
To: QUINTANILLA, EVELYN; MARTINEZ-SIDHOM, BRENDA; OSZTREICHER, DANIEL
Subject: FW: Updating LAX
Date: Tuesday, September 20, 2016 11:05:39 AM

From: Stephen Russell [mailto:stephenrusell@sbcglobal.net]
Sent: Sunday, September 18, 2016 7:13 AM
To: LAMPBIZ
Subject: Updating LAX

I urge these for LAX:

Backup power for People Mover system

Have mini HyperLoop for Mover & connect to MTA??

System must counter hacking of trains.

need backup shuttle buses should People Mover breakdown???

Need backup cars for People Mover IF warranted.

EZ ramps On OFF to People Mover.

Larger moving walkways to PeopleMover & to rental Car center.

Need Food Court at People Mover depot away from Terminals.

Need Fuel cells for aux power for whole LAX area.

Food Court near Rental Car Center.

expand US Customs for guests from Tom Bradley Term to People Mover.

Display Project at all Terminals.

Have LAX model in Mayors Office visible for media etc.

Update LAX CCTV alone & Security systems.

Re organize TSA Area for screening.

Link People Movers to Airline Lounges IE British Airways & American Airlines etc.

More can be done.

Past LAX Guest.

From: stephenrusell@sbcglobal.net
To: WEB COMMENT
Subject: Stakeholder Comment Submitted - Ref. No. 160917073659
Date: Saturday, September 17, 2016 7:37:11 AM

This is to inform you that a comment form was submitted.

Reference No.:	160917073659
Date Submitted:	9/17/2016
From:	Stephen Russell
Email:	stephenrusell@sbcglobal.net
Company Name:	
Address:	5538 Ocean View Blvd
City:	La Canada
State:	CA
Zip Code:	91011
Project Name:	General Comment
Other Comments:	In time replace People Mover with modified HyperLoop system going at 80 mph IF viable for route connect to LA City MTA system.

IP Address: 76.246.78.15

From: stephenrusell@sbcglobal.net
To: WEB COMMENT
Subject: Stakeholder Comment Submitted - Ref. No. 160917074047
Date: Saturday, September 17, 2016 7:40:58 AM

This is to inform you that a comment form was submitted.

Reference No.:	160917074047
Date Submitted:	9/17/2016
From:	Stephen Russell
Email:	stephenrusell@sbcglobal.net
Company Name:	
Address:	5538 Ocean View Blvd
City:	La Canada
State:	CA
Zip Code:	91011
Project Name:	LAMP DEIR
Other Comments:	Urge system have Backup Power for People Mover, to counter hacking from outside, replacement cars IF any need service, Biometric scanning for Security along route for employees.Food Court for guests at both stations,Backup cars to add on for traffic IF warranted.Backup shuttle buses in case People Mover is down.

IP Address: 76.246.78.15

From: stephenrusell@sbcglobal.net
To: WEB COMMENT
Subject: Stakeholder Comment Submitted - Ref. No. 160917073528
Date: Saturday, September 17, 2016 7:35:39 AM

This is to inform you that a comment form was submitted.

Reference No.:	160917073528
Date Submitted:	9/17/2016
From:	Stephen Russell
Email:	stephenrusell@sbcglobal.net
Company Name:	
Address:	5538 Ocean View Blvd
City:	La Canada
State:	CA
Zip Code:	91011
Project Name:	General Comment
Other Comments:	Urge Aux power to People Mover, Aux moving walkways also connected to People Mover, must survive hacking from outside.24.7 reliable, have backup cars IF warranted, EZ access to parking rental cars, shuttle bus service to IMC Rental Car center alone.Have Command Center for LAX System in place with CCTV array.Borrow ideas from TV Movie production, Security firms, Hi-tech firms for systems.Biometric scanning for select locales alone People Mover route estd. Dining for People Mover at Both stations, depots.

IP Address: 76.246.78.15

From: YUVIENCO, RACHELLE L. on behalf of LAMPBIZ
To: QUINTANILLA, EVELYN; MARTINEZ-SIDHOM, BRENDA; OSZTREICHER, DANIEL
Subject: FW: Connect LAX EIR
Date: Tuesday, September 20, 2016 11:05:03 AM

From: Stephen Russell [mailto:stephenrusell@sbcglobal.net]
Sent: Sunday, September 18, 2016 7:06 AM
To: LAMPBIZ
Subject: Connect LAX EIR

Cant comment on Connecting LAX since email bounced 2X stating address sent is Restricted.
Tried 2X yesterday & email bounced from site.

PLS Remedy or bad PR for LAX & LAWA.

Past LAX Guest.

From: RandomReceipts@gmail.com
To: WEB COMMENT
Subject: Stakeholder Comment Submitted - Ref. No. 160919102014
Date: Monday, September 19, 2016 10:20:24 AM

This is to inform you that a comment form was submitted.

Reference No.:	160919102014
Date Submitted:	9/19/2016
From:	Alec Frank
Email:	RandomReceipts@gmail.com
Company Name:	
Address:	6533 W. 87th Street
City:	Westchester
State:	CA
Zip Code:	90045
Project Name:	General Comment
Other Comments:	I wish to comment on the LAX Landside Access Modernization Program. Regarding the indicated route of the Automated People Mover, I would reroute the track within the airport from an out-and-back-down-the-center plan to a loop around the perimeter of the roadway with a station at each terminal. This would greatly minimize the walking distance from APM station to eventual airline gate. This would also allow the APM to act as an inter-terminal transportation option.

IP Address: 23.243.10.161

From: MARTINEZ-SIDHOM, BRENDA
To: "creid@pnf.com"
Cc: MARTINEZ-SIDHOM, BRENDA
Subject: RE: Notice of Availability of a Draft Environmental Impact Report - Landside Access Modernization Project
Date: Monday, September 19, 2016 12:47:29 PM
Attachments: image001.png
image002.png
2016 09 15 - EBLAST MAILER - FINAL.pdf

Good afternoon Mr. Reid and thank you for contacting the Stakeholder Liaison's Office at Los Angeles World Airports.

Per your request, attached the PDF Copy of the notification you received via email regarding the Notice of Availability of a Draft EIR for the Landside Access Modernization Project. You can also find additional information, including the Draft EIR, by visiting our program website at www.connectinglax.org .

Thank you.

From: LAX Stakeholder Liaison
Sent: Monday, September 19, 2016 10:14 AM
To: MARTINEZ-SIDHOM, BRENDA
Subject: FW: Notice of Availability of a Draft Environmental Impact Report - Landside Access Modernization Project

From: Reid, Cody
Sent: Monday, September 19, 2016 10:14:11 AM (UTC-08:00) Pacific Time (US & Canada)
To: MARTINEZ-SIDHOM, BRENDA; LAX Stakeholder Liaison
Cc: Deaderick, Michael; Mehzun, Noah
Subject: RE: Notice of Availability of a Draft Environmental Impact Report - Landside Access Modernization Project

Good Afternoon,

Is there a way to receive the below information as an attached PDF? The below information is hard to read/see being included in the message of the email.

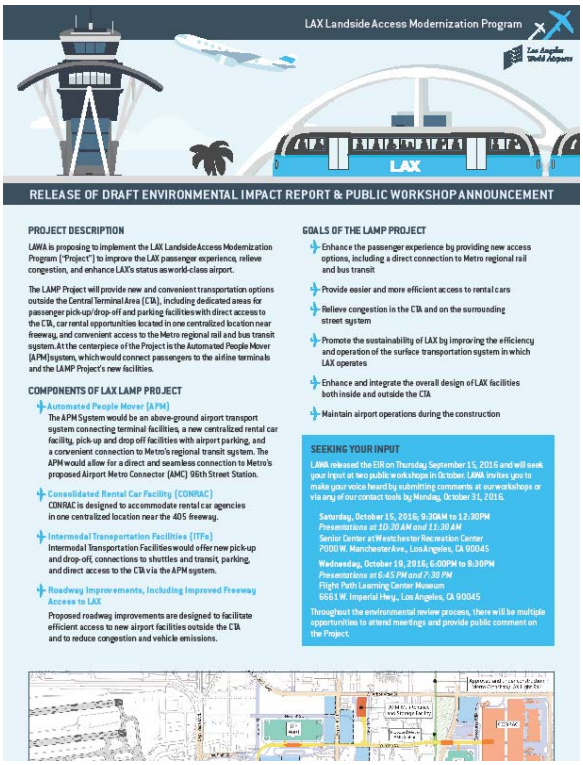
Thank you,

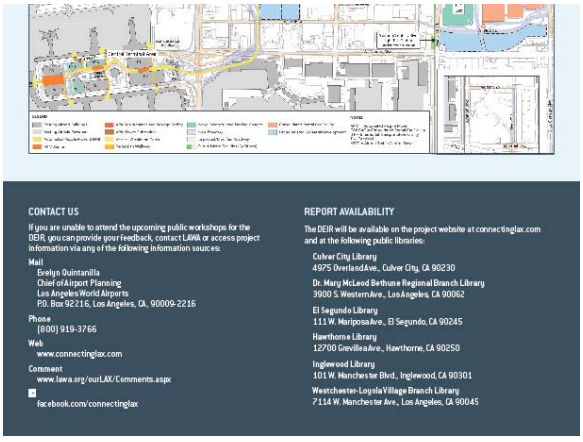
Cody Reid
Staff Accountant

PARK 'N FLY

Office: 404.364.8133
creid@pnf.com

From: MARTINEZ-SIDHOM, BRENDA [mailto:BMARTINEZ-SIDHOM@lawa.org]
Sent: Wednesday, September 14, 2016 8:43 PM
To: LAX Stakeholder Liaison
Cc: MARTINEZ-SIDHOM, BRENDA
Subject: Notice of Availability of a Draft Environmental Impact Report - Landside Access Modernization Project





From: sbirch@flyingcrown.org
To: WEB COMMENT
Subject: Stakeholder Comment Submitted - Ref. No. 160919084329
Date: Monday, September 19, 2016 8:43:41 AM

This is to inform you that a comment form was submitted.

Reference No.:	160919084329
Date Submitted:	9/19/2016
From:	Stephen Birch
Email:	sbirch@flyingcrown.org
Company Name:	Flying Crown Land Group,
Address:	8611 Lemmon Ave
City:	Dallas
State:	TX
Zip Code:	75209
Project Name:	LAMP DEIR
Other Comments:	While I realize this is still in the conceptual stage, my comments center around Section 2.3 and 2.6. Specifically in Section 2.3, I believe that not enough emphasis is given to the historic nature of the Theme Building. While it is not a NPS Registered Landmark, it very much defines the airport and would be subject to DOT Part 4f and Section 106 considerations. As such, any obstruction of the structure would constitute an adverse effect to its sense of place should elevated APM structures be placed in close proximity to the building. I would strongly urge that alternative locations be sought for the APM as to not infringe upon sitelines which may impact the Theme Building and its eventual place on the NPS Registry. Second, as a frequent user of the airport, I strongly urge reconsideration of the proposed image on page 1-3 and design considerations Section 2.6 the APM. The single track with three stations to serve all the terminals is non-condusive to travelers attempting to reach the CONRAC or ITF due to the lengthy transition between terminal and station. The loss of time and unrealistic proximity of the station to T3-T4-TB, and especially the location of proposed pedestrian walkway located between T4-T5 is ill advised. This location is inconvenient and excessive to passengers at both terminals. In addition, the transition from Arrivals to the pedestrian bridge are

	not addressed or articulated in Section 2.6.3. These deficiencies should be addressed and considered. A entire loop APM with third floor access to trains would be preferable for low-impact construction and ability to have smaller stations at each terminal or shared between terminals, ie T1-T2, T3-TB, TB-T4, T6-T6. I am very impressed with all architectural design elements as well as the integration of streetscapes. On a final note, I believe it would be good governance to disclose the use of Ricondo and Associates as consultants since the package clearly has their identity on it, yet does not disclose their involvement.

IP Address: 76.187.37.178

From: danielaosztreicher@gmail.com
To: WEB COMMENT
Subject: Stakeholder Comment Submitted - Ref. No. 160920111259
Date: Tuesday, September 20, 2016 11:13:10 AM

This is to inform you that a comment form was submitted.

Reference No.:	160920111259
Date Submitted:	9/20/2016
From:	Daniel Osztreicher
Email:	danielaosztreicher@gmail.com
Company Name:	
Address:	1700 S. Bundy #12
City:	Los Angeles
State:	CA
Zip Code:	90025
Project Name:	LAMP DEIR
Other Comments:	I love this project

IP Address: 10.68.15.153

GATEWAY Los Angeles AIRPORT BUSINESS DISTRICT

September 23, 2016

Los Angeles World Airports (LAWA)
Attention: Ms. Evelyn Quintanilla
Chief of Airport Planning
P.O. Box 92216
Los Angeles CA 90009-2216

Dear Ms. Quintanilla:

On behalf of Gateway to L.A., a property-based business improvement district, serving area property owners and stakeholders since 1998, we are requesting that LAWA **extend** its 45-day comment period related to the Draft EIR for the LAX Landside Access Modernization Program ("LAMP").

The Draft EIR and its Appendices are 16,504 pages in length. If we were to read every day for 45 days, it would mean reviewing 366 pages or more a day, just to complete the review within this minimal time frame.

A 45-day public review period is an inadequate length of time for a document of this importance which will define the physical and aerial landscape of the landside area, where our members own properties and operate businesses, for our lifetimes and beyond.

Please extend the public review period for an **additional 45 days, to December 16, 2016**.

Very truly yours,

Laurie Hughes
Executive Director
Gateway to L.A. PBID

c: Deborah Flint, CEO – LAWA
Grant Coonley, President – Gateway to L.A. PBID
Councilmember Mike Bonin – City of Los Angeles

9841 AIRPORT BOULEVARD, STE. 100, LOS ANGELES, CA 90045
310 216 7328
WWW.GATEWAYLA.ORG

From: heidigayedorn@gmail.com
To: LAX Stakeholder Liaison
Subject: Stakeholder Comment Submitted - Ref. No. 160926151250
Date: Monday, September 26, 2016 3:12:57 PM

This is to inform you that a comment form was submitted.

Reference No.:	160926151250
Date Submitted:	9/26/2016
From:	Heidi Dorn
Email:	heidigayedorn@gmail.com
Company Name:	
Address:	8740 Tuscany Ave. 106
City:	Playa del Rey
State:	CA
Zip Code:	90293
Project Name:	LAMP DEIR
Other Comments:	Please be sure to consider trash receptacles in all planning. Currently there are NO trash cans in the parking lot at the Aviation Imperial rail station and the lot is filthy. Anywhere where there will be an increase of people means an increase of trash. The surrounding areas, streets, all suffer with no trash receptacles and no pick up. Thank you for keeping our cities clean and attractive for everyone as you go forward to bring more accessibility to this area.

IP Address: 137.159.73.132

From: virgilsevilla@gmail.com
To: LAX Stakeholder Liaison
Subject: Stakeholder Comment Submitted - Ref. No. 161011185750
Date: Tuesday, October 11, 2016 6:57:58 PM

This is to inform you that a comment form was submitted.

Reference No.:	161011185750
Date Submitted:	10/11/2016
From:	Virgil Sevilla
Email:	virgilsevilla@gmail.com
Company Name:	
Address:	1100 Imperial Ave. Apt F
City:	El Segundo
State:	CA
Zip Code:	90245
Project Name:	LAMP DEIR
Other Comments:	Thank you for your mailer I plan to look into this DEIR. If it does not include a walkway through the Sepulveda tunnel it is not human friendly and therefore not a modernization program at all. I envision a glass tube that is environmentally safe to allow humans to walk through from 1 side to the other. It is bad enough that people are heavily restricted in where they may go in or around the airport. Please consider these seriously. We are not waiting for another 50 years to claim another modernization program that is not human friendly. Even if you restrict them, as you have all this time, I still see them walk through. I have heard of some deaths occuring right there and if you continue to ignore it your jobs are all in vain. I dont even want to imagine how gruesome they are.

IP Address: 172.90.218.206

From: ed5ogawa@earthlink.net
To: LAX Stakeholder Liaison
Subject: Stakeholder Comment Submitted - Ref. No. 161015093813
Date: Saturday, October 15, 2016 9:38:24 AM

This is to inform you that a comment form was submitted.

Reference No.:	161015093813
Date Submitted:	10/15/2016
From:	Ed Ogawa
Email:	ed5ogawa@earthlink.net
Company Name:	
Address:	
City:	Westchester
State:	CA
Zip Code:	0
Project Name:	LAMP DEIR
Other Comments:	We need ONE web site where we can get comprehensive information on lane, street, freeway closures for ALL agencies, updated daily. Information in both map and list formats would be helpful. Thanks.

IP Address: 166.137.8.28

From: preciousrobinson@gmail.com
To: LAX Stakeholder Liaison
Subject: Stakeholder Comment Submitted - Ref. No. 161015104414
Date: Saturday, October 15, 2016 10:44:25 AM

This is to inform you that a comment form was submitted.

Reference No.:	161015104414
Date Submitted:	10/15/2016
From:	Precious Robinson
Email:	preciousrobinson@gmail.com
Company Name:	
Address:	5325 W. 93rd St. 204
City:	Los Angeles
State:	CA
Zip Code:	90045
Project Name:	LAMP DEIR
Other Comments:	I urge you to consider environment in the broadest sense including socio-economic-environment. While I empathize with the homeless, the solution is not a pop up informal, tent-mobile home sub neighborhood. Please speed up acquisition of the scattered apartments where citizens must live in the midst on construction and people apparently in transit and some that seem to be on drugs and decreasing neighborhood security. In addition, other methods should be considered to enforce some kind of registration -- even if it is a low cost parking permit so we know who is occupying the space. I live at 5325 W. 93rd street and I am very concerned about the human environment as well as possible disturbances of asbestos.

IP Address: 166.137.8.28

From: Rhammer@LAWA.Org
To: LAX Stakeholder Liaison
Subject: Stakeholder Comment Submitted - Ref. No. 161019043158
Date: Wednesday, October 19, 2016 4:32:07 AM

This is to inform you that a comment form was submitted.

Reference No.:	161019043158
Date Submitted:	10/19/2016
From:	Rod Hammer
Email:	Rhammer@LAWA.Org
Company Name:	
Address:	
City:	
State:	
Zip Code:	0
Project Name:	General Comment
Other Comments:	Aviation, between Century and Imperial is an utter disgrace and reflects the inattention to the neighboring community. The roadway is in disrepair. There is no sidewalk for the pedestrians and workers whom traverse it on foot. And there is no lighting. This is a safety and security issue that reflects poorly on the executive management of LAX. Further, visitors from near and far obtain a seriously negative view of what should be a proud gateway to Southern California. The executive management of LAX needs to implement and execute an immediate plan to upgrade the entire community infrastructure around LAX, an area of which it owns many structures and is the most powerful entity in the area. If I lived around LAX, I would have utter contempt for the lack of professionalism exhibited from top, middle and bottom management.

IP Address: 10.65.33.79

200 West Monroe Street • Suite 1500 • Chicago, IL 60606
Phone: 312-453-1700 • Fax: 312-453-1627

October 4, 2016

Los Angeles World Airports (LAWA)
Attention: Ms. Evelyn Quintanilla
Chief of Airport Planning
P.O. Box 92216
Los Angeles CA 90009-2216

Dear Ms. Quintanilla:

As you may know, TPS Parking Management, LLC d/b/a The Parking Spot operates two established facilities located near LAX providing off-airport parking and complimentary shuttle services to and from the airport.

As you know, the Draft EIR and its Appendices for the LAX Landside Access Modernization Program ("LAMP") are over 16,000 pages in length. LAMP not only has a significant impact on LAX but all surrounding local businesses, like The Parking Spot, that provide a valuable service to the traveling public. We want to be sure that we have enough time to adequately review the Draft EIR and understand what implications the conclusions set forth therein will have on our daily operations today and for the foreseeable future.

A 45-day public review period is simply not enough time to provide the in-depth review that a document of this magnitude and importance should be afforded.

As such, we respectfully request that LAWA please extend the public review period for the Draft EIR at least an **additional 45 days, to December 16, 2016**.

Very truly yours,

Kevin Shrier
Chief Executive Officer
TPS Parking Management, LLC

cc: Deborah Flint, CEO – LAWA
Councilmember Mike Bonin – City of Los Angeles

LAMP-PC00020

theParkingSpot

Neighborhood Council of Westchester Playa
8726 South Sepulveda Boulevard, PMB 191A Los Angeles, CA 90045
213.473.7023 ph • 310.301.3564 fx
email: inquiries@ncwpdr.org • www.ncwpdr.org

October 4, 2016

Evelyn Quintanilla
Chief of Airport Planning
Los Angeles World Airports
P.O Box 92216, Los Angeles, CA 90009-2216

Ms. Quintanilla,

The Neighborhood Council of Westchester Playa (NCWP) represents the Los Angeles communities of Westchester, Playa del Rey and Playa Vista. We write to register our comments regarding the Draft Environmental Impact Report (DEIR) for the Landside Access Modernization Projects (LAMP) at Los Angeles International Airport (LAX). Thank you for the opportunity to comment on the DEIR.

The NCWP recognizes that LAX is a vital economic engine in Los Angeles and Southern California. We also recognize that it is in great need of improvement and modernization to enhance how passengers experience LAX and perceive our city and region. We have several concerns regarding the DEIR for the LAMP.

- The NCWP requests that the public be granted more time than the required minimum comment period of forty-five (45) days. The LAMP is a very significant basket of projects with enormous impacts for the future of LAX and our community as a whole. Forty-five days is insufficient time for the public to review and comment on these projects that have been years in planning. NCWP requests that the comment period be extended an additional 45 days for a total of 90 days.
- The traffic analysis is flawed and underestimates both traffic volume and the negative impacts on the community. The analysis optimistically relies on "pricing strategies" to divert congestion and offers programs such as the LAX TDM/TMA that have no measure of success. These programs must have performance metrics included in order to determine the traffic reduction forecasts.
- The traffic study assumptions/forecasts for 2024 need to be verified after Phase 1 has been in operation for one year. Any inconsistencies with this current EIR Transportation Model forecast must be rectified prior to any Phase 2 approvals.
- The study includes "Fair Share" mitigation solutions to impacts created on the area freeways however funding for construction of these projects is not identified. This project assumes and enables significant passenger growth that will consequently have significant traffic impacts that are effectively not mitigated.

LAMP-PC00021

- A regional, all-inclusive transportation plan, including freeway improvements, intersection improvements and mass transit additions, is needed to insure transportation success of this project. If one area is not addressed/implemented the entire proposed solution to decrease congestion is jeopardized. Funding mandates from LAWA, various cities and state agencies, including Cal Trans, must be required.
- It is unclear if the traffic study has included the anticipated impacts that may result from the Los Angeles Mobility Plan for Playa del Rey - Culver Blvd Street Standards. This recently adopted plan must be considered and traffic study reevaluated.
- Imperial Highway and Aviation Blvd will serve as a primary construction haul routes for this, as well as other projects that are taking place at LAX. Funding needs to be identified to properly improve and maintain these important roadways during and after construction is complete.
- The six years of neighborhood impacts by the reduction of CTA passenger parking during construction will increase parking and ride-sharing pick-ups have not been addressed.
- The assumptions related to the numbers of projected passenger counts and total operations in 2035 are inconsistent with historical trends. The forecast for 2035 has Million Annual Passengers (MAP) at 96 to total operations (in 000's) at 850, which is a ratio of .113. The ratio in 2015 was .127 and you have to go back to 2010/2011 to find a ratio of .113. This may indicate that the MAP is understated by more than 12%.
- LAWA must develop a robust communications plan for the next 10 years that incorporates social media, email, outreach and print, to keep the area stakeholders apprised of construction impacts (noise, late night work, road closures, haul route activity).
- While construction haul routes have been identified, no mention is made of the commuter routes for all other construction related traffic. All construction related traffic routes must be specified.
- This DEIR is silent on this matter but it deserves to be noted. This project must at no time result in new streets or driveways that facilitate access to LAX from the north. This project must in no way result in added traffic or encourage "cut-through" traffic in the surrounding residential neighborhoods.
- The anticipated growth that is facilitated by this project will impact the community of Westchester in the business district on Sepulveda. Many LAX passengers can be seen walking to and from LAX and Westchester on Sepulveda Blvd. The anticipated increase warrants a "Pedestrian Plan" for Sepulveda Blvd. Improvements to the street landscaping, lighting, sidewalks and crosswalks are needed to make this area safer for the visiting LAX passengers.

LAMP-PC00021

NCWP – Manchester Square
October 4, 2016

- The Consolidated Rental Car Facility (ConRac) will be built in the areas known as Belford and Manchester Square. The DEIR indicates that there are 80 homeless individuals who live in the area as per the 2015 LAHSA homeless count. This number may have been correct at that time but grossly understates the current condition of the area. A current unofficial count indicates that the homeless population is more than twice that at roughly, at least 200. Other than underestimating the number of people directly impacted, the DEIR is silent on this enormous social impact on the area. The DEIR concludes that there is not a "substantial number of people" being displaced and that the impacts will be "less than significant". The NCWP strongly disagrees with these conclusions. There are a "substantial" number of people who are being impacted by this project and this should require that LAWA participate financially in the construction of transitional and replacement housing.

We reiterate the need for additional time for a thorough review of the enormous document that is this DEIR. Thank you for the opportunity to comment on this important and much needed project.

Sincerely,

/s/Cyndi Hench

Cyndi Hench
NCWP President

Cc: Councilmember Mike Bonin
Congresswoman Maxine Waters

LAMP-PC00021

From: virgilsevilla@gmail.com
To: LAX Stakeholder Liaison
Subject: Stakeholder Comment Submitted - Ref. No. 161028101156
Date: Friday, October 28, 2016 10:12:09 AM

This is to inform you that a comment form was submitted.

Reference No.:	161028101156
Date Submitted:	10/28/2016
From:	Virgil Sevilla
Email:	virgilsevilla@gmail.com
Company Name:	
Address:	1100 Imperial Ave. Apt F
City:	El Segundo
State:	CA
Zip Code:	90245
Project Name:	LAMP DEIR
Other Comments:	Thank you for extending the comment period and hosting the public workshop. It was a pleasure to meet Steve at the Flight Path Learning Center. Let the builders of the APM build an MPM-mini people mover from 1 side of the tunnel to the other for FREE. Let them know you are seriously considering Elon Musks Tube system which is environmentally friendly and very efficient and a tokyo based company that would like to top their bullet train. Real space age type of transpo to go with our theme bldg not some 1970s replica of an electric train. And they are willing to throw in for FREE a mini version to help solve the safety concerns of our tunnel. See if they dont come running to do some measurements. Drop a name and get it going Steve. The magic word is FREE. Just dont allow another life to be taken or ruined by that place in the future and you will feel it was worth extending the comment period. Sincerely, Virgil

IP Address: 172.90.218.206

From: frank.mastroly@socal.rr.com
To: LAX Stakeholder Liaison
Subject: Stakeholder Comment Submitted - Ref. No. 161031091202
Date: Monday, October 31, 2016 9:12:13 AM

This is to inform you that a comment form was submitted.

Reference No.:	161031091202
Date Submitted:	10/31/2016
From:	Frank
Email:	frank.mastroly@socal.rr.com
Company Name:	Retired,
Address:	7831 Seabreeze Drive
City:	Huntington Beach
State:	CA
Zip Code:	92648
Project Name:	LAMP DEIR
Other Comments:	I think it is “Back to the Drawing Board” for your LAMP APM project. I assume you are well aware of all of the other mayor projects being planned for LAX. However, your CTA APM stations and pedestrian walkways do not seem to take other projects into consideration. In particular, your CTA APM stations and pedestrian walkway locations, at least for Terminals 1, 2, and 3, bear little resemblance to what is required to feed these three terminals. Specifically: The West CTA APM station and pedestrian walkways do not serve the proposed Midfield Concourse which whose DEIR shows an underground APM station nor do they connect with the proposed Terminal 3.5 ticketing area near the TBIT. Your LAMP DIER does not even address access for the proposed Midfield Concourse. The Center CTA APM station and pedestrian walkways do not directly connect with the proposed Terminal 2.5 ticketing area between Terminals 1 and 2. The LAMP DEIR shows a pedestrian passage between the Center CTA APM station and the south-east corner of Terminal 2 and no direct connection to Terminal 3. For the East CTA APM station, your LAMP DEIR shows a pedestrian passage connected to the south-east corner of Terminal 1 and no connection to proposed Terminal 1.5. In fact, this APM station appears to serve only Terminals 7 and 8. Overall. I truly

	wonder if somehow the right hand does not know what the left hand is doing. There really needs to be a meeting among the “powers that be” to resolve these inconsistencies before anything is locked in concrete.

IP Address: 104.35.214.243

FOUR POINTS
BY SHERATON

November 11, 2016

Los Angeles World Airports
Attention: Evelyn Quintanilla
One World Way, Room 218
Los Angeles CA 90045

Re: Comment Letter - Landside Access Modernization Program (“LAMP”) EIR

Dear Los Angeles World Airports – Board of Airport Commissioners:

We are submitting this comment letter to Los Angeles World Airports (“LAWA”) regarding the above-referenced Draft Environmental Impact Report (“DEIR”) for the Landside Access Modernization Program (“LAMP”).

Our property, Four Points by Sheraton LAX is located in the “Landside” area, at 9750 Airport Blvd. Los Angeles, CA 90045.

We have concerns about and provide comments on these issues:

Shuttle Issues:
We currently operate a shuttle into the Central Terminal Area (“CTA”) to serve our customers and guests. Under the EIR with the implementation of “LAMP,” it appears that we will no longer be allowed to pick up and drop off in the CTA, but instead will be limited to the Intermodal Transportation Facility West (“ITF West”).

If the goal under LAMP implementation is to restrict vehicles within the CTA to reduce traffic congestion, it seems contrary to common sense that our shuttle buses - which hold scores of passengers - would be restricted from CTA access, while private cars, taxis, Lyft, Uber, limousines, which often carry only one or two passengers, would still be allowed access to the CTA.

Four Points by Sheraton Los Angeles
International Airport Hotel
9750 Airport Boulevard
Los Angeles, California 90045
United States
T 310 645 4600 F 310 649 7065
FOURPOINTS.COM/

FOUR POINTS BY SHERATON

Our comment and request is that LAWA reconsider this restriction to our shuttle access to the CTA under the LAMP implementation. Our shuttles are "aggregators" of passengers, whereas taxis, Lyft, Uber and limousines typically transport only one or two passengers per trip.

In the EIR's Table 17 of Appendix O of the Off-Airport Traffic Study, the table contains vehicle occupancy numbers during peak travel times that appear to be too low. Our shuttles are quite full during peak travel periods, despite what Table 17 reflects. Our comment and request is that LAWA re-examine these vehicle occupancy assumptions for shuttles during peak periods, and clarify or correct Table 17, which appears to be flawed.

The EIR indicates that private shuttles must *only* use the ITF West. Our comment and request is that private shuttles be allowed access to both of the ITFs, as well as to the CTA. If the goal is to reduce traffic congestion, then if one facility is full or congested, the shuttle buses should be allowed the flexibility of dropping off and picking up at any of these facilities.

Very truly yours,

Peter Kolla
General Manager
T 310 645 4600 F 310 649 7069 D 310 649 7029
Four Points by Sheraton
Los Angeles International Airport
9750 Airport Boulevard, Los Angeles, CA 90045, United States

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United States
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FOURPOINTS.COM/

LAMP-PC00024

MARRIOTT

November 14, 2016

Los Angeles World Airports
Attention: Evelyn Quintanilla
One World Way, Room 218
Los Angeles CA 90045

Re: Comment Letter - Landside Access Modernization Program ("LAMP") EIR

Dear Ms. Quintanilla: Los Angeles World Airports – Board of Airport Commissioners:

We are submitting this comment letter to Los Angeles World Airports ("LAWA") regarding the above-referenced Draft Environmental Impact Report ("DEIR") for the Landside Access Modernization Program ("LAMP").

Our property, the Los Angeles Airport Marriott, is located in the "Landside" area, at 5855 West Century Blvd., Los Angeles, CA 90045.

We have concerns about and provide comments on these issues:

Shuttle Issues:
We currently operate a shuttle into the Central Terminal Area ("CTA") to serve our customers and guests. Under the EIR with the implementation of "LAMP," it appears that we will no longer be allowed to pick up and drop off in the CTA, but instead will be limited to the Intermodal Transportation Facility West ("ITF West").

If the goal under LAMP implementation is to restrict vehicles within the CTA to reduce traffic congestion, it seems contrary to common sense that our shuttle buses - which hold scores of passengers - would be restricted from CTA access, while private cars, taxis, Lyft, Uber, limousines, which often carry only one or two passengers, would still be allowed access to the CTA.

Our comment and request is that LAWA reconsider this restriction to our shuttle access to the CTA under the LAMP implementation. Our shuttles are "aggregators" of passengers, whereas taxis, Lyft, Uber and limousines typically transport only one or two passengers per trip.

In the EIR's Table 17 of Appendix O of the Off-Airport Traffic Study, the table contains vehicle occupancy numbers during peak travel times that appear to be too low. Our

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5855 WEST CENTURY BOULEVARD
LOS ANGELES, CALIFORNIA 90045 USA
T: 310.641.5700
MARRIOTTHOTELS.COM

LAMP-PC00025

shuttles are quite full during peak travel periods, despite what Table 17 reflects. Our comment and request is that LAWA re-examine these vehicle occupancy assumptions for shuttles during peak periods, and clarify or correct Table 17, which appears to be flawed.

The EIR indicates that private shuttles must *only* use the ITF West. Our comment and request is that private shuttles be allowed access to both of the ITFs, as well as to the CTA. If the goal is to reduce traffic congestion, then if one facility is full or congested, the shuttle buses should be allowed the flexibility of dropping off and picking up at any of these facilities.

Very truly yours,

Jeff Hart
General Manager
Los Angeles Airport Marriott

cc: **The Honorable Eric Garcetti**
200 N. Spring St.
Los Angeles, CA 90012-3224
Mayor.garcetti@lacity.org

The Honorable Mike Bonin
200 N. Spring Street
Room 415
Los Angeles, CA 90012
Councilmember.Bonin@lacity.org

Sean Burton
President
Board of Airport Commissioners
Los Angeles World Airports
One World Way
Los Angeles, CA 90045

LAMP-PC00025

November 8, 2016

Los Angeles World Airports
Attention: Evelyn Quintanilla
One World Way, Room 218
Los Angeles CA 90045

Re: Comment Letter in response to LAWA's Draft "LAMP" EIR

Dear Los Angeles World Airports – Board of Airport Commissioners:

On behalf of Hyatt Regency Los Angeles International Airport and Quik Park Parking Garage, we are submitting the following comment letter to Los Angeles World Airports ("LAWA") regarding the above-referenced Draft Environmental Impact Report ("DEIR") for the Landside Access Modernization Program ("LAMP").

1. The DEIR indicates in the Appendix O Report that **shuttle access** to the Central Terminal Area ("CTA") will be restricted (eliminated) for some classes of commercial operators, to encourage pick-up and drop-off at the ITF West, and to reduce congestion in the CTA. Appendix O Report reads: "*LAWA would restrict access to the CTA for some classes of commercial operators such as shared ride vans, scheduled service buses, courtesy shuttles, and pre-arranged charter carriers. LAWA **may** also institute pricing differential strategies to encourage other commercial vehicle operators such as taxis, limousines and … Uber and Lyft .. to pick up and drop off passengers at the ITF West. ….. Approximately 16 percent of all airport traffic would utilize the ITF West, which is assumed to consist of charter vans, taxis, limos and paid rides, **parking patrons, hotel shuttles**, and private vehicle pick ups and drop offs*."

   We are concerned about the impacts to our businesses, which currently have shuttle buses which are allowed to pick up and drop off passengers in the CTA area.

   If the goal under LAMP implementation is to restrict vehicles within the CTA to reduce traffic congestion, it seems counter-intuitive that per the DEIR, shuttle buses which hold scores of passengers, including the hotel shuttles and off-airport parking shuttles, would be restricted under any circumstances from CTA access, while private cars, taxis, Lyft, Uber, limousines – which often carry only one or two passengers – would still be allowed access to the CTA. **We request that LAWA reconsider this restriction on hotel and off-airport parking shuttles accessing the CTA under the LAMP implementation.** Hotel shuttles and off-airport parking shuttles are "aggregators" of passengers, whereas taxis, Lyft, Uber and limousines typically transport only one or two passengers per trip.

LAMP-PC00026

Further, in the DEIR's Table 17 of Appendix O of the Off-Airport Traffic Study, the table contains vehicle occupancy numbers that appear to be too low for some modes of transportation. Table 17 shows that "Vehicle Occupancy" for "Private Parking Shuttles is only 1.9 passengers on Arrival Level 1, and only 3.4 passengers on Departure Level 2. Similarly, Table 17 shows "Vehicle Occupancy" for "Hotel Shuttles" is only 3.5 passengers on Arrival Level 1 and only 3.9 passengers for Departure Level 2. These Vehicle Occupancy numbers, per Table 17's notes, reflect that these passenger numbers/vehicle occupancy numbers are during "**arrivals peak period**" and "**departures peak period**." The reality is that both Private Parking Shuttles and Hotel Shuttles operate close to full and sometimes standing room only, during peak periods. **We request** that LAWA re-examine these vehicle occupancy assumptions for Private Parking Shuttles and for Hotel Shuttles during peak periods, and clarify or correct Table 17.

An alternative, which we request is for LAWA to analyze prior to circulation of the FEIR, to continue to allow **curbside access in the CTA** to commercial vehicles carrying more passengers, while restricting private vehicles, taxis, Lyft, Uber and limousines to dropping off and picking up passengers on the first level of each CTA parking structure **for a fee**, or alternatively those private vehicles, taxis, Lyft, Uber.

2. The DEIR contained little discussion regarding a **possible pedestrian bridge over Sepulveda Boulevard** that would link Century Boulevard properties, businesses and their patrons to the CTA. The only discussion was in the FEIR was that "LAWA would preserve a pedestrian connection between the CTA and W. Century Boulevard as part of the proposed Project, through **either** an at-grade crossing or future pedestrian bridge." A pedestrian bridge linking Century Boulevard across Sepulveda and ultimately to the CTA would provide much **greater safety to pedestrians** than an at-grade pedestrian crossing, and is a priority to us and other owners and businesses who serve the airport. **We request** that the FEIR reflect further analysis including a conceptual pedestrian bridge plan in the FEIR.

We look forward to the above issues raised to LAWA to be addressed in the FEIR in much greater detail, and where appropriate for additional mitigation measures to be recommended.

Very warm regards,

Jeff Rostek
Managing Director
Hyatt Regency Los Angeles International Airport

id	Name	Email	Address	City	State	Zip code	Project_ Name	Comments	Date Submitted
581	Maria Tong	mmtong2000 @yahoo.com	713 Redwood Ave	El Segundo	CA	90245	LAMP DEIR	Dear Evelyn and Committee Members: It is good to know there is a program [Landside Access Modernization Program] looking into the traffic congestion around the LAX area, where the drop-offs and pick-ups of travelers have already increased, along with the air traffic itself. There are a few suggestions I would like to submit to the Committee in response, from the voice of a local El Segundo resident. Not to have those heavy engine aircraft [747 or equivalents, and Air Cargo] fly over the top of residential houses after 10 pm. Even though we have double glass windows or doors, when those heavy engine aircraft take off at a LOW altitude and fly over the top of our house, that noise can wake you up in the middle of the night, and the vibration that occurs makes the structure of the house creak. This creaking noise can also wake you up and causes me to be concerned about damage in the long run. These aircraft take-offs are really too low. Those heavy engine aircraft always fly LOW altitude when they fly over the El Segundo residential houses before heading towards the ocean. The distance is almost under one mile from my house. The heavy engine noise might well be over the limit of human hearing protection. One cannot even work in the yard with this kind of noise on a constant basis.	11/14/2016

To protect the value of El Segundo Estate and the people who live in El Segundo, we need your help and support.

Please allow the development of this Modernization Program to be not only environmental improvement for the ground, but also to Modernize the air traffic environment for people who live in the City of El Segundo, so we can love and be proud to have LAX, the world class airport, as our neighbor.

Thank you for your consideration, concern and support of your neighbors.

Maria Tong

200 West Monroe Street, Suite 1500 • Chicago, IL 60606
Phone: 312.453.1700 • Fax: 312.453.1627

RECEIVED
2016 NOV 15 PM 3:29

November 15, 2016

Los Angeles World Airports
Attention: Evelyn Quintanilla
One World Way, Room 218
Los Angeles CA 90045

Re: Comment Letter - Landside Access Modernization Program ("LAMP") EIR

Dear Ms. Quintanilla:

We are submitting this comment letter to Los Angeles World Airports ("LAWA") regarding the above-referenced Draft Environmental Impact Report ("DEIR") for the Landside Access Modernization Program ("LAMP").

In addition to fully supporting those questions, issues and concerns set forth generally in that certain Comment Letter submitted by Gateway to Los Angeles, dated November 11, 2016, and specifically in paragraphs 1, 4, 5, 8 and 13, we have additional concerns about and provide comments on the following issues:

SHUTTLE ACCESS ISSUES:
As LAWA and the Board of Airport Commissioners are aware, we currently operate shuttle fleets into the Central Terminal Area ("CTA") to serve our customers and guests utilizing each of our facilities located at 9101 Sepulveda Boulevard ("Sepulveda Parking Spot") and 5701 Century Boulevard ("Century Parking Spot"). Under the DEIR with the implementation of "LAMP," it appears that neither of Century Parking Spot or Sepulveda Parking Spot would be allowed to pick up and drop off in the CTA, but instead will be limited to the Intermodal Transportation Facility West ("ITF West"). This is problematic and concerning to us for a number of reasons, set forth below.

If the goal under LAMP implementation is to restrict vehicles within the CTA to reduce traffic congestion, it seems contrary to common sense that our shuttle buses - which hold scores of local passengers - would be restricted from CTA access, while private cars, taxis, Lyft, Uber, limousines, which often carry only one or two passengers, would still be allowed access to the CTA.

In addition to our belief that curtailing CTA access for passenger aggregators like our shuttles is not sound policy, it is not clear how The Parking Spot shuttles from the Sepulveda Parking Spot would even access ITF West. This underscores another significant concern for us in that the DEIR, while it is not explicitly clear, seems to include a prohibition against commercial vehicles utilizing ITF East. Again, we feel strongly that local passenger aggregating shuttles such as those used in our operations should still be permitted to access the CTA, but if that definitively

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will not be the case, it is absolutely not clear to us why there would be any prohibitions against commercial shuttle use of the ITF East, which in the case of the Sepulveda Parking Spot would be the ITF located much closer in proximity than the ITF West.

Our comment and request is that LAWA reconsider this restriction to our shuttle access to the CTA under the LAMP implementation, and in the alternative, provide more information on whether commercial vehicles such as the shuttles utilized by the Sepulveda Parking Spot will have access to the more than just the ITF West (ideally the CTA but at a minimum ITF East). The DEIR indicates that private shuttles must *only* use the ITF West. Our comment and request is that private shuttles be allowed access to both of the ITFs, as well as to the CTA. If the goal is to reduce traffic congestion, then if one facility is full or congested, the shuttle buses should be allowed the flexibility of dropping off and picking up at any of these facilities.

Finally, in the DEIR's Table 17 of Appendix O of the Off-Airport Traffic Study, the table contains vehicle occupancy numbers during peak travel times that appear to be, from our operational knowledge, much too low. Our shuttles are quite full during peak travel periods, despite what Table 17 reflects. Our comment and request is that LAWA re-examine these vehicle occupancy assumptions for shuttles during peak periods, and clarify or correct Table 17, which appears to contain inaccurate information. As we have routinely done in the past with regard to many issues, including this specific item regarding shuttle occupancy, we are more than willing to work with LAWA staff to determine data that we believe will more closely represent real time and life numbers.

OFF-AIRPORT PRIVATE PARKING SHUTTLE ROUTES

Although Appendix W of the traffic impact analysis (TIA) provides an exhibit that identifies existing shuttle routes, there is no information in the DEIR that shows proposed shuttle routes and what the impact on shuttle routes will be due to the proposed changes to be made to 98th Street.

With implementation of LAMP, new shuttle routes will be required, however the DEIR does not disclose or discuss the proposed shuttle routes and what impact this would have to traffic flows on study area roadways and more specifically on 98th Street. Given the fact that our Century Parking Spot location's shuttles, guests and employees rely predominately on 98th Street for ingress and egress, this is very concerning. To underscore this point, the DEIR does not analyze the intersections of 96th Street at Sepulveda Boulevard, 98th Street at Sepulveda Boulevard, and New "A" Street at 98th Street which all may be impacted by the new shuttle routes that will be required to access the ITF and potentially the CTA.

98th Street extension traffic along the study area roadways will increase significantly as identified in Appendix W. Notwithstanding, the DEIR does not evaluate the potential effects of congestion due to the increase in traffic and how this would impact the intersection of 98th Street at Bellanca Avenue for which no operational level of service is disclosed in the DEIR. Given that the DEIR fails to disclose potential impacts to 98th Street at Bellanca Avenue, 96th Street at Sepulveda Boulevard, 98th Street at Sepulveda Boulevard, and New "A" Street at 98th Street it appears that

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the DEIR does not provide adequate mitigation for these impacted intersections and thus fails as a source of public disclosure pursuant to the California Environmental Quality Act (CEQA).

Even more specifically, as identified in the DEIR, the traffic volumes on 98th Street west of Bellanca Avenue during the PM peak hour will increase from 225 trips for existing conditions to 1,625 trips under Future 2035 with LAMP conditions. This is over a 600% increase in traffic that would severely impact access to facilities on 98th Street including but not limited to the Century Parking Spot facility. Furthermore, the DEIR should have evaluated the operational level of service specifically at the Century Parking Spot location but failed to do so even though the traffic volumes for existing and future conditions are available and disclosed in the DEIR. Even more concerning is that the DEIR does not provide a queuing analysis on 98th Street with or without improvements. The queues on 98th Street are more likely than not to block access to existing driveways along the 98th Street corridor given the significant increase (over 600%) in forecasted volumes. In layman's terms, this means that not only will 98th Street have significant back-up but so too will the drive aisles inside of our Century Parking Spot location, causing significant customer dissatisfaction, environmental concerns due to increased vehicle idling not to mention likely insurmountable gridlock in getting into and out of our Century Parking Spot facility.

We strongly believe that the severe increase in traffic due to LAMP along 98th Street will provide for inadequate gaps for vehicles exiting the Century Parking Spot location and thus may also result in a safety concern for vehicles (including guests' vehicle and our shuttles) utilizing our driveway on 98th Street. The safety concerns are further exacerbated by the fact that the proposed roadway improvements on 98th Street will result in a complete elimination of the existing two-way left turn lane that currently provides a safe refuge for inbound and outbound vehicles making a turn on 98th Street. Vehicles wanting to make a left turn into or out of any driveways along 98th Street would now be required to cross two lanes of traffic and would not only block the through vehicle movements, causing delays, but could also result in a safety concern and an increase in automobile accidents (which will undoubtedly also cause delays). The FEIR should evaluate and address these safety issues along the numerous impacted driveways on 98th Street. As LAWA knows, if any new impacts are identified this could warrant recirculation of the DEIR pursuant to CEQA requirements.

The TIA and 98th Street Operational Analysis utilizes the Transportation Research Board, Circular 212 Critical Movement Analysis (CMA) Planning Method for intersection analysis. While this methodology is recommended in the LADOT Traffic Study Policies and Procedures (August 2014) for land use development projects it is not suitable for assessing impacts associated with infrastructure projects including transit, rail, bicycle and roadway improvements. We can all agree that LAMP is more than a mere land use development project. LADOT guidelines specifically state that microsimulation may be necessary to fully understand the effects of the project in terms of queue lengths, traffic signal timing parameters, and transit travel times etc. The DEIR does not provide any microsimulation and therefore fails to disclose potential queuing impacts.

LADOT guidelines also state that intersection capacity at intersections along a congested corridor may need to be adjusted to account for reduced capacity due to gridlock, heavy

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LAMP-PC00028

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pedestrian volumes or other factors. Gridlock and heavy pedestrian volumes are expected under Future Conditions With Project, but the DEIR fails to account for these factors.

Our comment and request is that LAWA analyze the intersections of 96th Street at Sepulveda Boulevard, 98th Street at Sepulveda Boulevard, and New "A" Street at 98th Street for mitigation purposes and take into consideration and address the significant safety and service concerns related specifically to the Century Parking Spot location set forth in the preceding paragraphs as a result of increased 98th street traffic and vehicle queing issues.

MODE SHARE AND TRIP GENERATION

A review of the TIA in Appendix O of the DEIR identifies the various ground transportation mode shares at the CTA, however additional information must be provided to ensure full disclosure pursuant to requirements under CEQA.

Table 17 in the TIA identifies the existing ground transportation mode shares at the CTA as well as the vehicle occupancies assumed in the DEIR technical reports. The source cited for this information is Ricondo & Associates, Inc., however the DEIR does not disclose the count data information to support the mode shares or vehicle occupancies (with vehicle occupancies discussed in more detail in the section herein titled Shuttle Access Issues).

Generally speaking, the DEIR does not use consistent nomenclature when describing different modes of transportation (e.g., private parking shuttles in Table 17 versus off-airport private parking in Table 18). This makes it very difficult for the public and decision makers to appropriately review the documentation and fully understand what, exactly, is being analyzed so it is recommended that the FEIR use consistent nomenclature throughout the EIR.

Lastly, Table 18 in the TIA identifies future mode shares at the CTA, ITFs, and CONRAC. Specifically, the mode share for Off-Airport Private Parking identifies a significant reduction in the mode share from existing conditions (e.g. Table 17) and no information is provided to substantiate this reduction in mode share other than a source reference to Ricondo & Associates, Inc. however, as previously stated, no information from Ricondo & Associates, Inc. is provided in the DEIR. We would like to understand what assumptions were made in determining the significant reduction in mode share from existing conditions. This fact on its face is obviously concerning for an operator whose livelihood depends in large part on capturing mode share, but also raises the question posited here – what information and assumptions were relied upon in coming up with this calculation?

Further confounding us on this issue, Table 6 in the TIA identifies the existing trip generation for Off-Airport Parking during the AM, Mid-Day, and PM Peak Hours. The trip generation for future conditions is not consistent with the decrease in mode share shown in Tables 17 and 18. Again, as stated above, no information is provided to substantiate the trip generation other than a source reference to Ricondo & Associates, Inc. however, as previously stated, no information from Ricondo & Associates, Inc. is provided in the DEIR.

Our comment and request is that LAWA provide more detail with regard to the underlying data, information and assumptions that were used by LAWA and Ricondo & Associates, Inc. in

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determining the figures set forth in the DEIR and specifically Tables 6, 17 and 18 with regard to existing and future mode share and trip generation.

We welcome the opportunity to continue working with LAWA on LAMP and the many other projects that are in store in the years to come. We applaud the efforts of Executive Director Flint and her staff to take these critically necessary steps forward in making sure that LAX operates as a world class airport benefiting the hundreds of thousands of national and international travelers coming through its doors every day, not to mention the scores of local Los Angeles citizens which The Parking Spot is proud to be able to serve during the trip through LAX.

Sincerely,

Kevin Shrier
Chief Executive Officer
TPS Parking Management, LLC

theParkingSpot

LAMP-PC00028

LAW OFFICE OF JOHN P. GIVEN
2461 Santa Monica Blvd., #438
Santa Monica, CA 90404
john@johngivenlaw.com
(310) 471-8485

November 15, 2016

VIA HAND DELIVERY

Los Angeles World Airports
Board of Airport Commissioners
Attention: Evelyn Quintanilla,
Chief of Airport Planning
One World Way, Room 218
Los Angeles CA 90045

Re: Los Angeles International Airport Landside Access Modernization Program DEIR comment letter (State Clearinghouse No. 2015021014)

Dear Honorable Commissioners and Ms. Quintanilla:

The following comments are in response to the Draft Environmental Impacted Report (DEIR) for LAX's Landside Access Modernization Program (LAMP) on behalf of Paul Solomon and 6171 Century, LLC, owner of the building located at 6171 W. Century Boulevard, located within the project area at the northeast corner of W. Century Boulevard and Vicksburg Avenue. 6171 W. Century is home to an 83,000 square foot office building, with tenants employing approximately 300 workers on-site. 6171 Century is a member of the Gateway Los Angeles Business Investment District, and this comment letter adopts by reference any DEIR comment letters submitted by the Gateway LA BID or other Gateway LA BID members to the extent they are not inconsistent with these comments.

As a preliminary matter, please ensure that all projected-related notices are timely provided to this office.

I. Traffic and Circulation

Traffic and circulation issues are the predominant concern, due to 6171 Century's location only one block east of Sepulveda in the heart of the project area between the Central Terminal Area (CTA) and the Intermodal Transportation Facilities (ITFs). It is critical that planned improvements to roadway and other transportation infrastructure in the general and immediate vicinity of 6171 Century do not hamper safe and uninterrupted access to 6171 Century and other nearby businesses by pedestrians, bicyclists, and drivers.

Pedestrian Access

The DEIR should more completely investigate, describe, and analyze pedestrian access to the CTA. In particular, the project must provide for continued safe pedestrian access between 6171 Century and the CTA. 6171 Century tenants appreciate that existing conditions in the

project area allow for relatively easy pedestrian access to the CTA's northern terminals. Terminal 1 is located less than 2,000 feet away. (Once constructed, Terminal 0 will be less than half that distance.) A series of sidewalks and crosswalks along existing street segments provide largely safe pedestrian access.

Challenges do exist, however. The crossing of Sepulveda Blvd is dangerous, and access to the CTA's southern terminals is circuitous and mysterious. Lack of adequate wayfaring signage is a significant problem. Given the project's massive planning and investment, much-needed improvements for pedestrian access to the entire CTA, including improved safety and signage, should not be an afterthought. With the planned Phase 2 removal of the W. Century Boulevard street segment west of S. Sepulveda Blvd. (DEIR 4.12-24), it is critical that accommodations for continued pedestrian access be planned for once the W. Century west of S. Sepulveda street segment is removed.

While pedestrian access to the West ITF has been accounted for in the DEIR, no similar planning appears to have been done to maintain pedestrian access between 6171 Century and other nearby offices, hotels, and other businesses and the CTA. DEIR Appx. O, p.90. The DEIR reports that "Pedestrian access from Century Boulevard to World Way North would be maintained," but no additional details are provided. *Id.* at 95. Pedestrian access between 6171 Century and the West ITF is an available, but inadequate, substitute for pedestrian access to the CTA, because many pedestrian trips would be extended in both time and distance.

This is not merely an issue of pedestrian convenience. When the CTA was largely evacuated recently due to fear of an active shooter, many travelers streamed out of the CTA to Century Boulevard. Consideration of this pedestrian route for emergency evacuation must be considered as part of the project.

Planned pedestrian access between 6171 Century and the West ITF appears to be adequate, but the DEIR should provide additional information to explain planned pedestrian improvements that will accompany Phase I and Phase II street segment changes. Planned pedestrian improvements in the vicinity of the West ITF (including street furniture, lighting fixtures, signposts, newspaper stands, trash receptacles, and other elements, *see* DEIR Appx. O, p. 90) should extend to the businesses along Century Boulevard to encourage and facilitate greater pedestrian use.

Bicycle Access

Continued and enhanced safe bicycle access between 6171 Century and the West ITF should also be further studied and provided as part of the project. A number of current 6171 Century tenants use bicycles as a primary transportation mode, and recent tenant improvements at 6171 Century have included bicycle lockers and shower facilities to encourage this use. With the implementation of new Metro and APM facilities the number of cyclists is likely to grow. Moreover, numerous nearby hotels, offices, and other businesses would likely increase facilities for their workers, tenants, and guests when planned LAMP facilities are constructed, particularly if bicycling infrastructure is intelligently expanded beyond what is presently planned.

The DEIR contemplates amending Mobility Plan 2035 in the project area to maintain consistency between the project and Mobility Plan 2035. DEIR 4.8-44. The DEIR finds that there will be no significant impacts to bicycle facilities. DEIR 4.12-153. While maintaining consistency with current planning goals and ensuring no significant impacts to bicycle facilities are admirable goals, the project could go a lot further toward expanding bicycle use within and without the project area, by planning for and providing bicycle facilities in addition to those already planned. The DEIR should provide a greater level of detail with respect to bicycle infrastructure, which would promote substantially greater input from the cycling community and other stakeholders to ensure that project plans are sufficient for their intended purpose and can continue to expand to adequately support a growing cycling community.

Existing and planned bicycle facilities are presented in Appendix O, Off-Airport Traffic. Figure 8, Existing and Planned Bicycle Facilities, DEIR Appx. O, p. 69. The proposed bicycle facilities described in that graphic appear to be somewhat inconsistent with those described in the DEIR elsewhere. *See* DEIR, Figure 2-55, p. 2-203. A clarification of the conflict between proposed facilities is necessary.

Finally, to the extent that bicycle facilities are not planned to extend further west on Century Boulevard than Airport Boulevard, 6171 Century suggests that the proposed Multi-Use Path be extended along the north side of W. Century Boulevard from Airport Boulevard to S. Sepulveda Boulevard. Alternately, a similar bicycle facility could be made part of 98th Street west of Airport Boulevard as shown in the above-cited Figure 8. DEIR Appx. O, p. 69.

Vehicular Access and Parking

It is critical that vehicle access to 6171 Century, its dedicated parking facilities, and other on- and off-street parking be maintained during all phases of construction and operation of the LAMP project. 6171 Century has a 12-space lot on site, 200 dedicated parking spaces in the Joe's Parking structure located at 6141 Century Boulevard, and tenants and guests of 6171 Century also use the Quik Park facility on Vicksburg Avenue between Century and 98th Street as well as parking meters located on Vicksburg Avenue between Century and 98th Street, and on 98th Street east of Vicksburg Avenue.

The DEIR notes that "[c]onstruction of the proposed Project could result in the closure of one or more lanes of a major off-Airport traffic carrying street for an extended length of time" and that "crosswalks, bike paths and pedestrian pathways may be restricted or close for a period of time." DEIR 4.12-238. The DEIR notes only that alternate routes would be provided. For such a massive undertaking, the DEIR provides very little detail as to the timing of expected impacts. For example, a Gantt chart provided in the DEIR shows that roadway projects during Phase I will begin in the second quarter of 2018 and continue until the fourth quarter of 2023, but these are not broken down in a meaningful way. Table 2-15, Construction Phasing, DEIR 2-179. Phase II roadway improvements will not begin until after the APM is operational, but no specifics with respect to expected timing are provided. DEIR 2-182. It would be most helpful to local businesses if a greater degree of precision could be provided for the timing of both Phase I and Phase II roadway impacts and expected detours and approximate durations of short and long-

term closures.

Mitigation measure MM-ST (LAMP)-1 creates a Construction Traffic Project Task Force to coordinate among LAWA and other public infrastructure projects and provide notification and an opportunity for public input and support, among other things. DEIR 4.6-36 to 37. This will be a vitally important mitigation for local businesses, but does not excuse the project from providing as much advance information about specific locations and timing of roadway impacts as possible, and amending that information with increasing levels of precision as actual construction commences.

With respect to mitigation measure MM-ST (LAMP)-4, which restricts "designated major or secondary highways" from being closed to vehicular or pedestrian traffic except at night or on weekends, because the street configuration in the vicinity of LAX is complex, 6171 Century requests more information as to specifically which streets and street segments are so designated, in order to know how the mitigation might protect its vehicle, parking, and other access. Depending on which streets this mitigation is intended to protect, additional mitigation measures may be necessary.

The DEIR notes that approximately 200 metered parking spaces will be removed, including approximately twelve in reasonably close proximity to 6171 Century along 98th Street to the east of Vicksburg Avenue. Table 2-14, Impacted Street Parking, DEIR p. 2-174. The DEIR also provides analysis of several operational options regarding 98th Street. DEIR Appx. O, pp. 190-192. The analysis of 98th Street operational options does not mention parking meters, suggesting that whether or not one of the operational options is selected, the parking meters will be removed as described in the main DEIR document. It would be helpful for the FEIR to clarify whether this is actually the case. Business owners generally prefer to retain as much short- and long-term street parking in the vicinity of their businesses as possible.

II. Other Project Concerns

Potential Cellular Telephone Infrastructure Conflicts

6171 W. Century Blvd. is a three-story office building with multiple cellular telephone antennas located on the roof. These provide cellular telephone signals radiating out in multiple directions, including to the south and east, toward the proposed elevated APM. The cellular telephone antennas are located at heights of approximately 45–60 feet. The APM guideway is described as varying in height from approximately 70 feet above grade within the CTA to a height of approximately 50 feet above grade near the ITF East and car rental facility. DEIR p. 2-32. Note, however, that the DEIR seems inconsistent on this point, stating that the top of rail height of the APM structure in the vicinity of the ITF West facility is only 40 feet. DEIR Appx. M, p. M-40. The precise height of the APM Guideway in the vicinity of 6171 W. Century is thus not entirely clear.

Whatever the height of the APM, the DEIR should analyze whether the location of the APM structure or trains might interfere with the existing cellular telephone antenna infrastructure

at 6171 W. Century, and if so, how significant the interference could be, and what mitigations would minimize such an impact, if any.

Noise and Vibrations

Based on the location of the 6171 Century building amidst major Phase II roadway activities in and around W. Century Boulevard, it appears that the 6171 Century tenants could experience significant noise impacts during one or both construction phases if traffic noise exceeds a property line measurement of an increase of 3 db(A) or more in Community Noise Equivalent Level (CNEL). Given that Phase I construction activities in the vicinity of 6171 Century and other local businesses will commence in 2018, and Phase II activities are intended to commence in approximately 2023 and not be completed until approximately 2035, it is critical that any potentially significant noise impacts that might affect local businesses at the center of construction and operational activities be fully identified and mitigated, since the building will experience 18 years or more of construction activity. An additional noise mitigation should be introduced requiring periodic noise monitoring in high construction activity locations and high construction traffic locations for both Phases I and II to determine whether additional noise mitigations might be necessary.

III. Conclusion

Thank you for the opportunity to provide these comments on the LAX LAMP project DEIR.

Sincerely,

John P. Given

Cc: Paul Solomon, 6171 Century, LLC

GATEWAY Los Angeles AIRPORT BUSINESS DISTRICT

310 216 7328
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November 15, 2016

Los Angeles World Airports
Attention: Evelyn Quintanilla
One World Way, Room 218
Los Angeles CA 90045

Re: Comment Letter in response to LAWA's Draft "LAMP" EIR

Dear Ms. Quintanilla:

On behalf of **Gateway to LA, a Property-based Business Improvement District ("Gateway")** serving area property owners and stakeholders since 1998, we are submitting the following comment letter to Los Angeles World Airports ("LAWA") regarding the above-referenced Draft Environmental Impact Report ("DEIR") for the Landside Access Modernization Program ("LAMP").

1. The DEIR indicates in the Appendix O Report that **shuttle access** to the Central Terminal Area ("CTA") will be restricted (eliminated) for some classes of commercial operators, to encourage pick-up and drop-off at the ITF West, and to reduce congestion in the CTA. Appendix O Report reads: "*LAWA would restrict access to the CTA for some classes of commercial operators such as shared ride vans, scheduled service buses, courtesy shuttles, and pre-arranged charter carriers. LAWA **may** also institute pricing differential strategies to encourage other commercial vehicle operators such as taxis, limousines and … Uber and Lyft .. to pick up and drop off passengers at the ITF West. …. Approximately 16 percent of all airport traffic would utilize the ITF West, which is assumed to consist of charter vans, taxis, limos and paid rides, **parking patrons, hotel shuttles**, and private vehicle pick ups and drop offs.*"

   Gateway to LA is concerned about the impacts to the business and operations of those members who operate hotels and parking facilities, which currently have shuttle buses which are allowed to pick up and drop off passengers in the CTA area.

   If the goal under LAMP implementation is to restrict vehicles within the CTA to reduce traffic congestion, it seems counter-intuitive that per the DEIR, shuttle buses which hold scores of passengers, including the hotel shuttles and off-airport parking shuttles, would be restricted under any circumstances from CTA access, while private cars, taxis, Lyft, Uber, limousines – which often carry only one or two passengers – would still be allowed access to the CTA. **Gateway requests that LAWA reconsider this restriction on hotel and off-airport parking shuttles accessing the CTA under the LAMP implementation.** Hotel

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shuttles and off-airport parking shuttles are "aggregators" of passengers, whereas taxis, Lyft, Uber and limousines typically transport only one or two passengers per trip.

Further, in the DEIR's Table 17 of Appendix O of the Off-Airport Traffic Study, the table contains vehicle occupancy numbers that appear to be too low for some modes of transportation. Table 17 shows that "Vehicle Occupancy" for "Private Parking Shuttles is only 1.9 passengers on Arrival Level 1, and only 3.4 passengers on Departure Level 2. Similarly, Table 17 shows "Vehicle Occupancy" for "Hotel Shuttles" is only 3.5 passengers on Arrival Level 1 and only 3.9 passengers for Departure Level 2. These Vehicle Occupancy numbers, per Table 17's notes, reflect that these passenger numbers/vehicle occupancy numbers are during "**arrivals peak period**" and "**departures peak period**." The reality is that both Private Parking Shuttles and Hotel Shuttles operate close to full and sometimes standing room only, during peak periods. **Gateway requests** that LAWA re-examine these vehicle occupancy assumptions for Private Parking Shuttles and for Hotel Shuttles during peak periods, and clarify or correct Table 17.

Additionally, several of the Gateway hotels are closer to the ITF East than to the ITF West. Similarly, several of the Gateway private parking operators are closer to the ITF East than the ITF West. The DEIR seems to indicate that hotel and private parking shuttles must ***only*** use the ITF West. **Gateway requests** clarification in the Final EIR (FEIR) that would accommodate hotel and private parking shuttles being allowed access to both ITFs, as well as to the CTA. If the goal is to reduce traffic congestion, then if one area is full or congested, the shuttle buses should be allowed the flexibility of dropping off and picking up at any of these facilities.

Gateway requests clarification in the FEIR related to the shuttle restriction issue for hotel shuttles and private parking shuttles. Gateway believes the DEIR, as written, unfairly concludes that to reduce congestion in the CTA, that CTA access should be eliminated for hotel and private parking shuttles which have high passenger occupancy, but at the same time allow CTA access to private vehicles, taxis, Lyft, Uber and limousines, with low passenger occupancy.

An alternative, which Gateway requests LAWA to analyze prior to circulation of the FEIR, is to continue to allow **curbside access in the CTA** to commercial vehicles carrying more passengers (for a reasonable fee per shuttle trip), while restricting private vehicles, taxis, Lyft, Uber and limousines to dropping off and picking up passengers on the first level of each CTA parking structure **for a fee**, or alternatively those private vehicles, taxis, Lyft, Uber and limousines can drop off or pick up at one of the ITFs **for free**.

Another alternative analysis which **Gateway requests** LAWA at least consider is that the FEIR analyze reclassification of taxis and Transportation Network

Carriers ("TNCs") like Lyft and Uber so that these commercial operators are treated in a manner which is consistent and fair compared to other commercial operators (which other commercial operators' shuttles carry more passengers per vehicle) who desire access to the CTA. If the goal is to reduce congestion in the CTA, hotel and private parking operator shuttles should not be arbitrarily penalized and denied access to the CTA, while private vehicles, taxis, Lyft, Uber and limousines which carry fewer passengers get to continue such CTA access.

2. The DEIR shows a diagram of existing shuttle routes, but does not include a diagram or analysis of future shuttle routes with the LAMP project implemented. **Gateway requests** that the FEIR show such a "future, with project" diagram in its FEIR.

3. **Gateway requests** clarification in the FEIR related to the future location of the **taxi, limousine and TNC holding area** under LAMP implementation. Fairly recently, this holding area was shifted by LAWA to allow vehicular access to the holding area from 98th Street, which access has negatively impacted traffic conditions along 98th Street and thus negatively impacted Gateway property owners and businesses due to the increased congestion along this corridor. The Off-Airport Traffic Study in Appendix O appears to be silent on the future location or relocation of the taxi holding area under LAMP implementation. Gateway strongly urges LAWA to analyze the impacts of the existing taxi holding area in terms of vehicular counts, and that the FEIR will reflect a location which does not allow access onto 98th Street within the BID area.

4. In terms of essential streets that serve Gateway to LA properties and businesses, 98th Street is second only to Century Boulevard in terms of its importance to Gateway. Under LAMP implementation, the vehicular traffic along 98th Street will be significantly altered and increased: 98th Street will be extended to provide an east-west connection between the 405, the CONRAC, the ITF East and the ITF West; a new or altered intersections will be created; a new segment of 98th Street will be constructed beneath the METRO/LAX Crenshaw rail line; and an existing segment of 98th Street will be widened. **Despite the amount of additional traffic that will now impact 98th Street, out of 183 intersections studied in the DEIR, only one intersection along 98th Street was analyzed**. Gateway does not understand this oversight, especially related to future conditions, and whether the alterations to and additional traffic along 98th Street will cause significant impacts. If only one intersection (98th Street and Airport Boulevard) along 98th Street was studied, how can the DEIR reach a conclusion that no further mitigation measures are required along 98th Street so that under LAMP implementation 98th Street does not end up in a gridlocked roadway condition? **Gateway requests** that additional 98th Street intersections be studied prior to circulation of the FEIR, including 98th Street and Bellanca, 98th Street and Aviation, 98th Street and Concourse Way, and 98th Street and Sepulveda, and that if there are impacts, that appropriate mitigation measures be recommended in the FEIR.

5. While the DEIR contains discussion related to the intersection of Bellanca Avenue and Century Boulevard, it was not clear based on Gateway's review of whether there was adequate analysis of future **queuing or "stacking" conditions** on both 98th Street (for vehicles headed westbound on 98th who are turning left onto Bellanca), as well as for cars travelling southbound on Bellanca trying to turn onto Century Boulevard. Especially during peak periods, Gateway has concerns about whether the respective intersections' Level of Service and the possibility of queuing or stacking of vehicles at the Bellanca/98th Street intersection and at the Bellanca/Century intersection under LAMP implementation were adequately analyzed. **Gateway requests** that the FEIR clarify these impacts, and if needed to include adequate mitigation measures.

6. In a collaborative effort several months ago, Gateway representatives, the City of Los Angeles Planning Department, the City's outside design team, and LAWA worked on streetscape and design plans leading to the creation (but not implementation) of the **Century Boulevard Streetscape Plan**. While the DEIR references the Century Boulevard Streetscape Plan and its design guidelines, and *seems* to indicate its implementation under the LAMP improvements, it is not included as an actual mitigation measure. **Gateway requests** that the FEIR clarify whether implementation of the Century Boulevard Streetscape Plan will be done under the LAMP program, and a timetable showing when the Streetscape Plan improvements will be implemented. Gateway is very concerned that adequate sidewalks to enhance pedestrian flow, bicycle lanes, pedestrian connectivity, and pedestrian and bicycle safety impacts be mitigated under the LAMP improvements.

7. The DEIR contained little discussion regarding a **possible pedestrian bridge over Sepulveda Boulevard** that would link Century Boulevard properties, businesses and their patrons to the CTA. The only discussion was in the FEIR was that "LAWA would preserve a pedestrian connection between the CTA and W. Century Boulevard as part of the proposed Project, through **either** an at-grade crossing or future pedestrian bridge." A pedestrian bridge linking Century Boulevard across Sepulveda and ultimately to the CTA would provide much **greater safety to pedestrians** than an at-grade pedestrian crossing, and is a priority to Gateway owners and businesses. **Gateway requests** that the FEIR reflect further analysis including a conceptual pedestrian bridge plan in the FEIR.

8. From Gateway's review of the DEIR, it is not clear to Gateway whether the ITF East will accommodate LAWA employee parking *and* LAX passenger parking. While our review of the DEIR indicates that the ITF East may provide 8,300 parking spaces in a structure, there is also discussion that alternatively, the ITF East may provide a 1,400-parking space surface lot, which is a difference of 6,900 parking spaces. **Gateway requests** that the FEIR provide clarification about: (a) the likely number of total parking spaces that will be provided in the ITF East; (b) when those ITF East parking spaces will become available; and (c)

who the ITF East parking spaces will accommodate (how many parking spaces for LAWA employees, and how many parking spaces for LAX passengers); and (d) **where LAWA employee parking** will be located if **off-airport** and within the BID's borders.

Additionally, in terms of the DEIR analysis concerning "**Potential Future Collateral Development**" sites, land uses were referenced but did not include the possible land use of private parking facilities. Since the DEIR indicates that the ITF East may provide 8,300 parking spaces in a structure, or alternatively, the ITF East could provide a 1,400-parking space surface lot, which is a difference of 6,900 parking spaces, **Gateway requests** that one of the land uses for "Potential Future Collateral Development" sites includes private commercial parking facilities, as well as greenbelt space, to provide flexibility. Additionally, since some of these Potential Future Collateral Development sites are anticipated to be used temporarily for construction staging based on the LAMP facilities' building/development schedule, a **timeline** should be provided in the FEIR of approximately ***when*** these sites, which the EIR estimates could accommodate up to 900,000 square feet of commercial development, could be available for future collateral development.

9. The EIR indicates in Section 1.4.1.11.2 related to **Law Enforcement and Police related impacts** that:

"*The proposed Project would result in an increase of uses that would generate a demand for police protection services by passengers and employees. The proposed Project* ***could*** *include the placement of a satellite LAWAPD facility office within proximity to the CONRAC or ITF East to maintain adequate response times across the Project site, if needed. As such, the proposed Project would* ***not*** *result in a substantial increase in on-airport population or land use changes that would require a substantial increase in law enforcement services to maintain adequate services or require new or expanded facilities without providing adequate mechanisms for addressing these needs. The proposed Project would also incorporate various planned security features to reduce increased demand on LAWAPD, including but not limited to security fencing, surveillance cameras, security lighting, and emergency phones/call boxes. As discussed in Section 4.11.2, Law Enforcement, the proposed Project would have a less than significant impact with incorporation of mitigation measures.*"

Gateway is concerned about adequate police protection, considering the millions of new square feet of development under the LAMP within the Gateway area and a significant increase of people and vehicular traffic coming to the new development which will include the Consolidated Rental Car Facility (CONRAC); the Intermodal Transportation Facilities (ITF East and ITF West), the Maintenance Facilities, the Automated People Mover System (APM) and its stations.

These facilities alone – i.e., CONRAC, ITFs, Maintenance Facilities, APM and its stations - without counting any "*potential future related development*" will result in **over 10 million square feet of new development**, require many employees to staff each facility, attract thousands of people and airport passengers to the CONRAC, ITFs and APMs daily, and attract thousands of cars either dropping off

or picking up passengers, or parking. The facilities are being developed to limit vehicular traffic into and out of the Central Terminal Area (CTA) roadways, meaning that vehicles will be driving to and leaving from the "landside" non-airport area around Gateway to LA properties, in unprecedented numbers.

However, the **Law Enforcement mitigation measures** called for in the EIR are only for new lighting, cameras, call boxes and fencing. Instead of developing new police facilities and adding police personnel, the EIR is equivocal and states that the proposed Project "***could***" include the placement of a satellite LAWAPD facility office within proximity to the CONRAC or ITF East, but it is not a mitigation measure.

The EIR states: "At this time, LAWA has not included a satellite [police] office in the proposed Project description…" [Page 4.11-43 of EIR]

Gateway believes that the mitigation measure related to law enforcement, requiring only new lighting, cameras, call boxes and fencing, is not adequate to address the exponential increase in people, vehicular traffic and over 10 million square feet of new development under the LAMP improvements (CONRAC, ITF East, ITF West, Maintenance Facilities, APM and its stations). **Gateway requests** that the Final EIR reflect the inclusion of a new, fully-staffed satellite LAPD station to be located within the Gateway to LA boundaries.

10. Similarly, regarding mitigation measures as related to **fire facilities and staffing** under the LAMP improvements, Gateway is concerned as to whether the mitigation measures proposed in the DEIR are adequate considering the LAMP facilities which will bring over 10 million square feet of new development, including the CONRAC, two ITFs and APM system and other improvements, which facilities will help facilitate and transport thousands of passengers daily off-airport. For example, the height of the Automated People Mover system within Gateway's area will range from 50 to 70 feet in the air. If there are **mechanical malfunctions** or acts of terrorism, is there an existing fire station within close distance with trained fire personnel and equipment to reach a rail car that is full of passengers who need to be de-boarded? No such discussion was found in the DEIR. Instead, the DEIR reflected mitigation measures meant for a small development, such as compliance with fire and building code, new fire hydrants, sprinklers and fire extinguishers, which seems inadequate to protect neighboring Gateway properties after the massive LAMP facilities are developed and activated. **Gateway requests** that the Final EIR reflect the inclusion of a mitigation measure which adds specially-trained fire personnel, equipment and possibly an expanded fire station facility within Gateway's border to mitigate possible impacts under the LAMP improvements.

11. Likewise, with the addition of new traffic circulation patterns, over 10 million square feet of new development under the LAMP, including the CONRAC, two ITFs, the APM system and other improvements, which facilities will help facilitate

and transport thousands of passengers daily off-airport, Gateway has concerns about **emergency response times** as the DEIR should have identified delays in response times and proposed mitigation measures. Gateway's hotels rooms hold thousands of guests daily and Gateway businesses employ many service and professional personnel. If there is an emergency, Gateway owners are concerned about delays in emergency vehicles responding to the situation on a timely basis. Gateway requests that the FEIR clarify emergency response times, identify possible delays with development of the LAMP facilities, and propose adequate mitigation measures to be responsive.

12. In Gateway's review of the DEIR, there appeared to be no analysis of impacts from **light pollution and noise pollution** related to the rooftop parking activity of both the ITF East and ITF West. Since both ITFs will be developed with open roof parking, there is the potential for these open parking areas on the roofs to measure the size of a football field, as hundreds of vehicles will be parked on an open floor of parking with no roof covering the top. The DEIR should have included an analysis of potential impacts from light from the cars parking on the ITF roof at night, as well as from car alarms going off. Without adequate mitigation measures, this could impact Gateway hotel patrons facing either ITF, due to the night-time illumination from the rooftop parkers' car headlights. If car alarms go off, this could affect Gateway office tenants during the day and Gateway hotel patrons at night. **Gateway requests** that the FEIR reflect an analysis of these issues and propose mitigation measures if appropriate.

13. The DEIR reflects a mitigation measure called "**Construction Traffic Project Task Force**" or MM-ST (LAMP)-1, which states that LAWA will establish a Project Task Force specific to LAMP construction, to coordinate deliveries, monitor traffic conditions, advise motorists about detours and congested areas, and monitor and enforce delivery times and routes. **Gateway requests** that representatives from Gateway be included as members of this Project Task Force.

14. In Gateway's review of the DEIR, we found a lack of analysis concerning these possible impacts and corresponding mitigations, and request clarification or such analysis be discussed in the FEIR:

    a. Quantification of Vehicle Miles Travelled (VMT) on new street segments and on new or altered intersections, including "A" Street, "B" Street, "D" Street, Concourse Way extension and 98th Street extension. This lack of data in the DEIR makes it difficult to understand the potential impacts to Gateway owners and businesses in terms of traffic intensity and vehicular flow near their properties, and access or vehicular ingress/egress issues related to their properties.

b. The impact to existing properties along La Cienega Boulevard related to **new vehicular turn patterns** under LAMP that may affect Gateway property owners and businesses' ingress and egress along La Cienega Boulevard.

c. In terms of the "Potential Future Collateral Development" sites, the DEIR is silent about the development assumptions in terms of FAR or development intensity, making it difficult to understand the impacts to Gateway properties with the proposed development of the LAMP facilities **and** development of the "Potential Future Collateral Development" sites. For example, did the DEIR assume a certain Floor Area Ratio for the "Potential Future Collateral Development" sites or a particular land use?

d. Regarding: 1) the widening of 98th Street just east of Airport Boulevard; 2) the extension of 98th Street; the La Cienega/405 new ramp, no detailed design plans were provided in the DEIR.

e. Gateway did not see a discussion in the DEIR related to remote passenger check-in and/or luggage check-in at the ITF or CONRAC facilities, and requests that the FEIR discuss whether these services will be included as part of LAMP implementation.

f. Related to the development of METRO's Airport Metro Connector (AMC rail station) there was no discussion analysis in the LAMP DEIR related to how LAWA, the LAPD, the LAWAPD and/or the LAFD will coordinate fire-life-safety-emergency response as well as response to transient/homeless issues between the various City and County agencies.

We look forward to the above issues raised by Gateway to LA to be addressed in the FEIR in much greater detail, and where appropriate for additional mitigation measures to be recommended.

Very truly yours,

Laurie Hughes
Executive Director
Gateway Los Angeles

Grant Coonley
President
Gateway Los Angeles

c: Los Angeles City Councilmember, Mike Bonin
c: Los Angeles City Mayor, Eric Garcetti

Los Angeles International Airport Area Advisory Committee

Committee Members: Residents of El Segundo, Inglewood, Lennox, Hawthorne, Culver City, Marina del Rey and Westchester/Playa del Rey

NOV14 12:11PM

November 14, 2016

Evelyn Quintanilla, Chief of Airport Planning
Los Angeles World Airports
1 World Way, Room 218
Los Angeles, CA 90045

NOV14 12:11PM

Dear Ms. Quintanilla:

The Los Angeles International Airport Area Advisory Committee (LAXAAC), a committee of residents of the communities surrounding Los Angeles International Airport (LAX), is submitting these comments on the Draft Environmental Impact Report for the Landside Access Modernization Program (LAMP).

Initially, we commend LAWA for its efforts with respect to the LAMP, which our Committee fully anticipates will substantially improve not only the passenger experience at LAX but also improve the ground traffic in the neighborhoods surrounding the airport. We look forward to the day when the improvements described are fully operational. Nonetheless, there are some issues which the DEIR does not address adequately, and must be resolved in the final EIR.

The ITF, CONRAC and APM

As neighbors of the airport, our Committee members are hopeful that these facilities would take a substantial amount of traffic off the side streets as well as from the Central Terminal Area (CTA). In order for that to happen, passengers must actually use these facilities.

With respect to baggage check-in, the DEIR says only that there may be baggage check-in at both the ITF and the Consolidated Rental Car Facility (CONRAC), but that such baggage check-in may not occur until some unspecified time in the future, subject to FAA and TSA approval (Section 2.4.2). Nonetheless, we would hope that LAWA would do everything in its power to implement such facilities as soon as possible and to have them be complimentary for passengers. We expect that free check-in of bags at these locations would significantly impact their level of use, particularly for people with mobility issues, as well as for large families with substantial amounts of luggage.

The DEIR's discussion of the amount of time it would take passengers on the Automated People Mover (APM) to travel from CONRAC (9 minutes) and the ITF (7.7 minutes) to the CTA, mentions the wait time between trains, which it estimates as only two minutes (Table 2.2), but does not discuss the time to access the APM from parking or drop-off points. We are concerned that the additional time necessary to do so will impact usage of the APM. If, for example, it takes substantially longer to access and ride the APM from the ITF than it would take to be driven to the terminal and dropped off there, the EIR should mandate methods by which LAX can encourage passengers to use these facilities rather than to continue to follow the current procedure of having someone drive them into the CTA for pickup and drop off. The discussion of "pricing strategies" (page 85) to encourage use of the ITF instead of the CTA appears vague and needs clarification.

Although the DEIR considers alternatives for the APM, it does not discuss the possibility of constructing the APM so that it would be possible at a later date to construct an additional APM station

should it be determined that the walkways to the various terminals are too long. We recommend that LAWA evaluate whether it is possible to construct the APM to allow for future additional stations.

It is our understanding that the Metro light rail station proposed at 96th Street and Aviation Boulevard will not offer a park-and-ride lot. For that reason, the final EIR should include mitigation measures to discourage daily rail commuters from parking at the CONRAC or ITF in order to avoid an adverse impact on the availability of parking spaces for LAX customers.

In addition, although we commend the landscaping improvements planned for Sepulveda Boulevard, we anticipate that there will be additional numbers of passengers who will walk to and from LAX from Westchester on Sepulveda Boulevard. In order to make this area safer, LAWA should develop a mitigation plan for pedestrians for that street, with improvements in sidewalks, crosswalks and lighting.

Although the DEIR discusses cell phone waiting lots as a measure to encourage use of the ITF and CONRAC, there is no discussion of where such lots will be located. The current cell phone waiting lot has not been well used, due either to its location or the lack of publicity about it. Other parking lots (*i.e.*, Ralphs/CVS) and side streets such as West 92nd Street currently serve as *de facto* cell phone waiting lots, creating inconvenience for neighborhood residents.

Traffic

We are concerned that the traffic analysis underestimates the future traffic volume in the communities surrounding the airport, as well as the negative impacts of such volume on those communities. All the traffic volume forecasts for 2024 must be re-evaluated when LAMP's Phase 1 has been completed so that accurate traffic volume statistics are reviewed prior to any Phase 2 approvals.

We are concerned that traffic headed to the ITF and CONRAC will create traffic jams for northbound traffic on Aviation and La Cienega Boulevards and westbound traffic on Century Boulevard and Arbor Vitae Street. The DEIR does not fully discuss whether traffic headed for these facilities could be routed onto dedicated side streets which feed directly into them. Even with such mitigation, Aviation and Century Boulevards are likely to see greatly increased congestion, so we recommend that the DEIR implement staggered traffic lights and other mitigation measures on those streets. To avoid further cut-through traffic in the surrounding communities, the plan should not add any new streets that would permit further LAX access from the north.

In addition, funding for construction of the mitigation measures for the area freeways is not identified. In the event that LAWA is not permitted by law to fund these mitigation measures itself, funding from state agencies including Cal Trans and from surrounding cities must be specified. The new dedicated off-ramps from Interstate 405 are very important to the use of the ITF and CONRAC, and therefore, the funding of such improvements needs to be clarified. Can LAWA fund such improvements, or must other entities, such as the California Highway Department, participate? If so, to what extent is their participation expected? It would be pointless to identify mitigation measures that cannot be funded.

In addition, there is no reason to delay the implementation of those traffic mitigation measures that pertain to traffic generated by LAX employees and contractors. They should be implemented as soon as possible.

Construction Impacts

As neighbors of LAX, our committee members will be greatly impacted by the long-term construction that the LAMP will necessitate, and which the DEIR finds are "significant and unavoidable." We are pleased that the DEIR includes methods and procedures to ensure strict enforcement of all directives for controlling air pollution, noise, dust, hours of operation, construction workers' parking and transportation, truck hauling routes, equipment and materials staging and storing areas, and disturbance to neighboring communities. Please ensure that the construction permits provide for strict enforcement to mitigate the problem of fugitive dust and particulate matter spreading into nearby residential areas from construction sites.

We do not see in the DEIR any discussion of the impacts to all the surrounding communities caused by the reduction of CTA passenger parking during construction. We fully expect that passengers will increase their parking on residential streets during this construction, and the EIR should mandate mitigation measures to minimize that.

In addition, Imperial Highway is currently serving as a main hauling route during construction, and is in dire need of improvement. The EIR must include mitigation measures to improve and maintain this important thoroughfare both during and after construction, and must identify funds for such work.

We also are concerned about the 80 homeless individuals who the DEIR states are living in the Belford and Manchester Square areas who would "likely be absorbed into the nearby surrounding communities" (4.10.3.2.2), and the inadequate proposals which the DEIR suggests will shelter such people. Displacement of such people is not a "less than significant" impact (page 1072), and merely coordinating with other government agencies is inadequate. The final EIR should specify that LAWA assist financially with the construction of replacement housing for such people.

Finally, we hope that LAWA would implement a plan to communicate with the surrounding communities regarding construction impacts using both traditional and social media outlets.

Other Issues

The DEIR envisions the addition of 10 million square feet of airport facilities, yet the DEIR does not discuss the obvious need for additional police and fire department resources to serve such new facilities.

The relocation of the USO facility to the Theme building (Section 2.5.3) would not be easily accessible to service members because they will need to go to unsecured areas to access the USO facility. As it currently stands, many service members do not use the USO facility because it is too inconvenient for them to leave the secured area of their terminals for the USO facility. We do not see the proposal as an improvement, and recommend that the EIR propose moving the USO facility into a secured location accessible to all terminals.

In conclusion, we again compliment LAWA on focusing its efforts on improving the passenger experience at LAX and we look forward to the implementation of these plans. Please let us know if you have any questions regarding our views on the DEIR.

Very truly yours,

William Cumming

William Cumming, LAXAAC Chair
Los Angeles International Airport Area Advisory Committee (LAXAAC)
1 World Way, P.O. Box 92216
Los Angeles, CA 90009-2216
Enclosure (one-page description of our committee's role)

cc: Board of Airport Commissioners
Los Angeles Mayor Eric Garcetti
Culver City Mayor Jim Clark
Inglewood Mayor James T. Butts, Jr.
El Segundo Mayor Suzanne Fuentes
Hawthorne Mayor Alex Vargas
Councilman Mike Bonin
Supervisor Janice Hahn
Supervisor Mark Ridley-Thomas
Executive Director Deborah Flint

Los Angeles International Airport Area Advisory Committee
Committee Members: Residents of El Segundo, Inglewood, Lennox, Hawthorne, Culver City, Marina del Rey and Westchester/Playa del Rey

Mission Statement

The Los Angeles International Airport Area Advisory Committee (LAXAAC) has been in existence since 1976 as an advisory board to the Board of Airport Commissioners (BOAC).

Members of the committee are appointed by the appropriate legal authority (such as the Mayor or County Supervisor) in the communities immediately surrounding LAX:

El Segundo,
Lennox,
Hawthorne,
Inglewood,
Culver City,
Marina del Rey,
and the Westchester and Playa del Rey areas of Los Angeles.

The purpose of LAXAAC is to provide the BOAC with information regarding community sentiment with respect to airport operations. The members of LAXAAC have one overriding concern about LAX: **safety.** This concern includes safety for those who work or live near LAX in addition to air passengers, crews, and aircraft. Other significant concerns for committee members are noise, air and other pollution, and surface traffic in and around their communities.

The members of LAXAAC will continue to participate in LAX issue discussions and proposals and look forward to on-going interaction with the members of the BOAC and LAWA staff.

06/15

ARSAC Alliance for a Regional Solution to Airport Congestion
7929 Breen Ave. Los Angeles, CA 90045 (physical)
322 Culver Blvd., #231 Playa del Rey, CA 90293 (box)
310 641-4199 WWW.RegionalSolution.org info@regionalsolution.org

November 15, 2016

Comments to 9-2016 LAMP draft EIR STATE CLEARINGHOUSE NO. 2015021014

Evelyn Quintanilla
Chief of Airport Planning
Los Angeles World Airports
P.O. Box 92216
Los Angeles, CA 90009-2216.

Submitted online: www.lawa.org/ourLAX/comments.aspx

Dear Evelyn Quintanilla:

ARSAC has had no interest in filing suit against the Landside Access Modernization Project (LAMP). We then formally agreed in our 2016 Memorandum of Understanding with Los Angeles World Airports (LAWA) and the City of Los Angeles (MOU) that ARSAC will not file suit over the draft Environmental Impact Report (EIR) or aspects of this project. Pursuant to our rights under the MOU, we submit these comments to the LAMP DEIR.

ARSAC has participated in several briefings from LAWA and voiced concern over some aspects of this project but, in the totality, supports reduction of traffic in surrounding communities and Central Terminal Area (CTA) traffic via development of improved multimodal access into LAX and establishment of an effective network of regional airports. The following topics of concern are provided in accordance with the MOU to document our concerns and comments so that we may ultimately achieve the best possible project result.

Controlling Document Policy Changes

- Reverse the changes made during the previous Master Plan effort that modified the City General Plan to instruct constituents of the Westchester Playa Del Rey Plan to discover details of the LAX Plan and LAWA Plans from LAWA which would have precedence over their community rather than for LAWA to understand the existing WPDR Plan and to coordinate or plan accordingly.
- Removal of regional cooperation requirement should not be done. The EIR Goals and Objectives (P.7-2) fails to recognize that removal of regionalization statements eliminates the requirement to consider context within all network of airports instead of the narrower focus on only LAX.
- Removal of reference to the "Fly Away" Program, an on-going successful program, should not be removed.
- The new Appendix A is to provide for Monitoring and Reporting annually, but eliminates some requirements for mitigation efforts. This change is in conjunction with elimination of Specific Plan requirements because "LAWA does not intend to initiate any new LAX Master Plan projects." This "no new projects" could be changed after these requirements are removed. LAWA

currently, in good faith, intends to provide regular reporting of impacts but new management could change this if the requirement is removed.

- P7-10 (section 7.3) removes language regarding off airport parking, number of gates, and flyaways. It should instead include the ARSAC-LAWA MOU requirements.
- P7-11 (section 7.3.2) references some of the mitigation requirements but not all. All mitigations should be included. It also refers to air pollution reviews that should be based on actual data in subsequent years, not an assumed amount with no increase. Further, LAWA should be documenting PM 0.1 micron particle size as well as the "required" sizes. It is well documented that the smaller particles are more dangerous to breathe and that the correlation with larger sizes does not exist. This additional data should be required to create history until CARB or other agencies determines acceptable levels and the make up of particles.

Extension of MTA Metrorail

- Ensure that future rail designs can be extended in the into the Northside Development and north up either Sepulveda or Lincoln Boulevards. Although out of the scope of this project, also make it possible to accommodate transit south into the South Bay as well.

Automated People Mover (APM) and Central Terminal Area (CTA) improvements

- Accommodate luggage check as early as possible to minimize impacts on travelers with more than one bag or bulky items, children, elderly, or disabled.
- Within CTA ensure commercial and emergency vehicles are not impeded along with effective evacuation routes for vehicles and people.
- The proposed above grade APM must be convenient for both arrival and departing levels and for transferring passengers between terminals.
- Ensure the design will all for changes in service into each terminal along curbside or gates instead of locking in the few stops up the middle of the parking lots which require extended travel to the curbside before going to the gates.

General Comments

P 6-8 of the LAMP DEIR states "…based on the above analysis,…would not directly or indirectly induce LAX passenger growth." This is contrary to earlier studies. Congestion and inconvenience does impact growth at one airport or another when alternatives are available. A prior study showed that roadway capacity and gate constraints limited ultimate growth rather than current runway capacity. An anology is: if a group uses an quart pitcher to serve drinks and is satisfied then if a two gallon pitcher is substituted there will be more to serve as needed by a larger group. A comprehensive assessment of capacity constraints has not been completed. We expect "Natural" increased demand from population and economic growth to have as big an impact as the LAMP improvements so that congestion may remain after the project is complete.

The assumed passenger capacity and expected vehicle counts need clarification. LAWA has stated that it is based on the FAA estimates of 850K operations; whereas LAWA repeatedly has used a 2035 estimate of 96 MAP as the basis for estimating flight passengers to be used to serviced and as a basis for estimating for numbers of vehicles. The two numbers appear inconsistent. Attachment A is backup

material for this capacity review in which we calculated the annual ratio of millions of annual passengers (MAP)/100,000 flight operations using the annual flight operations/passengers information reports provided on the LAWA website. .

When the 2004 when Master Plan Alternative D was created it was expected that 153 gates would limit LAX capacity to 78.9 MAP (which coinsidently was the estimate for the limiting factor due to vehicles into the CTA). A changed flight mix with larger aircraft holding more passengers per flight operation and airline efficiency passenger load factors increases voids that assumption. This calculated ratio increased steadily from 2004 through 2015 (the last complete year available). The MAP increases yearly until the 2035 figure. The 2015 ratio calculates a 2035 estimate of 108 MAP, not 96. We would expect other limitations to stop LAX growth and cause the additional unconstrained growth sent to regional airports.

Additional comments

1. ARSAC had asked in its comment letter on the NOP to include other feasible APM configurations in the Central Terminal Area as a part of the range of alternatives. ARSAC's suggestions for APM alignments were created with passenger convenience in mind by going to all terminals with a minimum of walking distance between APM stations and the passenger terminals. Why was this analysis not done?
2. In proposing a "spinal" APM alignment in the CTA, it appears that LAWA has engaged in "pre-determination" of an alternative. The other alternatives included in the DEIR do not offer other APM alignments; it is as though the alteratives presented were "straw men" rather than feasible alternatives. Please explain how this selection of alternatives meets CEQA requirements?
3. ARSAC requests that LAWA consider building in a wye (three point train switch track) at the east end of the APM alignment in the CTA. The purpose of the wye would be to allow for LAWA to construct a future loop or double loop APM route in the CTA where the APM could be routed to all passenger terminals.
4. Historic Preservation- Theme Building. ARSAC agrees that the Theme Building be protected as a landmark. ARSAC encourages LAWA to find a new concessionaire to re-open the Theme Building as a restaurant and to have the observation deck open to the public.
    a. Why was Flight Path Learning Center & Museum listed as potential Theme Building tenant?
    b. Who at Flight Path did LAWA consult with before including a potential move to the Theme Building in this DEIR?
5. Historic Preservation- 1961 Control Tower. ARSAC agrees that the original "Jet Age" airport control tower should be preserved. As a part of this preservation, will LAWA reinstall the metal louvers that once clad the control tower to return the tower to its 1961 appearance?
6. Paleontological Survey. In Appendix A, PDF page 140, it is written, "Some areas were fenced-off and inaccessible during the survey; therefore, PCR could not thoroughly inspect these areas but they could be viewed from a distance."
    a. Why did the survey team not get access to the areas they needed to view? What efforts were made to make certain that access was granted?
    b. Why did LAWA pay for a report that was not complete where the survey team only looked through a fence and actually examined the soil of the subject properties?

ARSAC Alliance for a Regional Solution to Airport Congestion
8055 W. Manchester Ave., Ste. 710 Playa del Rey, CA 90293

    c. Does LAWA feel that the survey is adequate for CEQA compliance purposes? Or will LAWA have the survey updated before the Final EIR?
7. Upper Level and Lower Level Roadway user changes. At a recent BOAC meeting, staff had presented moving hotel shuttle buses and TNC's to the lower level. Other users would be confined to either upper or lower levels and a few could go to both. How does this proposal fit into LAMP if at all?

We look forward to your responses.

Sincerely,

Denny Schneider
President
denny@welivefree.com (213) 675-1817

Robert Acherman
Vice President
racherman@netvip.com (310) 927-2127

Attachment A Evaluation of the Passenger Capacity at LAX

Here is year over year comparisons the last 10 using data from the LAWA.org website:

year	ops (000)	MAP	MAP/100K ops
2004 extrap	800	78.9	0.099
2008	558.4	59.8	0.107
2009	503	56.5	0.112
2010	520.7	59	0.113
2011	547.9	61.9	0.113
2012	549.9	63.7	0.116
2013	559.1	66.7	0.119
2014	578	70.7	0.122
2015	587.6	74.9	0.127
2035	850	96	0.113

*plugged in 96 MAP for 2035 estimate given by LAWA.

In 2004 (yr of the initial settlement) LAWA was limited to 78.9 Million Annual Passengers MAP)
this was a ratio of .099. This ratio increases every year since 2008 due to the introduction of larger aircraft and a higher load factor of more completely filled aircraft.
The last complete year, 2015, was 0.127. We would expect this to continue to increase as the load factors approach full and the aircraft coming to LAX grow in size. This is NOT the case of the LAWA estimate used of 96 MAP and 850,000 operations. This leads to a conclusion that the flight mix used for numbers of aircraft is questionable.

The total number of passengers is important on LAMP because it's the basis on estimating the number of vehicles entering the CTA and thereby impacting pollution and traffic counts. Given this number of operations assumed and the current load factor/size of aircraft would result in 107 MAP in 2035.

One or both of the numbers assumed are wrong...

LAMP-PC00032

October 4, 2016

Ms. Evelyn Quintanilla
Chief of Airport Planning
Los Angeles World Airports
1 World Way, Room 218
Los Angeles, CA 90045

Subject: LAX Landside Access Modernization Program – SUPPORT

Dear Ms. Quintanilla,

The Valley Industry and Commerce Association (VICA) supports the proposed Los Angeles International Airport (LAX) Landside Access Modernization Program (LAMP), which would enhance vehicular and pedestrian access to the airport.

As one of the largest international airports in the United States, we must ensure that passengers and visitors have convenient, affordable and reliable access to the airport facilities. Unfortunately, due to increasing demand, access to areas around the Central Terminal Area (CTA) have become severely congested. With LAX serving as the largest international gateway on the West Coast, VICA supports the proposed LAMP to improve passenger quality-of-service and provide world-class facilities for its customers.

In order to transform the airport into a modern airport, Los Angeles World Airports (LAWA) is committed to redeveloping ground access to the airport. We believe these improvements will provide seamless connections to major highway and public transit systems, easing traffic and congestion for all Angelinos. Without a direct connection to Metro, a consolidated car rental facility and alternative modes of transit access to the CTA – businesses and local residents will continue to face heavy traffic congestion.

Since 2004, LAWA has sought to address these concerns by proposing new facilities, infrastructure and system improvements to provide new options for passengers and employees accessing the passenger terminal areas. The DEIR represents years of collaboration and hard work to advance and transform LAX's access system. This plan will provide more certainty, reduce traffic congestion and improve air quality around the airport.

The project components – including the access to the Automated People Mover (APM), Intermodal Transportation Facilities (ITFs), Consolidated Rental Car Center (CONRAC) and a direct connection to Metro – will strengthen the region's economic standing and promote business growth throughout Southern California. By removing the number of vehicles within the CTA, LAWA anticipates improved traffic flow throughout surrounding areas of the airport.

LAMP-PC00033

LAX was created as a portal for economic investments throughout California. In 2015, LAX handled 655,564 aircraft landings and takeoffs. By enhancing the passenger experience with new access for all modes of transportation, Southern California is securing its place as an economic leader. Our local businesses rely on LAX to provide a connection to domestic and foreign markets around the world.

VICA is proud to support the LAX Landside Access Modernization Program as presented in the September 15, 2016 Draft Environmental Impact Report (DEIR). We believe LAWA has made a good-faith effort to communicate with effected stakeholders, mitigate potential negative impacts and put forward a strong proposal to ease traffic around LAX and promote economic growth.

Sincerely,

Kevin Tamaki
VICA Chairman

Stuart Waldman
VICA President

Valley Industry & Commerce Association • 16600 Sherman Way, Suite 170 Van Nuys, CA 91406 • phone: 818.817.0545 • fax: 818.907.7934 • www.vica.com

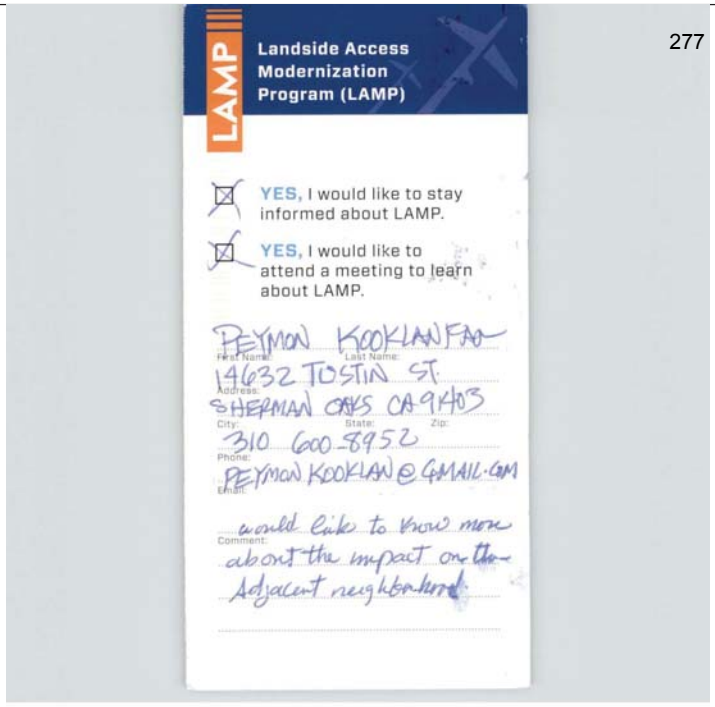
LAMP-PC00033

From: markcully@gmail.com
To: LAX Stakeholder Liaison
Subject: Stakeholder Comment Submitted - Ref. No. 161105145204
Date: Saturday, November 05, 2016 2:52:30 PM

This is to inform you that a comment form was submitted.

Reference No.:	161105145204
Date Submitted:	11/5/2016
From:	MARK CULLY
Email:	markcully@gmail.com
Company Name:	
Address:	PO Box 680
City:	Trabuco Canyon
State:	CA
Zip Code:	92678
Project Name:	LAMP DEIR
Other Comments:	Appenix J of your DEIR fails to include the former NIKE site, located at the intersection of Westchester Parkway and Pershing Drive. The remaining portion of the site houses the Jet Pets business, however these buildings, along with silos formerly located in the area where Westchester Parkway intersects Pershing Drive, helped form a significant missile defense system during the post-WWII Cold War era. This site is worth review, inclusion and preservation. Thank you.

IP Address: 47.138.213.9



LAMP

Landside Access Modernization Program (LAMP)

☒ YES, I would like to stay informed about LAMP.

☒ YES, I would like to attend a meeting to learn about LAMP.

First Name: PEYMON Last Name: KOOKLAN

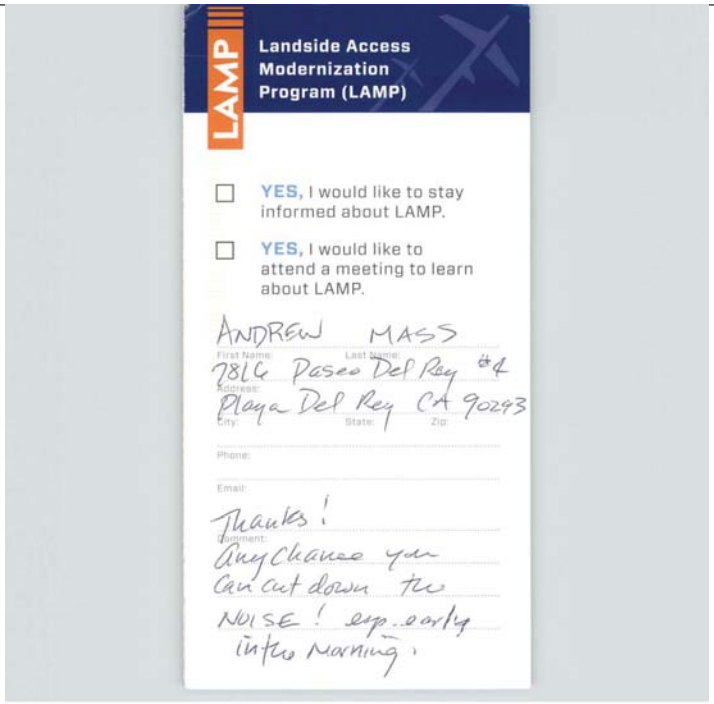
Address: 14632 TUSTIN ST.

City: SHERMAN OAKS State: CA Zip: 91403

Phone: 310 600-8952

Email: PEYMON KOOKLAN@GMAIL.COM

Comment: would like to know more about the impact on the Adjacent neighborhood



LAMP

Landside Access Modernization Program (LAMP)

☐ YES, I would like to stay informed about LAMP.

☐ YES, I would like to attend a meeting to learn about LAMP.

First Name: ANDREW Last Name: MASS

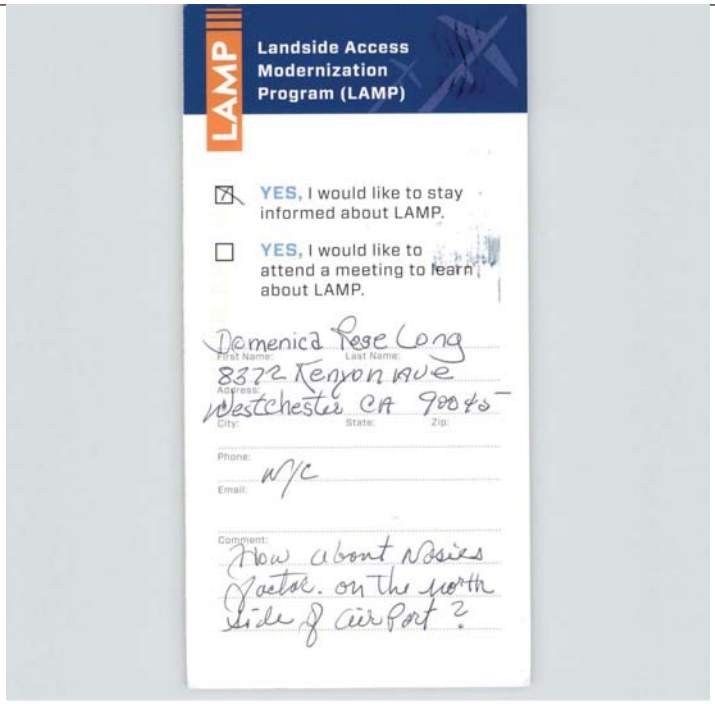
Address: 7816 Paseo Del Rey #4

City: Playa Del Rey State: CA Zip: 90293

Phone:

Email:

Comment: Thanks! Any Chance you can cut down the NOISE! esp. early in the Morning.



LAMP

Landside Access Modernization Program (LAMP)

☒ YES, I would like to stay informed about LAMP.

☐ YES, I would like to attend a meeting to learn about LAMP.

First Name: Domenica Rose Last Name: Long

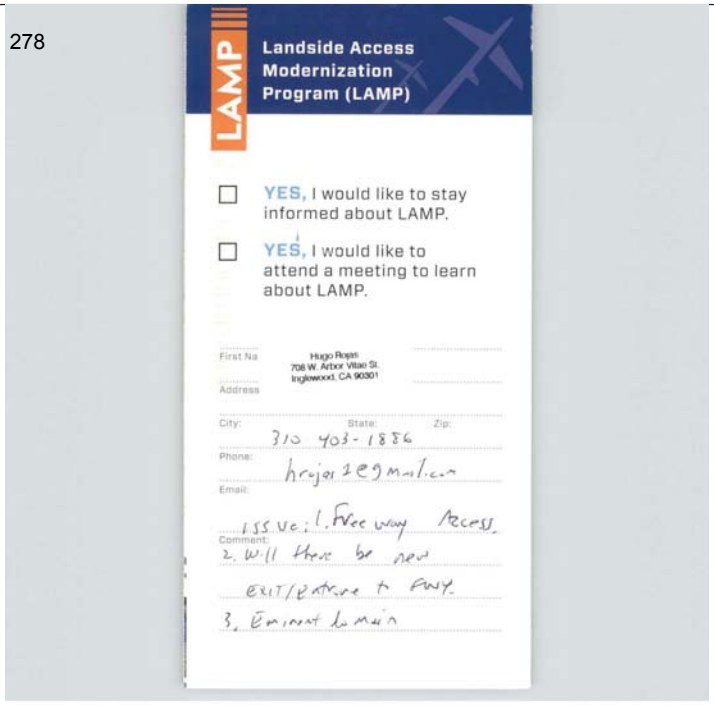
Address: 8372 Kenyon Ave

City: Westchester State: CA Zip: 90045

Phone: N/C

Email:

Comment: How about Noise factor on the north side of airport?



Landside Access Modernization Program (LAMP)

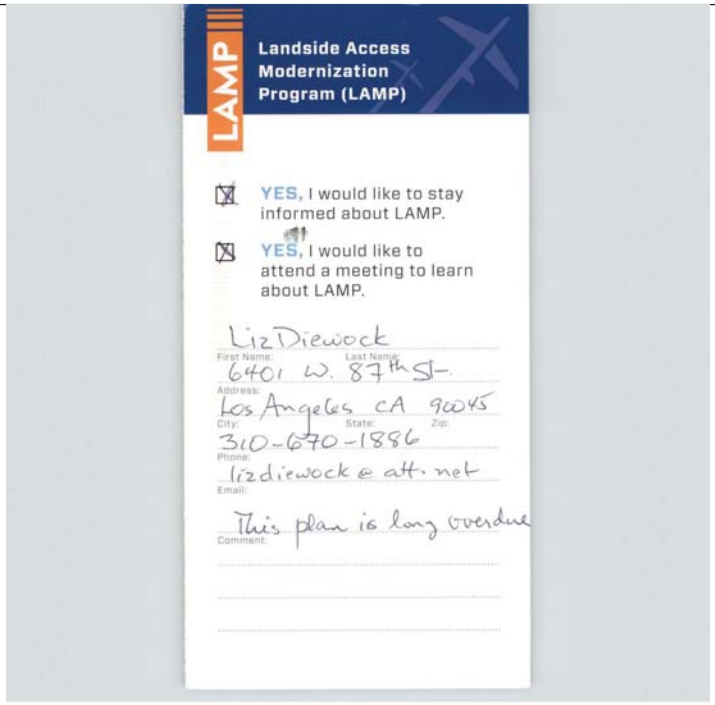
☐ YES, I would like to stay informed about LAMP.

☐ YES, I would like to attend a meeting to learn about LAMP.

First Na: Hugo Rojas
Address: 708 W. Arbor Vitae St.
Inglewood, CA 90301
City:
State:
Zip:
Phone: 310 403-1886
Email: hrojas2@gmail.com

Comment: 1. Issue: Freeway Recess.
2. Will there be new EXIT/ENTRANCE to FWY.
3. Eminent domain

LAMP-PC00038



Landside Access Modernization Program (LAMP)

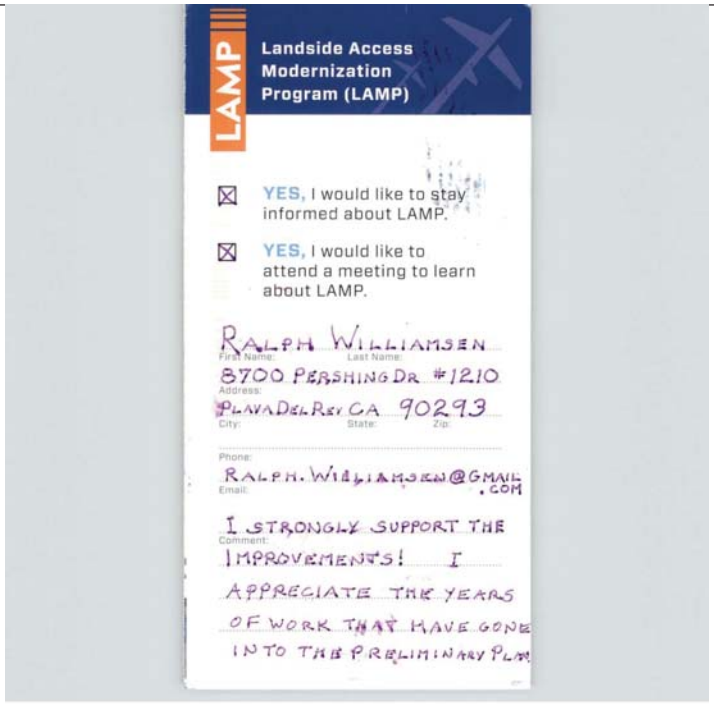
☒ YES, I would like to stay informed about LAMP.

☒ YES, I would like to attend a meeting to learn about LAMP.

First Name: Liz Last Name: Diewock
Address: 6401 W. 87th St.
City: Los Angeles State: CA Zip: 90045
Phone: 310-670-1886
Email: lizdiewock@att.net

Comment: This plan is long overdue

LAMP-PC00039



Landside Access Modernization Program (LAMP)

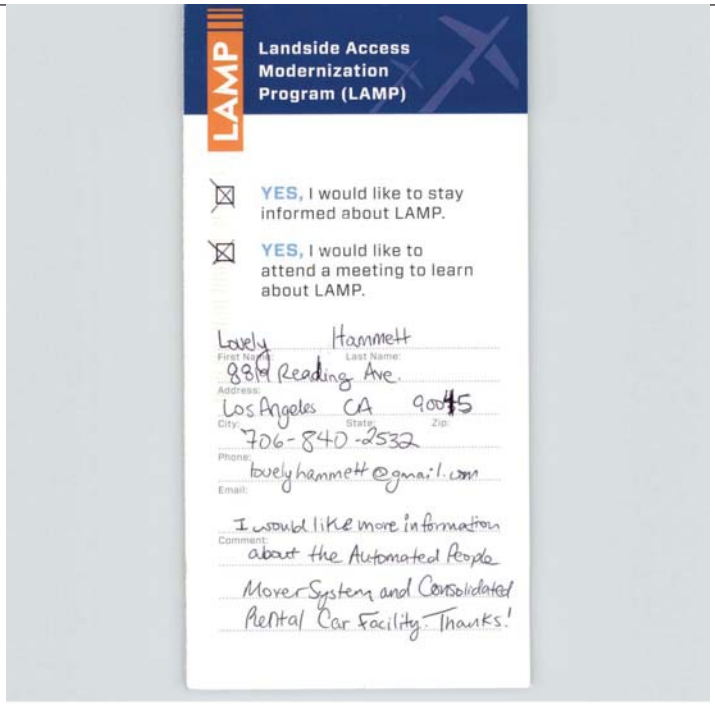
☒ YES, I would like to stay informed about LAMP.

☒ YES, I would like to attend a meeting to learn about LAMP.

First Name: RALPH Last Name: WILLIAMSEN
Address: 8700 PERSHING DR #1210
City: PLAYA DEL REY State: CA Zip: 90293
Phone:
Email: RALPH.WILLIAMSEN@GMAIL.COM

Comment: I STRONGLY SUPPORT THE IMPROVEMENTS! I APPRECIATE THE YEARS OF WORK THAT HAVE GONE INTO THE PRELIMINARY PLAN

LAMP-PC00040



Landside Access Modernization Program (LAMP)

☒ YES, I would like to stay informed about LAMP.

☒ YES, I would like to attend a meeting to learn about LAMP.

First Name: Lovely Last Name: Hammett
Address: 8814 Reading Ave.
City: Los Angeles State: CA Zip: 90045
Phone: 706-840-2532
Email: lovelyhammett@gmail.com

Comment: I would like more information about the Automated People Mover System and Consolidated Rental Car Facility. Thanks!

LAMP-PC00041

LAMP

Landside Access Modernization Program (LAMP)

☒ YES, I would like to stay informed about LAMP.

☒ YES, I would like to attend a meeting to learn about LAMP.

Richard SAuschuck
First Name: Last Name:
8160 Manitoba St 312
Address:
Playa Del Rey Cal 90293
City: State: Zip:
310-562-9061
Phone:
RSauschuck@CA.RR.com
Email:

Comment:
THANK you
were are the Car Rentals
Going to be?

LAMP-PC00042

LAMP

Landside Access Modernization Program (LAMP)

☑ YES, I would like to stay informed about LAMP.

☐ YES, I would like to attend a meeting to learn about LAMP.

Andrew Plukas
First Name: Last Name:
8705 Glider ave
Address:
L.A. Ca. 90045
City: State: Zip:
310 568 8831
Phone:
Andrew Plukas@att.net
Email:

Comment:
Put A Park where
your planning to Move
The Golf Coorse and
Just as Big!!!

LAMP-PC00043

LAMP

Landside Access Modernization Program (LAMP)

☒ YES, I would like to stay informed about LAMP.

☐ YES, I would like to attend a meeting to learn about LAMP.

Ellen Klein
First Name: Last Name:
6701 W 87th Place
Address:
Los Angeles CA 90045
City: State: Zip:
Phone:
ellen@calnative.com
Email:

Comment:
We like the program.
Please keep surrounding
community in mind as work
Starts

LAMP-PC00044

LAMP

Landside Access Modernization Program (LAMP)

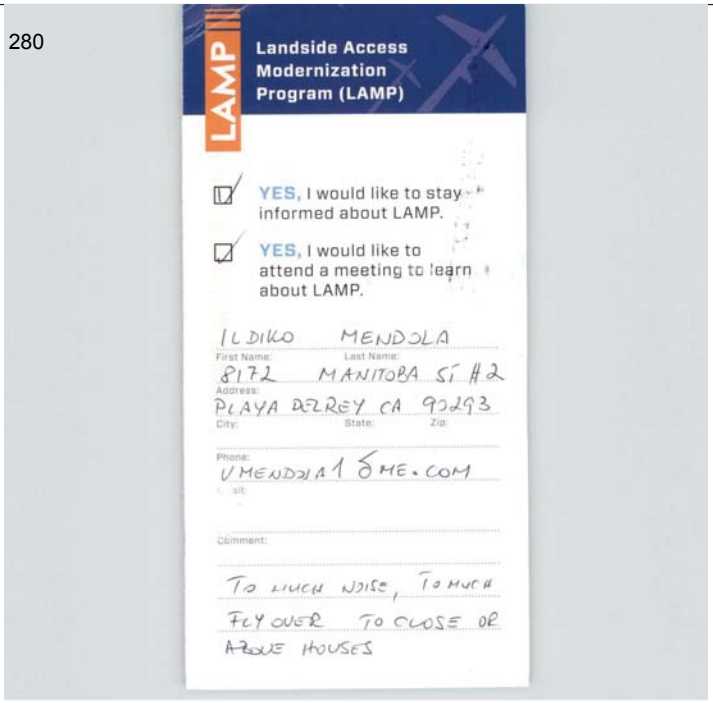
☒ YES, I would like to stay informed about LAMP.

☒ YES, I would like to attend a meeting to learn about LAMP.

m DEBRA RENO
First Name: Last Name:
8162 MANITOBA ST #313
Address:
Playa Del Rey CA 90293
City: State: Zip:
310 822 7210
Phone:
MORENO@EARTHLINK.NET
Email:

Comment:
Don't anyone listens to
locals - but would be good
to know inputs on POR &
Westchester as well as
Property Value Devaluations

LAMP-PC00045



LAMP
Landside Access Modernization Program (LAMP)

☑ YES, I would like to stay informed about LAMP.

☑ YES, I would like to attend a meeting to learn about LAMP.

First Name: ILDIKO Last Name: MENDOLA
Address: 8172 MANITOBA ST #2
City: PLAYA DEL REY State: CA Zip: 90293
Phone:
Email: IMENDOLA1@ME.COM

Comment:
TO MUCH NOISE, TO MUCH FLY OVER TO CLOSE OR ABOVE HOUSES

LAMP-PC00046

LAMP
Landside Access Modernization Program (LAMP)

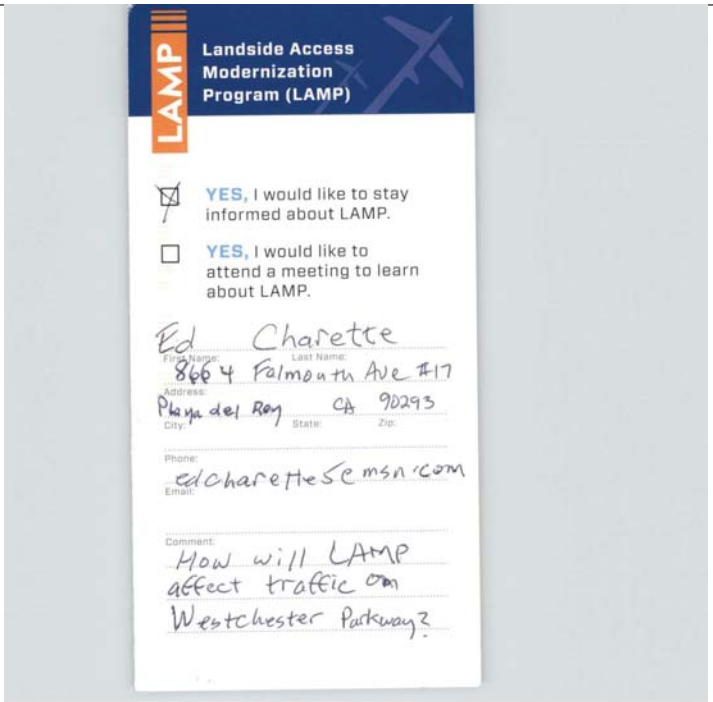
☒ YES, I would like to stay informed about LAMP.

☐ YES, I would like to attend a meeting to learn about LAMP.

First Name: Louis Last Name: Bergna
Address: 8128 Manitoba St. #112
City: Playa Del Rey State: CA Zip: 90293
Phone:
Email: louie.bergna@gmail.com

Comment:
Interested in the specific roadway improvements around the airport and when all the runway improvements will be complete

LAMP-PC00047



LAMP
Landside Access Modernization Program (LAMP)

☒ YES, I would like to stay informed about LAMP.

☐ YES, I would like to attend a meeting to learn about LAMP.

First Name: Ed Last Name: Charette
Address: 8664 Falmouth Ave #17
City: Playa del Rey State: CA Zip: 90293
Phone:
Email: edcharette5@msn.com

Comment:
How will LAMP affect traffic on Westchester Parkway?

LAMP-PC00048

LAMP
Landside Access Modernization Program (LAMP)

☒ YES, I would like to stay informed about LAMP.

☐ YES, I would like to attend a meeting to learn about LAMP.

First Name: Last Name:
MICHAEL B. MORRISON
Address: 8828 Pershing Dr, Unit 128
Playa Del Rey, CA 90293
City: State: Zip:
Phone: 424-225-0809
Email: MBMCMBMORRISON.COM

Comment:
I Support Any Effort To Improve LAX And Bring It up To World-Class Standards (SIN, ICN, HKG, NRT, etc.)

LAMP-PC00049

LAMP

Landside Access Modernization Program (LAMP)

☑ YES, I would like to stay informed about LAMP.

☐ YES, I would like to attend a meeting to learn about LAMP.

First Name: GABRIELA Last Name: PASTORES

Address: 8710 DELFORD AVE #101

City: LOS ANGELES State: CA Zip: 90045

Phone: 858 - 353 - 7709

Email: chick2cheek103@yahoo.com

Comment: I WORK IN TBIT / LAX. MOST PASSENGERS COMPLAIN ABOUT THE DIFFICULTY OF GETTING INTO LAX. THIS SHOULD BE ADDRESSED IMMEDIATELY.

LAMP-PC00050

LAMP

Landside Access Modernization Program (LAMP)

☐ YES, I would like to stay informed about LAMP.

☐ YES, I would like to attend a meeting to learn about LAMP.

First Name: Mel Last Name: Scott

Address: 8163 Red Lands St #5

City: Playa del Rey State: 90293 Zip:

Phone:

Email:

Comment: Do whatever it takes to resolve the traffic nightmares of LAX. I live 5 min away + am ready to use Burbank.

LAMP-PC00051

LAMP

Landside Access Modernization Program (LAMP)

☒ YES, I would like to stay informed about LAMP.

☐ YES, I would like to attend a meeting to learn about LAMP.

First Name: Ms. Belinda A. Brunelle

Address: 825 Lomita St
El Segundo, CA 90245

City: State: Zip:

Phone:

Email: belindabrunelle@gmail.com

Comment: The website info and drawings are extremely helpful.

LAMP-PC00052

CROWNE PLAZA
LOS ANGELES INTL AIRPORT

TAKE A MOMENT...

November 15, 2016

Los Angeles World Airports
Attention: Evelyn Quintanilla
One World Way, Room 218
Los Angeles CA 90045

Re: Comment Letter - Landside Access Modernization Program ("LAMP") EIR

Dear Los Angeles World Airports – Board of Airport Commissioners:

We are submitting this comment letter to Los Angeles World Airports ("LAWA") regarding the above-referenced Draft Environmental Impact Report ("DEIR") for the Landside Access Modernization Program ("LAMP").

The Crowne Plaza Los Angeles International Airport is located in the "Landside" area, at *5985 West Century Boulevard.*

We have concerns about and provide comments on the following issue:

Shuttle Issues:
We currently operate a shuttle into the Central Terminal Area ("CTA") to serve our customers and guests. Under the EIR with the implementation of "LAMP," it appears that we will no longer be allowed to pick up and drop off in the CTA, but instead will be limited to the Intermodal Transportation Facility West ("ITF West").

If the goal under LAMP implementation is to restrict vehicles within the CTA to reduce traffic congestion, it seems contrary to common sense that our shuttle buses - which hold scores of passengers - would be restricted from CTA access, while private cars, taxis, Lyft, Uber, limousines, which often carry only one or two passengers, would still be allowed access to the CTA.

Our comment and request is that LAWA reconsider this restriction to our shuttle access to the CTA under the LAMP implementation. Our shuttles are "aggregators" of passengers, whereas taxis, Lyft, Uber and limousines typically transport only one or two passengers per trip.

LOS ANGELES INTL AIRPORT
T. 310-642-7500 F. 310-417-3608 E. W. www.crowneplaza.com/lax-intlapt
A. 5985 West Century Boulevard, Los Angeles, CA, 90045-5463 USA

LAMP-PC00053

In the EIR's Table 17 of Appendix O of the Off-Airport Traffic Study, the table contains vehicle occupancy numbers during peak travel times that appear to be too low. Our shuttles are quite full during peak travel periods, despite what Table 17 reflects. Our comment and request is that LAWA re-examine these vehicle occupancy assumptions for shuttles during peak periods, and clarify or correct Table 17, which appears to be flawed.

The EIR indicates that private shuttles must *only* use the ITF West. Our comment and request is that private shuttles be allowed access to both of the ITFs, as well as to the CTA. If the goal is to reduce traffic congestion, then if one facility is full or congested, the shuttle buses should be allowed the flexibility of dropping off and picking up at any of these facilities.

Very truly yours,

Paul Gibbs
General Manager

L&R GROUP OF COMPANIES

NOV 17 2016

November 15, 2016

Los Angeles World Airports
Attention: Evelyn Quintanilla
One World Way, Room 218
Los Angeles CA 90045

Re: Comment Letter - Landside Access Modernization Program ("LAMP") EIR

Dear Los Angeles World Airports – Board of Airport Commissioners:

We are submitting this comment letter to Los Angeles World Airports ("LAWA") regarding the above-referenced Draft Environmental Impact Report ("DEIR") for the Landside Access Modernization Program ("LAMP").

Our properties are located in the "Landside" area, at the addresses listed below.

- WallyPark, 9700 Bellanca Avenue, Los Angeles, CA 90045
- Airport Center, 5959 West Century Blvd., Los Angeles, CA 90045
- Joe's Airport Parking, 6151 West Century Blvd., Los Angeles, CA 90045
- WallyPark Express, 9600 South Sepulveda Blvd., Los Angeles, CA 90045

We have concerns about and provide comments on these issues:

Shuttle Issues:
We currently operate a shuttle into the Central Terminal Area ("CTA") to serve our customers and guests. Under the EIR with the implementation of "LAMP," it appears that we will no longer be allowed to pick up and drop off in the CTA, but instead will be limited to the Intermodal Transportation Facility West ("ITF West").

If the goal under LAMP implementation is to restrict vehicles within the CTA to reduce traffic congestion, it seems contrary to common sense that our shuttle buses - which hold scores of passengers - would be restricted from CTA access, while private cars, taxis, Lyft, Uber, limousines, which often carry only one or two passengers, would still be allowed access to the CTA.

Our comment and request is that LAWA reconsider this restriction to our shuttle access to the CTA under the LAMP implementation. Our shuttles are "aggregators" of

990 W. 8th Street, Suite 600, Los Angeles, California 90017
www.tlrgc.com

L&R GROUP OF COMPANIES

passengers, whereas taxis, Lyft, Uber and limousines typically transport only one or two passengers per trip.

In the EIR's Table 17 of Appendix O of the Off-Airport Traffic Study, the table contains vehicle occupancy numbers during peak travel times that appear to be too low. Our shuttles are quite full during peak travel periods, despite what Table 17 reflects. Our comment and request is that LAWA re-examine these vehicle occupancy assumptions for shuttles during peak periods, and clarify or correct Table 17, which appears to be flawed.

The EIR indicates that private shuttles must *only* use the ITF West. Our comment and request is that private shuttles be allowed access to both of the ITFs, as well as to the CTA. If the goal is to reduce traffic congestion, then if one facility is full or congested, the shuttle buses should be allowed the flexibility of dropping off and picking up at any of these facilities.

Very truly yours,

Charles A. Bassett, Chief Strategic Development Officer
L & R Group of Companies

990 W. 8th Street, Suite 600, Los Angeles, California 90017
www.tlrgc.com

LAMP-PC00054

From: haydenkm89@gmail.com
To: LAX Stakeholder Liaison
Subject: Stakeholder Comment Submitted - Ref. No. 161129130558
Date: Tuesday, November 29, 2016 1:06:08 PM

This is to inform you that a comment form was submitted.

Reference No.:	161129130558
Date Submitted:	11/29/2016
From:	Hayden Milliron
Email:	haydenkm89@gmail.com
Company Name:	
Address:	
City:	
State:	
Zip Code:	0
Project Name:	General Comment
Other Comments:	I understand that for the Landside Access Modernization Program project, CEQA clearance is scheduled for Fourth Quarter 2016 and NEPA clearance is scheduled for Third Quarter 2017. When are acquisitions expected to begin for this project? If there is a better contact for this information, please let me know.

IP Address: 66.172.66.148

LAMP

Landside Access Modernization Program (LAMP)

☑ YES, I would like to stay informed about LAMP.

☐ YES, I would like to attend a meeting to learn about LAMP.

First Name: HELEN Last Name: CARO

Address: 616 W. WALNUT AVE.

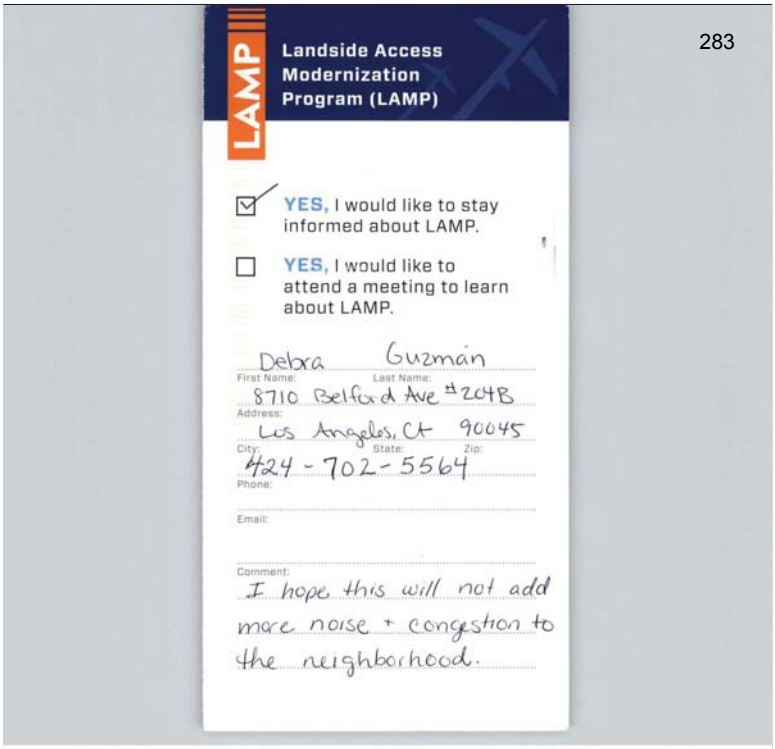
City: EL SEGUNDO State: CA Zip: 90245

Phone:

Email: HELENCARO@EMAIL.COM

Comment: HOW WILL THIS EFFECT/AFFECT EL SEGUNDO?

LAMP-PC00056



LAMP

Landside Access Modernization Program (LAMP)

☑ YES, I would like to stay informed about LAMP.

☐ YES, I would like to attend a meeting to learn about LAMP.

First Name: Debra Last Name: Guzman

Address: 8710 Belford Ave #204B

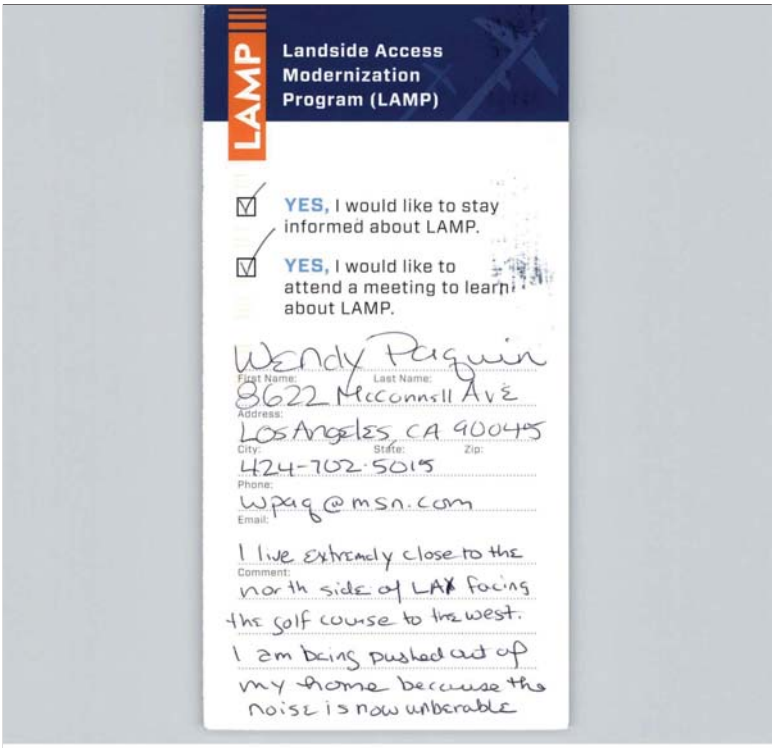
City: Los Angeles State: CA Zip: 90045

Phone: 424-702-5564

Email:

Comment: I hope this will not add more noise + congestion to the neighborhood.

LAMP-PC00057



LAMP

Landside Access Modernization Program (LAMP)

☑ YES, I would like to stay informed about LAMP.

☑ YES, I would like to attend a meeting to learn about LAMP.

First Name: Wendy Last Name: Paquin

Address: 8622 Mcconnell Ave

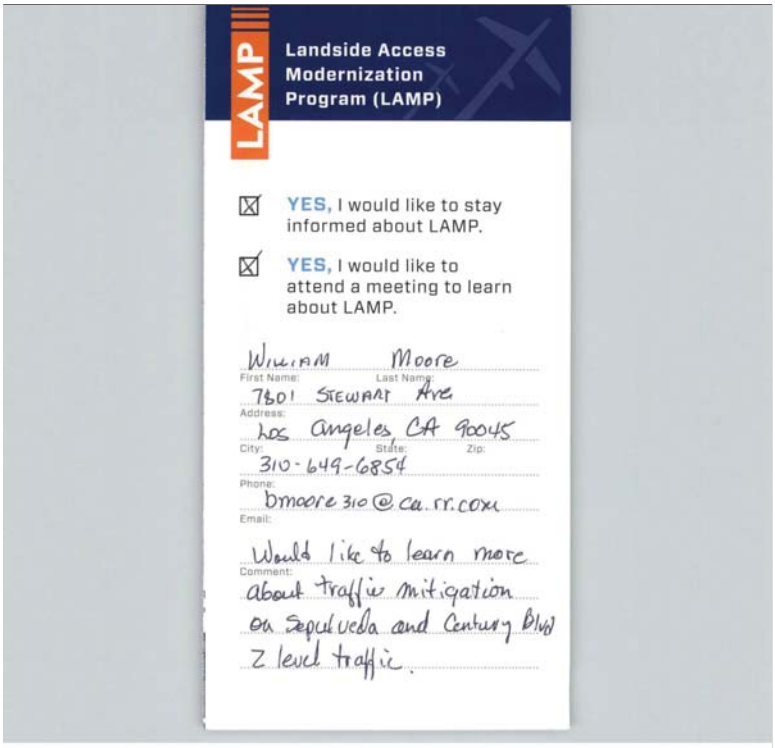
City: Los Angeles State: CA Zip: 90045

Phone: 424-702-5015

Email: wpaq@msn.com

Comment: I live extremely close to the north side of LAX facing the golf course to the west. I am being pushed out of my home because the noise is now unbearable

LAMP-PC00058



LAMP

Landside Access Modernization Program (LAMP)

☒ YES, I would like to stay informed about LAMP.

☒ YES, I would like to attend a meeting to learn about LAMP.

First Name: William Last Name: Moore

Address: 7801 Stewart Ave

City: Los Angeles State: CA Zip: 90045

Phone: 310-649-6854

Email: bmoore310@ca.rr.com

Comment: Would like to learn more about traffic mitigation on Sepulveda and Century Blvd Z level traffic.

LAMP-PC00059

Attachment 2

Additions and Corrections: Air Quality, Greenhouse Gas Emissions, and Human Health Risk Assessment

LAX Landside Access Modernization Project
Draft Environmental Impact Report
Appendix F – *Attachment F.1*

Air Quality and Greenhouse Gas Emissions

Air Quality and Greenhouse Gas Assessment Files

Provided by CDM Smith

September 2016 *(as revised February 2017)*

F.1.1 Construction – Criteria Pollutant and Greenhouse Gas Emissions

F.1.2 Operations – Criteria Pollutant and Greenhouse Gas Emissions

F.1.3 Construction Concentrations – Criteria Pollutants

F.1.4 Operation Concentrations – Criteria Pollutants

F.1.5 Construction Concentrations – Toxic Air Contaminants

F.1.6 Operation Concentrations – Toxic Air Contaminants

Attachment F.1.1

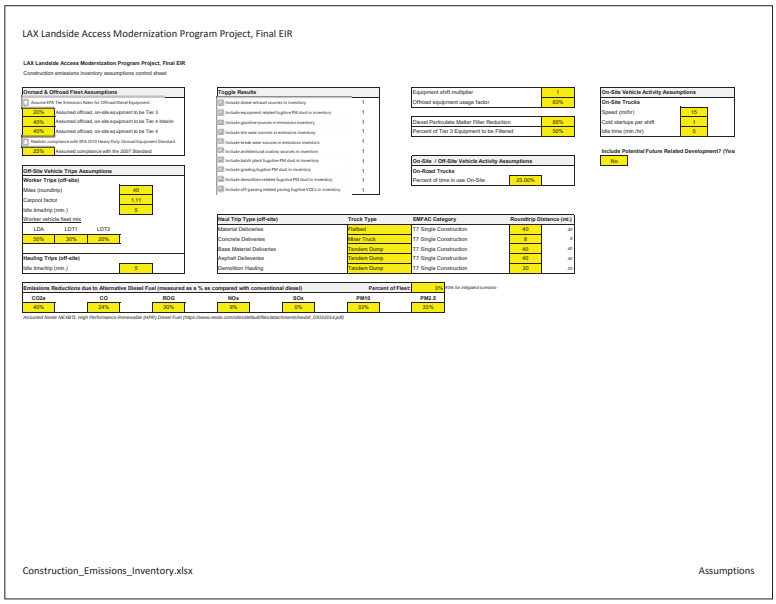
Construction – Criteria Pollutant and Greenhouse Gas Emissions

- Assumptions
- Master Construction Schedule
- Project Component Data
- Equipment Data
- Pollutants – CO Emission Factors
  - Without Mitigation
  - With Mitigation
- Pollutants – CO2e Emission Factors
  - Without Mitigation
  - With Mitigation
- Pollutants – NOx Emission Factors
  - Without Mitigation
  - With Mitigation
- Pollutants – PM2.5 Emission Factors
  - Without Mitigation
  - With Mitigation
- Pollutants – PM10 Emission Factors
  - Without Mitigation
  - With Mitigation
- Pollutants – ROG Emission Factors
  - Without Mitigation
  - With Mitigation
- Pollutants – SOx Emission Factors
  - Without Mitigation
  - With Mitigation
- Fugitive Dust Emissions
  - Emissions due to Demolition
  - Emissions due to Equipment
  - Emissions due to Grading
  - *Emissions due to Batching*
- Fugitive VOC Emissions due to Paving and Coating
- Summary

Attachment F.*1*.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions

- Assumptions



LAX Landside Access Modernization Program Project, Final EIR

LAX Landside Access Modernization Program Project, Final EIR

Construction emissions inventory assumptions control sheet

Onroad & Offroad Fleet Assumptions

Assume EPA Tier Emissions Rates for Offroad Diesel Equipment	
20%	Assumed offroad, on-site equipment to be Tier 3
40%	Assumed offroad, on-site equipment to be Tier 4 Interim
40%	Assumed offroad, on-site equipment to be Tier 4
Realistic compliance with SPA 2010 Heavy Duty Onroad Equipment Standard.	
25%	Assumed compliance with the 2007 Standard

Toggle Results

Include diesel exhaust sources in inventory	1
Include equipment related fugitive PM dust in inventory	1
Include gasoline sources in emissions inventory	1
Include tire wear sources in emissions inventory	1
Include break wear sources in emissions inventory	1
Include architectural coating sources in inventory	1
Include batch plant fugitive PM dust in inventory	1
Include grading fugitive PM dust in inventory	1
Include demolition related fugitive PM dust in inventory	1
Include off-gassing related paving fugitive VOCs in inventory	1

Equipment shift multiplier	1
Offroad equipment usage factor	83%
Diesel Particulate Matter Filter Reduction	85%
Percent of Tier 3 Equipment to be Filtered	50%

On-Site Vehicle Activity Assumptions

On-Site Trucks

Speed (mi/hr)	15
Cold startups per shift	1
Idle time (min./hr)	5

Include Potential Future Related Development? (Yes

No

Off-Site Vehicle Trips Assumptions

Worker Trips (off-site)

Miles (roundtrip)	40
Carpool factor	1.11
Idle time/trip (min.)	5

Worker vehicle fleet mix

LDA	LDT1	LDT2
50%	30%	20%

Hauling Trips (off-site)

Idle time/trip (min.)	5

On-Site / Off-Site Vehicle Activity Assumptions

On-Road Trucks

Percent of time in use On-Site	25.00%

Haul Trip Type (off-site)	Truck Type	EMFAC Category	Roundtrip Distance (mi.)	
Material Deliveries	Flatbed	T7 Single Construction	40	40
Concrete Deliveries	Mixer Truck	T7 Single Construction	8	8
Base Material Deliveries	Tandem Dump	T7 Single Construction	40	40
Asphalt Deliveries	Tandem Dump	T7 Single Construction	40	40
Demolition Hauling	Tandem Dump	T7 Single Construction	20	20

Emissions Reductions due to Alternative Diesel Fuel (measured as a % as compared with conventional diesel)

Percent of Fleet: 0% (50% for mitigated scenario)

CO2e	CO	ROG	NOx	SOx	PM10	PM2.5
40%	24%	30%	9%	0%	33%	33%

Assumed Neste NEXBTL High Performance Renewable (HVH) Diesel Fuel (https://www.neste.com/sites/default/files/attachments/neste_030320014.pdf)

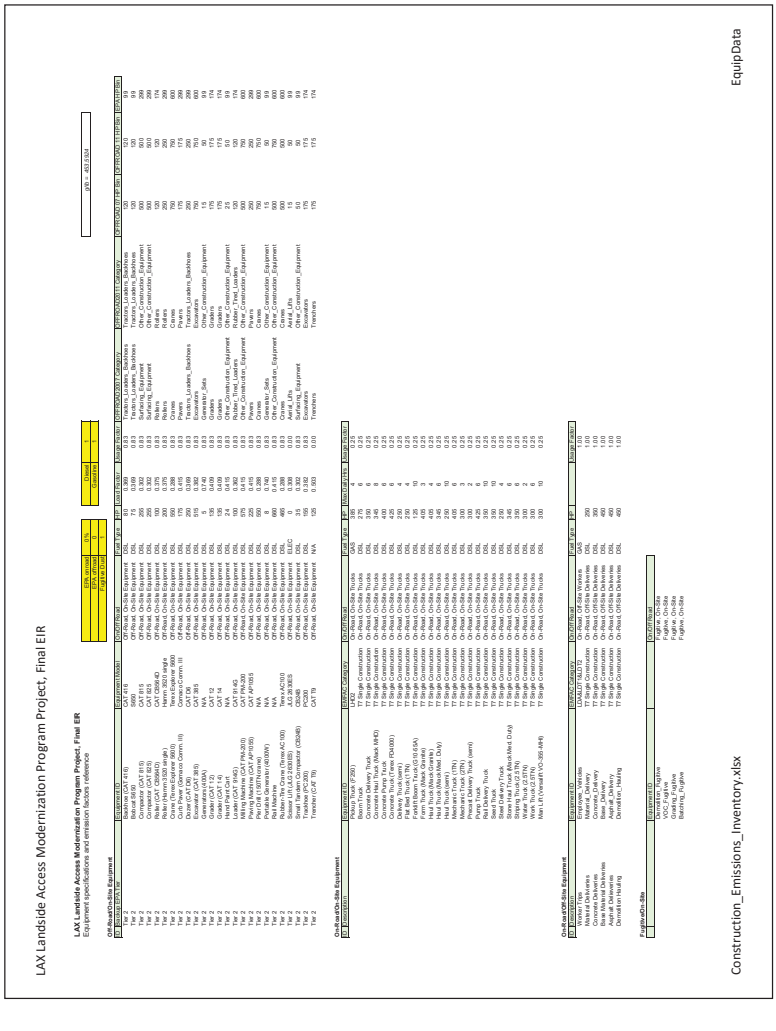
Construction_Emissions_Inventory.xlsx

Assumptions

Attachment F.*1*.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions

- Equipment Data



LAX Landside Access Modernization Program Project, Final EIR

LAX Landside Access Modernization Program Project, Final EIR

Equipment specifications and emission factors reference.

	ERA Annual	ERA Summer	ERA Winter
ITL	1	1	1
Diesel	1	1	1

job = 4573.63

On-Road/On-Site Equipment

ID	Description	Equipment Class	On-Off Road	Fuel Type	HP	Base Emfac	Model Year Emfac	Off-Road Equipment Category	Off-Road HP Bin	Off-Road Default HP	Off-Road Default Fuel Type
Typ 2	Backhoe (CAT 416)	Off-Road, On-Site Equipment	DSL	91	0.369	0.83	Tractors_Loaders_Backhoes	Tractors_Loaders_Backhoes	50	93	
Typ 2	Bar Bender	Off-Road, On-Site Equipment	DSL	33	0.369	0.83	Tractors_Loaders_Backhoes	Tractors_Loaders_Backhoes	50	33	
Typ 2	Compactor (CAT 815)	Off-Road, On-Site Equipment	DSL	295	0.382	0.83	Surfacing_Equipment	Other_Construction_Equipment	900	299	
Typ 2	Compactor (CAT 825)	Off-Road, On-Site Equipment	DSL	295	0.382	0.83	Surfacing_Equipment	Other_Construction_Equipment	900	299	
Typ 2	Concrete Saw (CAT 42)	Off-Road, On-Site Equipment	DSL	103	0.382	0.83	Paving	Cement_Mortar_Mixers	150	159	
Typ 2	Roller (Hamm 3303 single)	Off-Road, On-Site Equipment	DSL	93	0.375	0.83	Rollers	Rollers	250	99	
Typ 2	Roller (Hamm 3303 single)	Off-Road, On-Site Equipment	DSL	300	0.375	0.83	Rollers	Rollers	250	299	
Typ 2	Curb Paver (Gomaco Comm. II)	Off-Road, On-Site Equipment	DSL	175	0.415	0.83	Pavers	Pavers	175	299	
Typ 2	Curb Paver (Gomaco Comm. III)	Off-Road, On-Site Equipment	DSL	375	0.415	0.83	Pavers	Pavers	175	299	
Typ 2	Dozer (CAT D7)	Off-Road, On-Site Equipment	DSL	410	0.369	0.83	Tractors_Loaders_Backhoes	Tractors_Loaders_Backhoes	750	299	
Typ 2	Excavator (CAT 365)	Off-Road, On-Site Equipment	DSL	515	0.382	0.83	Excavators	Excavators	750	600	
Typ 2	Excavator (CAT 385)	Off-Road, On-Site Equipment	DSL	515	0.382	0.83	Excavators	Excavators	750	600	
Typ 2	Grader (CAT 12)	Off-Road, On-Site Equipment	DSL	135	0.439	0.83	Graders	Graders_Cars	175	174	
Typ 2	Grader (CAT 14)	Off-Road, On-Site Equipment	DSL	135	0.439	0.83	Graders	Graders	175	174	
Typ 2	Man Lift	Off-Road, On-Site Equipment	DSL	36	0.419	0.83	Other_Construction_Equipment	Other_Construction_Equipment	175	174	
Typ 2	Loader (CAT 938G)	Off-Road, On-Site Equipment	DSL	190	0.362	0.83	Rubber_Tired_Loaders	Rubber_Tired_Loaders	500	174	
Typ 2	Loader (CAT 950GII)	Off-Road, On-Site Equipment	DSL	190	0.362	0.83	Other_Construction_Equipment	Other_Construction_Equipment	500	299	
Typ 2	Paving Machine (CAT AP1055)	Off-Road, On-Site Equipment	DSL	225	0.415	0.83	Pavers	Pavers	250	299	
Typ 2	Paving Machine (CAT AP655)	Off-Road, On-Site Equipment	DSL	225	0.415	0.83	Pavers	Pavers	250	299	
Typ 2	Portable Generator (40-50kW)	Off-Road, On-Site Equipment	DSL	8	0.740	0.83	Generator_Sets	Other_Construction_Equipment	15	99	
Typ 2	Portable Generator (40-50kW)	Off-Road, On-Site Equipment	DSL	8	0.740	0.83	Generator_Sets	Other_Construction_Equipment	15	99	
Typ 2	Rubber Tire Crane (Terex AC100)	Off-Road, On-Site Equipment	DSL	460	0.308	0.83	Other_Construction_Equipment	Cranes	750	600	
Typ 2	Rubber Tire Crane (Terex AC100)	Off-Road, On-Site Equipment	DSL	460	0.308	0.83	Cranes	Cranes	750	600	
Typ 2	Scissor Lift (JLG 2630ES)	Off-Road, On-Site Equipment	ELEC	11	0.308	0.00	Aerial_Lifts	Aerial_Lifts	15	93	
Typ 2	Scissor Lift (JLG 4394RS)	Off-Road, On-Site Equipment	DSL	31	0.308	0.83	Aerial_Lifts	Aerial_Lifts	15	93	
Typ 2	Trackhoe (PC200)	Off-Road, On-Site Equipment	DSL	195	0.382	0.83	Excavators	Excavators	175	174	
Typ 2	Trackhoe (CAT 70)	Off-Road, On-Site Equipment	NA	100	0.183	0.00	Trenchers	Trenchers	175	174	

On-Road/On-Site Equipment

ID	Description	Equipment Class	Vehicle Category	On-Off Road	Fuel Type	Model Year	HP	Relative Factor	Usage Factor
	Rubber Stack (F250)	LHD2	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	330	0.25	
	Boom Truck	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	375	6	0.25	
	Concrete Delivery Truck	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	375	6	0.25	
	Concrete Haul Truck (Mack MHD)	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	345	6	0.25	
	Concrete Pump Truck	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	425	6	0.25	
	Concrete Truck (Terex FD400)	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	425	6	0.25	
	Crane Truck	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	425	6	0.25	
	Flat Bed Truck (1TN)	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	290	4	0.25	
	Forklift Boom Truck (GH1454)	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	290	4	0.25	
	Haul Truck (Mack Granite)	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	425	10	0.25	
	Haul Truck (Mack MP8)	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	405	4	0.25	
	Haul Truck (Volvo)	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	405	4	0.25	
	Mechanic Truck (1TN)	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	290	10	0.25	
	Mechanic Truck (2TN)	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	300	6	0.25	
	Pickup Truck (Heavy Duty) (sem)	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	300	3	0.25	
	Pump Truck	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	425	2	0.25	
	Rail Delivery Truck	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	350	10	0.25	
	Skip Loader	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	350	10	0.25	
	Steel Delivery Truck	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	290	4	0.25	
	Stringing Truck (Mack Granite Mid Duty)	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	425	6	0.25	
	Stringing Truck (2 STN)	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	350	6	0.25	
	Stringing Truck (3 STN)	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	350	6	0.25	
	Water Truck (2 STN)	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	300	6	0.25	
	Work Truck (2 STN)	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	300	6	0.25	
	Man Lift (Versalift VO-38-AH)	T7 Single Construction	On-Road, On-Site Trucks	DSL	2018	330	10	0.25	

On-Road/Off-Site Equipment

ID	Description	Equipment Class	Vehicle Category	On-Off Road	Fuel Type	Model Year	HP	Relative Factor	Usage Factor
	Material Deliveries	T7 Tractor	T7 Single Construction	On-Road, Off-Site Delveries	DSL	2018	450	1.00	
	Material_Delivery	T7 Tractor	T7 Single Construction	On-Road, Off-Site Delveries	DSL	2018	450	1.00	
	Base Material Deliveries	T7 Tractor	T7 Single Construction	On-Road, Off-Site Delveries	DSL	2018	450	1.00	
	Asphalt Deliveries	T7 Tractor	T7 Single Construction	On-Road, Off-Site Delveries	DSL	2018	450	1.00	
	Demolition Hauling	T7 Tractor	T7 Single Construction	On-Road, Off-Site Delveries	DSL	2018	450	1.00	

Fugitive-On-Site

ID	Description	Equipment Class	On-Off Road
	Excavation_Fugitive		Fugitive On-Site
	Off-Road_Fugitive		Fugitive On-Site
	Grading_Fugitive		Fugitive On-Site
	Backhoe_Fugitive		Fugitive On-Site

EquipData

Construction_Emissions_Inventory.xlsx

LAX Landside Access Modernization Program Project, Final EIR
Equipment specifications and emission factors reference

Emissions Reduction from Alternative Fuel: 22%

OFFROAD2007

Off-Road/On-Site Equipment

ID	Backup EPA Tier	EquipmentID	CO Emission Factors (lb/hr) 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Tier 2	Backhoe (CAT 416)	0.1600	0.1592	0.1585	0.1580	0.1576	0.1574	0.1572	0.1571	0.1570	0.1569	0.1569	0.1568	0.1568	0.1568
	Tier 2	Bobcat S650	0.1500	0.1493	0.1486	0.1481	0.1478	0.1475	0.1474	0.1473	0.1472	0.1471	0.1471	0.1470	0.1470	0.1470
	Tier 2	Compactor (CAT 815)	0.1484	0.1427	0.1379	0.1338	0.1302	0.1271	0.1244	0.1220	0.1199	0.1182	0.1167	0.1155	0.1146	0.1139
	Tier 2	Compactor (CAT 825)	0.1484	0.1427	0.1379	0.1338	0.1302	0.1271	0.1244	0.1220	0.1199	0.1182	0.1167	0.1155	0.1146	0.1139
	Tier 2	Roller (CAT CB564D)	0.2048	0.2035	0.2022	0.2010	0.1999	0.1989	0.1982	0.1975	0.1971	0.1967	0.1965	0.1963	0.1961	0.1959
	Tier 2	Roller (Hamm 3520 single)	0.1348	0.1320	0.1298	0.1278	0.1261	0.1246	0.1233	0.1222	0.1213	0.1205	0.1198	0.1193	0.1188	0.1184
	Tier 2	Crane (Terex Explorer 5800)	0.3037	0.2926	0.2830	0.2750	0.2684	0.2630	0.2586	0.2557	0.2535	0.2519	0.2506	0.2495	0.2486	0.2480
	Tier 2	Curb Paver (Gomaco Comm. III)	0.3537	0.3527	0.3519	0.3512	0.3505	0.3500	0.3494	0.3489	0.3485	0.3481	0.3477	0.3474	0.3471	0.3468
	Tier 2	Dozer (CAT D6)	0.1533	0.1522	0.1513	0.1505	0.1499	0.1494	0.1489	0.1486	0.1482	0.1480	0.1478	0.1476	0.1475	0.1475
	Tier 2	Excavator (CAT 385)	0.3264	0.3214	0.3173	0.3147	0.3128	0.3114	0.3102	0.3092	0.3084	0.3078	0.3075	0.3073	0.3072	0.3072
	Tier 2	Generators (400A)	0.0189	0.0188	0.0188	0.0187	0.0186	0.0186	0.0186	0.0185	0.0185	0.0185	0.0184	0.0184	0.0184	0.0184
	Tier 2	Grader (CAT 12)	0.2651	0.2649	0.2646	0.2644	0.2642	0.2640	0.2638	0.2636	0.2635	0.2634	0.2633	0.2633	0.2633	0.2633
	Tier 2	Grader (CAT 14)	0.2651	0.2649	0.2646	0.2644	0.2642	0.2640	0.2638	0.2636	0.2635	0.2634	0.2633	0.2633	0.2633	0.2633
	Tier 2	Hand Paint Cart	0.0335	0.0335	0.0335	0.0335	0.0335	0.0335	0.0335	0.0335	0.0335	0.0335	0.0335	0.0335	0.0335	0.0335
	Tier 2	Loader (CAT 914G)	0.2224	0.2012	0.2002	0.1992	0.1983	0.1975	0.1969	0.1964	0.1960	0.1957	0.1955	0.1954	0.1952	0.1951
	Tier 2	Milling Machine (CAT PM-200)	0.3671	0.3630	0.3601	0.3580	0.3564	0.3550	0.3540	0.3533	0.3528	0.3526	0.3525	0.3526	0.3526	0.3526
	Tier 2	Paving Machine (CAT AP1055)	0.2023	0.1956	0.1897	0.1845	0.1800	0.1763	0.1731	0.1703	0.1679	0.1659	0.1641	0.1625	0.1610	0.1598
	Tier 2	Per Drill (150TN crane)	0.3037	0.2926	0.2830	0.2750	0.2684	0.2630	0.2586	0.2557	0.2535	0.2519	0.2506	0.2495	0.2486	0.2480
	Tier 2	Portable Generator (400DW)	0.0303	0.0301	0.0300	0.0299	0.0298	0.0297	0.0297	0.0296	0.0296	0.0295	0.0295	0.0295	0.0295	0.0295
	Tier 2	Rail Machine	0.4214	0.4167	0.4134	0.4110	0.4090	0.4075	0.4064	0.4055	0.4050	0.4047	0.4047	0.4047	0.4047	0.4048
	Tier 2	Rubber-Tire Crane (Terex AC100)	0.2568	0.2474	0.2393	0.2325	0.2269	0.2224	0.2188	0.2161	0.2143	0.2130	0.2119	0.2109	0.2102	0.2097
	Tier 2	Scissor Lift (JLG 2630ES)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Tier 2	Small Tandem Compactor (CB24B)	0.0777	0.0760	0.0744	0.0729	0.0715	0.0703	0.0691	0.0682	0.0674	0.0667	0.0662	0.0657	0.0654	0.0650
	Tier 2	Trackhoe (PC200)	0.2857	0.2854	0.2853	0.2853	0.2853	0.2854	0.2854	0.2854	0.2854	0.2854	0.2855	0.2855	0.2855	0.2855
	Tier 2	Trencher (CAT T9)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

EMFAC2014

On-Road/On-Site Equipment

ID	Description	EquipmentID	CO Emission Factors (lb/hr) 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
		Pickup Truck (F250)	0.0206	0.0182	0.0162	0.0144	0.0130	0.0118	0.0109	0.0103	0.0098	0.0094	0.0090	0.0087	0.0085	0.0083
		Boom Truck	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106
		Concrete Delivery Truck	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106
		Concrete Haul Truck (Mack MHD)	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106
		Concrete Pump Truck	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106
		Concrete Truck (Terex FD4000)	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106
		Delivery Truck (semi)	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106
		Flat Bed Truck (1TN)	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106
		Forklift Boom Truck (G10-55A)	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106
		Form Truck (Mack Granite)	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106
		Haul Truck (Mack Granite)	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106
		Haul Truck (Mack Med. Duty)	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106
		Haul Truck (semi)	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106
		Mechanic Truck (1TN)	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106
		Mechanic Truck (2TN)	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106
		Precast Delivery Truck (semi)	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106
		Pump Truck	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106
		Rail Delivery Truck	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106
		Seal Truck	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106
		Steel Delivery Truck	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106
		Stone Haul Truck (Mack Med. Duty)	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106
		Striping Truck (2.5TN)	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106
		Water Truck (2.5TN)	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106
		Work Truck (2.5TN)	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106
		Man Lift (Versalift VO-355-MHI)	0.0158	0.0129	0.0126	0.0112	0.0113	0.0113	0.0102	0.0102	0.0103	0.0104	0.0105	0.0105	0.0106	0.0106

EMFAC2014

On-Road/Off-Site Equipment

ID	Description	EquipmentID	CO Emission Factors (lb/mi) 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Worker Trips	Employee_Vehicles	0.0036	0.0031	0.0028	0.0026	0.0024	0.0022	0.0020	0.0019	0.0018	0.0016	0.0015	0.0015	0.0014	0.0013
	Material Deliveries	Material_Delivery	0.0014	0.0010	0.0009	0.0008	0.0008	0.0008	0.0006	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007
	Concrete Deliveries	Concrete_Delivery	0.0017	0.0012	0.0012	0.0009	0.0009	0.0009	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007
	Base Material Deliveries	Base_Delivery	0.0014	0.0010	0.0009	0.0008	0.0008	0.0008	0.0006	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007
	Asphalt Deliveries	Asphalt_Delivery	0.0014	0.0010	0.0009	0.0008	0.0008	0.0008	0.0006	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007
	Demolition Hauling	Demolition_Hauling	0.0014	0.0011	0.0010	0.0008	0.0008	0.0008	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007

Attachment F.1.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions

- Pollutants – CO Emission Factors
  - Without Mitigation
  - With Mitigation

Attachment F.1.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions

- Pollutants – CO2e Emission Factors
  - Without Mitigation
  - With Mitigation

LAX Landside Access Modernization Program Project, Final EIR

LAX Landside Access Modernization Program Project, Final EIR
Equipment specifications and emission factors reference

Emissions Reduction from Alternative Fuel: 0%

OFFROAD2007

Off-Road/On-Site Equipment

ID	Backup EPA Tier	EquipmentID	CO Emission Factors (lb/hr) 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Tier 2	Backhoe (CAT 416)	0.2041	0.2031	0.2022	0.2015	0.2010	0.2007	0.2005	0.2004	0.2003	0.2002	0.2001	0.2000	0.2000	0.2000
	Tier 2	Bobcat S650	0.1913	0.1904	0.1896	0.1889	0.1885	0.1882	0.1880	0.1879	0.1878	0.1877	0.1876	0.1875	0.1875	0.1875
	Tier 2	Compactor (CAT 815)	0.1892	0.1821	0.1759	0.1707	0.1661	0.1621	0.1587	0.1556	0.1530	0.1507	0.1489	0.1474	0.1462	0.1452
	Tier 2	Compactor (CAT 825)	0.1892	0.1821	0.1759	0.1707	0.1661	0.1621	0.1587	0.1556	0.1530	0.1507	0.1489	0.1474	0.1462	0.1452
	Tier 2	Roller (CAT CB564D)	0.2612	0.2595	0.2579	0.2564	0.2550	0.2538	0.2528	0.2520	0.2514	0.2509	0.2506	0.2503	0.2501	0.2499
	Tier 2	Roller (Hamm 3520 single)	0.1719	0.1684	0.1655	0.1630	0.1609	0.1589	0.1573	0.1559	0.1547	0.1537	0.1528	0.1521	0.1515	0.1510
	Tier 2	Crane (Terex Explorer 5800)	0.3874	0.3732	0.3610	0.3507	0.3424	0.3355	0.3301	0.3261	0.3233	0.3214	0.3196	0.3182	0.3171	0.3163
	Tier 2	Curb Paver (Gomaco Comm. III)	0.4511	0.4499	0.4489	0.4479	0.4471	0.4464	0.4457	0.4451	0.4445	0.4440	0.4435	0.4431	0.4427	0.4424
	Tier 2	Dozer (CAT D6)	0.1956	0.1942	0.1930	0.1920	0.1912	0.1905	0.1900	0.1895	0.1891	0.1887	0.1885	0.1883	0.1881	0.1881
	Tier 2	Excavator (CAT 385)	0.4164	0.4099	0.4050	0.4014	0.3990	0.3972	0.3957	0.3944	0.3934	0.3927	0.3922	0.3919	0.3919	0.3919
	Tier 2	Generators (400A)	0.0241	0.0240	0.0239	0.0238	0.0238	0.0237	0.0237	0.0236	0.0236	0.0236	0.0235	0.0235	0.0235	0.0235
	Tier 2	Grader (CAT 12)	0.3382	0.3378	0.3375	0.3372	0.3369	0.3367	0.3364	0.3362	0.3360	0.3359	0.3359	0.3358	0.3358	0.3358
	Tier 2	Grader (CAT 14)	0.3382	0.3378	0.3375	0.3372	0.3369	0.3367	0.3364	0.3362	0.3360	0.3359	0.3359	0.3358	0.3358	0.3358
	Tier 2	Hand Paint Cart	0.0427	0.0427	0.0427	0.0427	0.0427	0.0427	0.0427	0.0427	0.0427	0.0427	0.0427	0.0427	0.0427	0.0427
	Tier 2	Loader (CAT 914G)	0.2982	0.2967	0.2953	0.2941	0.2930	0.2920	0.2911	0.2905	0.2900	0.2896	0.2894	0.2892	0.2890	0.2889
	Tier 2	Milling Machine (CAT PM-200)	0.4683	0.4630	0.4594	0.4567	0.4545	0.4528	0.4516	0.4506	0.4500	0.4497	0.4497	0.4497	0.4498	0.4498
	Tier 2	Paving Machine (CAT AP1055)	0.2581	0.2495	0.2419	0.2353	0.2296	0.2249	0.2207	0.2172	0.2142	0.2116	0.2093	0.2072	0.2054	0.2038
	Tier 2	Per Drill (150TN crane)	0.3874	0.3732	0.3610	0.3507	0.3424	0.3355	0.3301	0.3261	0.3233	0.3214	0.3196	0.3182	0.3171	0.3163
	Tier 2	Portable Generator (400DW)	0.0386	0.0384	0.0383	0.0382	0.0380	0.0379	0.0379	0.0378	0.0377	0.0377	0.0376	0.0376	0.0376	0.0376
	Tier 2	Rail Machine	0.5375	0.5315	0.5273	0.5242	0.5217	0.5197	0.5183	0.5172	0.5165	0.5162	0.5161	0.5162	0.5163	0.5163
	Tier 2	Rubber-Tire Crane (Terex AC100)	0.3275	0.3155	0.3052	0.2965	0.2895	0.2836	0.2791	0.2757	0.2734	0.2717	0.2702	0.2691	0.2681	0.2674
	Tier 2	Scissor Lift (JLG 2630ES)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Tier 2	Small Tandem Compactor (CB24B)	0.0981	0.0969	0.0948	0.0929	0.0912	0.0896	0.0882	0.0870	0.0859	0.0851	0.0844	0.0838	0.0834	0.0830
	Tier 2	Trackhoe (PC200)	0.3644	0.3641	0.3639	0.3639	0.3639	0.3640	0.3640	0.3641	0.3641	0.3641	0.3641	0.3642	0.3642	0.3642
	Tier 2	Trencher (CAT T9)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

EMFAC2014

On-Road/On-Site Equipment

ID	Description	EquipmentID	CO Emission Factors (lb/hr) 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
		Pickup Truck (F250)	0.0206	0.0182	0.0162	0.0144	0.0130	0.0118	0.0109	0.0103	0.0098	0.0094	0.0090	0.0087	0.0085	0.0083
		Boom Truck	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135
		Concrete Delivery Truck	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135
		Concrete Haul Truck (Mack MHD)	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135
		Concrete Pump Truck	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135
		Concrete Truck (Terex FD4000)	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135
		Delivery Truck (semi)	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135
		Flat Bed Truck (1TN)	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135
		Forklift Boom Truck (G 10-55A)	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135
		Form Truck (Mack Granite)	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135
		Haul Truck (Mack Granite)	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135
		Haul Truck (Mack Med. Duty)	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135
		Haul Truck (semi)	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135
		Mechanic Truck (1TN)	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135
		Mechanic Truck (2TN)	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135
		Precast Delivery Truck (semi)	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135
		Pump Truck	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135
		Rail Delivery Truck	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135
		Seal Truck	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135
		Steel Delivery Truck	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135
		Stone Haul Truck (Mack Med. Duty)	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135
		Striping Truck (2.5TN)	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135
		Water Truck (2.5TN)	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135
		Work Truck (2.5TN)	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135
		Man Lift (Versalift VO-355-MHI)	0.0202	0.0165	0.0161	0.0143	0.0144	0.0145	0.0130	0.0131	0.0132	0.0133	0.0133	0.0134	0.0135	0.0135

EMFAC2014

On-Road/Off-Site Equipment

ID	Description	EquipmentID	CO Emission Factors (lb/mi) 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Worker Trips	Employee_Vehicles	0.0036	0.0031	0.0028	0.0026	0.0024	0.0022	0.0020	0.0019	0.0018	0.0016	0.0015	0.0015	0.0014	0.0013
	Material Deliveries	Material_Delivery	0.0017	0.0013	0.0012	0.0010	0.0010	0.0010	0.0008	0.0008	0.0008	0.0009	0.0009	0.0009	0.0009	0.0009
	Concrete Deliveries	Concrete_Delivery	0.0021	0.0016	0.0015	0.0011	0.0011	0.0011	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009
	Base Material Deliveries	Base_Delivery	0.0017	0.0013	0.0012	0.0010	0.0010	0.0010	0.0008	0.0008	0.0008	0.0009	0.0009	0.0009	0.0009	0.0009
	Asphalt Deliveries	Asphalt_Delivery	0.0017	0.0013	0.0012	0.0010	0.0010	0.0010	0.0008	0.0008	0.0008	0.0009	0.0009	0.0009	0.0009	0.0009
	Demolition Hauling	Demolition_Hauling	0.0018	0.0014	0.0013	0.0010	0.0010	0.0010	0.0008	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009

Construction_Emissions_Inventory.xlsx

EquipData

Attachment F.1.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions

- Pollutants – NOx Emission Factors
- Without Mitigation
- With Mitigation

LAX Landside Access Modernization Program Project, Final EIR
Equipment specifications and emission factors reference

Emissions Reduction from Alternative Fuel: 0.00%

OFFROAD2007

Off-Road/On-Site Equipment

ID	Backup EPA Tier	EquipmentID	CO2e Emission Factors (lb/hr) 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Tier 2	Backhoe (CAT 416)	30.7102	30.7052	30.7009	30.6972	30.6943	30.6921	30.6903	30.6889	30.6877	30.6867	30.6859	30.6851	30.6845	30.6840
	Tier 2	Bobcat S650	28.7926	28.7862	28.7820	28.7786	28.7759	28.7738	28.7722	28.7708	28.7697	28.7688	28.7680	28.7673	28.7667	28.7663
	Tier 2	Compactor (CAT 815)	80.0312	80.0267	80.0227	80.0190	80.0156	80.0125	80.0096	80.0070	80.0045	80.0023	80.0002	79.9983	79.9968	79.9949
	Tier 2	Compactor (CAT 825)	80.0312	80.0267	80.0227	80.0190	80.0156	80.0125	80.0096	80.0070	80.0045	80.0023	80.0002	79.9983	79.9968	79.9949
	Tier 2	Roller (CAT CB564D)	39.1102	39.1031	39.0962	39.0897	39.0836	39.0781	39.0734	39.0694	39.0662	39.0635	39.0612	39.0593	39.0575	39.0560
	Tier 2	Roller (Hamm 3520 single)	78.1293	78.1243	78.1197	78.1153	78.1111	78.1072	78.1035	78.1002	78.0971	78.0942	78.0915	78.0890	78.0867	78.0847
	Tier 2	Crane (Terex Explorer 5800)	164.9871	164.9865	164.9760	164.9659	164.9565	164.9476	164.9397	164.9325	164.9258	164.9193	164.9133	164.9079	164.9032	164.8991
	Tier 2	Curb Paver (Gomaco Comm. III)	75.7577	75.7490	75.7406	75.7324	75.7246	75.7171	75.7098	75.7030	75.6964	75.6903	75.6847	75.6797	75.6752	75.6712
	Tier 2	Dozer (CAT D6)	95.9350	95.8970	95.8913	95.8860	95.8814	95.8772	95.8735	95.8703	95.8673	95.8649	95.8629	95.8612	95.8599	95.8591
	Tier 2	Excavator (CAT 385)	204.7608	204.7475	204.7348	204.7235	204.7135	204.7045	204.6962	204.6888	204.6822	204.6765	204.6719	204.6684	204.6655	204.6635
	Tier 2	Generators (400A)	3.8963	3.8961	3.8959	3.8957	3.8956	3.8955	3.8954	3.8954	3.8953	3.8953	3.8953	3.8952	3.8952	3.8952
	Tier 2	Grader (CAT 12)	57.4763	57.4695	57.4631	57.4569	57.4512	57.4459	57.4409	57.4366	57.4330	57.4299	57.4272	57.4249	57.4229	57.4212
	Tier 2	Grader (CAT 14)	57.4763	57.4695	57.4631	57.4569	57.4512	57.4459	57.4409	57.4366	57.4330	57.4299	57.4272	57.4249	57.4229	57.4212
	Tier 2	Hand Paint Cart	10.3910	10.3910	10.3910	10.3910	10.3910	10.3910	10.3910	10.3910	10.3910	10.3910	10.3910	10.3910	10.3910	10.3910
	Tier 2	Loader (CAT 914G)	37.7107	37.7041	37.6978	37.6921	37.6868	37.6820	37.6778	37.6744	37.6715	37.6693	37.6674	37.6658	37.6645	37.6633
	Tier 2	Milling Machine (CAT PM-200)	248.6024	248.5814	248.5811	248.5713	248.5619	248.5531	248.5451	248.5378	248.5309	248.5252	248.5207	248.5173	248.5143	248.5125
	Tier 2	Paving Machine (CAT AP1055)	97.3517	97.3433	97.3353	97.3279	97.3210	97.3146	97.3086	97.3031	97.2980	97.2932	97.2889	97.2849	97.2813	97.2781
	Tier 2	Per Drill (150TN crane)	164.9871	164.9865	164.9760	164.9659	164.9565	164.9476	164.9397	164.9325	164.9258	164.9193	164.9133	164.9079	164.9032	164.8991
	Tier 2	Portable Generator (400kW)	6.1700	6.1687	6.1694	6.1691	6.1689	6.1688	6.1687	6.1686	6.1685	6.1685	6.1684	6.1684	6.1683	6.1683
	Tier 2	Rail Machine	285.3523	285.3397	285.3279	285.3166	285.3059	285.2958	285.2865	285.2780	285.2703	285.2637	285.2586	285.2547	285.2512	285.2491
	Tier 2	Rubber-Tire Crane (Terex AC100)	139.4964	139.4875	139.4788	139.4705	139.4626	139.4553	139.4486	139.4425	139.4369	139.4315	139.4265	139.4220	139.4180	139.4145
	Tier 2	Scissor Lift (JLG 2630ES)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Tier 2	Small Tandem Compactor (CB24B)	11.0250	11.0208	11.0168	11.0130	11.0096	11.0064	11.0035	11.0010	10.9988	10.9971	10.9956	10.9944	10.9934	10.9926
	Tier 2	Trackhoe (PC200)	61.6497	61.6418	61.6349	61.6291	61.6242	61.6200	61.6162	61.6130	61.6100	61.6075	61.6052	61.6032	61.6015	61.6001
	Tier 2	Trencher (CAT T9)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

EMFAC2014

On-Road/On-Site Equipment

ID	Description	EquipmentID	CO2e Emission Factors (lb/hr) 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
		Pickup Truck (F250)	9.3172	9.2481	9.1777	9.1114	9.0484	8.9987	8.9325	8.8806	8.8324	8.7883	8.7484	8.7129	8.6816	8.6538
		Boom Truck	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887
		Concrete Delivery Truck	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887
		Concrete Haul Truck (Mack MHD)	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887
		Concrete Pump Truck	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887
		Concrete Truck (Terex FD4000)	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887
		Delivery Truck (semi)	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887
		Flat Bed Truck (17N)	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887
		Forklift Boom Truck (G10-55A)	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887
		Form Truck (Mack Granite)	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887
		Haul Truck (Mack Granite)	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887
		Haul Truck (Mack Med. Duty)	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887
		Haul Truck (semi)	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887
		Mechanic Truck (17N)	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887
		Mechanic Truck (27N)	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887
		Precast Delivery Truck (semi)	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887
		Pump Truck	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887
		Rail Delivery Truck	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887
		Seed Truck	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887
		Steel Delivery Truck	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887
		Stone Haul Truck (Mack Med. Duty)	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887
		Striping Truck (2.5TN)	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887
		Water Truck (2.5TN)	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887
		Work Truck (2.5TN)	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887
		Man Lift (Versalift VO-355-MHI)	22.1908	21.6381	21.3272	20.9205	20.5943	20.2615	19.9879	19.7122	19.4524	19.2069	18.9393	18.7902	18.7440	18.6887

EMFAC2014

On-Road/Off-Site Equipment

ID	Description	EquipmentID	CO2e Emission Factors (lb/mi) 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Worker Trips	Employee_Vehicles	0.8114	0.7903	0.7664	0.7467	0.7249	0.7026	0.6802	0.6626	0.6403	0.6209	0.6035	0.5860	0.5740	0.5614
	Material Deliveries	Material_Delivery	3.9965	3.8778	3.8110	3.7508	3.7005	3.6486	3.4701	3.4610	3.4482	3.4364	3.4242	3.4138	3.4039	3.3925
	Concrete Deliveries	Concrete_Delivery	4.2300	4.1452	4.0740	4.0051	3.9514	3.8960	3.6993	3.6890	3.6754	3.6626	3.6496	3.6383	3.6277	3.6152
	Base Material Deliveries	Base_Delivery	3.9965	3.8778	3.8110	3.7508	3.7005	3.6486	3.4701	3.4610	3.4482	3.4364	3.4242	3.4138	3.4039	3.3925
	Asphalt Deliveries	Asphalt_Delivery	3.9965	3.8778	3.8110	3.7508	3.7005	3.6486	3.4701	3.4610	3.4482	3.4364	3.4242	3.4138	3.4039	3.3925
	Demolition Hauling	Demolition_Hauling	4.0349	3.9947	3.8767	3.8144	3.7632	3.7104	3.5274	3.5180	3.5050	3.4929	3.4806	3.4699	3.4599	3.4482

Construction_Emissions_Inventory.xlsx — EquipData

LAX Landside Access Modernization Program Project, Final EIR
Equipment specifications and emission factors reference

Emissions Reduction from Alternative Fuel: 0%

OFFROAD2011

Off-Road/On-Site Equipment

ID	Backup EPA Tier	EquipmentID	NOx Emission Factors (lb/hr) 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2029
	Tier 2	Backhoe (CAT 416)	0.3678	0.2313	0.2148	0.1946	0.1781	0.1643	0.1544	0.1459	0.1387	0.1324	0.1267	0.1216	0.1169	0.1128
	Tier 2	Bobcat S650	0.2510	0.2225	0.2014	0.1823	0.1670	0.1465	0.1355	0.1269	0.1143	0.1085	0.1035	0.1001	0.0973	0.0973
	Tier 2	Compactor (CAT 815)	0.5875	0.5085	0.4602	0.4179	0.3849	0.3351	0.2985	0.2799	0.2422	0.2160	0.1968	0.1859	0.1809	0.1809
	Tier 2	Compactor (CAT 825)	0.5875	0.5085	0.4602	0.4179	0.3849	0.3351	0.2985	0.2799	0.2422	0.2160	0.1968	0.1859	0.1809	0.1809
	Tier 2	Roller (CAT CB564D)	0.3977	0.3451	0.3207	0.2986	0.2811	0.2489	0.2308	0.2191	0.1989	0.1874	0.1778	0.1716	0.1660	0.1660
	Tier 2	Roller (Hamm 3520 single)	0.8206	0.4772	0.4263	0.4127	0.3958	0.3289	0.3032	0.2770	0.2341	0.2146	0.1982	0.1919	0.1808	0.1808
	Tier 2	Crane (Terex Explorer 5800)	1.2453	1.1306	1.0931	1.0376	0.9420	0.8592	0.7908	0.7012	0.6317	0.5802	0.5290	0.4575	0.4051	0.4051
	Tier 2	Curb Paver (Gomaco Comm. III)	0.8232	0.5363	0.4970	0.4488	0.4114	0.3168	0.2817	0.2581	0.2169	0.1805	0.1673	0.1505	0.1347	0.1347
	Tier 2	Dozer (CAT D6)	0.7224	0.6469	0.5819	0.5127	0.4592	0.3642	0.3140	0.2893	0.2089	0.1664	0.1803	0.1618	0.1495	0.1495
	Tier 2	Excavator (CAT 385)	1.0224	0.8267	0.7416	0.6813	0.6007	0.5211	0.4698	0.4105	0.3402	0.3283	0.2845	0.2271	0.2217	0.2217
	Tier 2	Generators (400A)	0.0370	0.0361	0.0356	0.0348	0.0341	0.0332	0.0318	0.0310	0.0300	0.0287	0.0271	0.0262	0.0255	0.0255
	Tier 2	Grader (CAT 12)	0.8369	0.7787	0.7449	0.6944	0.6514	0.5710	0.5331	0.4942	0.4292	0.3825	0.3522	0.3235	0.2900	0.2900
	Tier 2	Grader (CAT 14)	0.8369	0.7787	0.7449	0.6944	0.6514	0.5710	0.5331	0.4942	0.4292	0.3825	0.3522	0.3235	0.2900	0.2900
	Tier 2	Hand Paint Cart	0.0996	0.0972	0.0958	0.0937	0.0919	0.0894	0.0856	0.0835	0.0807	0.0772	0.0729	0.0705	0.0688	0.0688
	Tier 2	Loader (CAT 914G)	0.4069	0.4021	0.3798	0.3511	0.3286	0.2842	0.2732	0.2572	0.2289	0.2097	0.1949	0.1902	0.1781	0.1781
	Tier 2	Milling Machine (CAT PM-200)	1.7668	1.6038	1.5394	1.4312	1.2834	1.0628	0.9772	0.8106	0.6437	0.5480	0.4981	0.4623	0.4062	0.4062
	Tier 2	Paving Machine (CAT AP1055)	0.8520	0.5763	0.5194	0.4509	0.4068	0.3212	0.2659	0.1876	0.1507	0.1323	0.1192	0.1066	0.0873	0.0873
	Tier 2	Per Drill (150TN crane)	1.2453	1.1306	1.0931	1.0376	0.9420	0.8592	0.7908	0.7012	0.6317	0.5802	0.5290	0.4575	0.4051	0.4051
	Tier 2	Portable Generator (400kW)	0.0591	0.0577	0.0569	0.0557	0.0546	0.0531	0.0515	0.0508	0.0479	0.0458	0.0433	0.0419	0.0409	0.0409
	Tier 2	Rail Machine	2.0280	1.8409	1.7670	1.6428	1.4731	1.2199	1.1217	0.9804	0.7388	0.6291	0.5717	0.5307	0.4663	0.4663
	Tier 2	Rubber-Tire Crane (Terex AC100)	1.4020	1.2930	1.2377	1.1903	1.1328	1.0203	0.9441	0.8834	0.7537	0.6869	0.6376	0.5909	0.5332	0.5332
	Tier 2	Scissor Lift (JLG 2630ES)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Tier 2	Small Tandem Compactor (CB24B)	0.1054	0.1029	0.1015	0.0992	0.0973	0.0946	0.0918	0.0904	0.0884	0.0847	0.0772	0.0746	0.0728	0.0728
	Tier 2	Trackhoe (PC200)	0.4224	0.3578	0.3163	0.2823	0.2498	0.2029	0.1754	0.1528	0.1229	0.1062	0.0935	0.0864	0.0814	0.0814
	Tier 2	Trencher (CAT T9)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

EMFAC2014

On-Road/On-Site Equipment

ID	Description	EquipmentID	NOx Emission Factors (lb/hr) 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
		Pickup Truck (F250)	0.0034	0.0031	0.0027	0.0024	0.0021	0.0019	0.0016	0.0015	0.0013	0.0011	0.0010	0.0009	0.0008	0.0008
		Boom Truck	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541
		Concrete Delivery Truck	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541
		Concrete Haul Truck (Mack MHD)	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541
		Concrete Pump Truck	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541
		Concrete Truck (Terex FD4000)	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541
		Delivery Truck (semi)	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541
		Flat Bed Truck (17N)	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541
		Forklift Boom Truck (G10-55A)	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541
		Form Truck (Mack Granite)	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541
		Haul Truck (Mack Granite)	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541
		Haul Truck (Mack Med. Duty)	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541
		Haul Truck (semi)	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541
		Mechanic Truck (17N)	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541
		Mechanic Truck (27N)	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541
		Precast Delivery Truck (semi)	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541
		Pump Truck	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541
		Rail Delivery Truck	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541
		Seed Truck	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541
		Steel Delivery Truck	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541
		Stone Haul Truck (Mack Med. Duty)	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541
		Striping Truck (2.5TN)	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541
		Water Truck (2.5TN)	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541
		Work Truck (2.5TN)	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541
		Man Lift (Versalift VO-355-MHI)	0.0886	0.0877	0.0844	0.0768	0.0731	0.0698	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541	0.0541

EMFAC2014

On-Road/Off-Site Equipment

ID	Description	EquipmentID	NOx Emission Factors (lb/mi) 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Worker Trips	Employee_Vehicles	0.0066	0.0065	0.0064	0.0064	0.0063	0.0063	0.0063	0.0063	0.0062	0.0062	0.0062	0.0062	0.0062	0.0062
	Material Deliveries	Material_Delivery	0.0144	0.0119	0.0109	0.0090	0.0080	0.0071	0.0028	0.0028	0.0028	0.0028	0.0027	0.0027	0.0027	0.0027
	Concrete Deliveries	Concrete_Delivery	0.0165	0.0138	0.0126	0.0103	0.0092	0.0082	0.0034	0.0034	0.0033	0.0033	0.0033	0.0033	0.0033	0.0032
	Base Material Deliveries	Base_Delivery	0.0144	0.0119	0.0109	0.0090	0.0080	0.0071	0.0028	0.0028	0.0028	0.0028	0.0027	0.0027	0.0027	0.0027
	Asphalt Deliveries	Asphalt_Delivery	0.0144	0.0119	0.0109	0.0090	0.0080	0.0071	0.0028	0.0028	0.0028	0.0028	0.0027	0.0027	0.0027	0.0027
	Demolition Hauling	Demolition_Hauling	0.0149	0.0124	0.0113	0.0093	0.0083	0.0073	0.0030	0.0030	0.0029	0.0029	0.0029	0.0029	0.0028	0.0028

Construction_Emissions_Inventory.xlsx — EquipData

LAX Landside Access Modernization Program Project, Final EIR
Equipment specifications and emission factors reference

Emissions Reduction from Alternative Fuel: 36.00%

OFFROAD2007

Off-Road/On-Site Equipment

ID	Backup EPA Tier	EquipmentID	CO2e Emission Factors (lb/hr) 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Tier 2	Backhoe (CAT 416)	19.6545	19.6513	19.6485	19.6462	19.6443	19.6428	19.6418	19.6409	19.6401	19.6395	19.6390	19.6386	19.6381	19.6378
	Tier 2	Bobcat S650	18.4251	18.4231	18.4205	18.4183	18.4166	18.4152	18.4142	18.4133	18.4126	18.4120	18.4115	18.4111	18.4107	18.4104
	Tier 2	Compactor (CAT 815)	51.2200	51.2171	51.2145	51.2122	51.2100	51.2080	51.2062	51.2045	51.2029	51.2014	51.2002	51.1989	51.1978	51.1967
	Tier 2	Compactor (CAT 825)	51.2200	51.2171	51.2145	51.2122	51.2100	51.2080	51.2062	51.2045	51.2029	51.2014	51.2002	51.1989	51.1978	51.1967
	Tier 2	Roller (CAT CB564D)	25.0305	25.0260	25.0216	25.0174	25.0135	25.0100	25.0070	25.0044	25.0023	25.0006	24.9992	24.9979	24.9968	24.9958
	Tier 2	Roller (Hamm 3520 single)	50.0027	49.9996	49.9966	49.9938	49.9911	49.9886	49.9863	49.9841	49.9821	49.9803	49.9786	49.9769	49.9755	49.9742
	Tier 2	Crane (Terex Explorer 5800)	105.5981	105.5914	105.5847	105.5782	105.5721	105.5665	105.5614	105.5567	105.5523	105.5483	105.5446	105.5411	105.5380	105.5354
	Tier 2	Curb Paver (Gomaco Comm. III)	48.4849	48.4793	48.4740	48.4688	48.4638	48.4589	48.4543	48.4499	48.4457	48.4418	48.4382	48.4350	48.4321	48.4296
	Tier 2	Dozer (CAT D6)	61.3779	61.3741	61.3704	61.3671	61.3641	61.3614	61.3591	61.3570	61.3551	61.3535	61.3522	61.3511	61.

LAX Landside Access Modernization Program Project, Final EIR
Equipment specifications and emission factors reference

Emissions Reduction from Alternative Fuel: 0%

CEIDARS - (PM2.5 = PM10 x 0.92)

Off-Road/On-Site Equipment

ID	Backup EPA Tier	EquipmentID	PM2.5 Emission Factors (lb/hr) 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2029
	Tier 2	Backhoe (CAT 416)	0.0206	0.0174	0.0152	0.0132	0.0116	0.0094	0.0082	0.0072	0.0058	0.0051	0.0045	0.0041	0.0038	0.0038
	Tier 2	Bobcat S650	0.0194	0.0164	0.0143	0.0124	0.0109	0.0089	0.0077	0.0068	0.0054	0.0048	0.0043	0.0038	0.0036	0.0036
	Tier 2	Compactor (CAT 815)	0.0222	0.0192	0.0173	0.0157	0.0149	0.0125	0.0111	0.0105	0.0092	0.0083	0.0077	0.0074	0.0072	0.0072
	Tier 2	Compactor (CAT 825)	0.0222	0.0192	0.0173	0.0157	0.0149	0.0125	0.0111	0.0105	0.0092	0.0083	0.0077	0.0074	0.0072	0.0072
	Tier 2	Roller (CAT CB564D)	0.0292	0.0243	0.0220	0.0200	0.0184	0.0154	0.0139	0.0127	0.0107	0.0096	0.0087	0.0080	0.0074	0.0074
	Tier 2	Roller (Hamm 3520 single)	0.0219	0.0164	0.0143	0.0137	0.0131	0.0111	0.0102	0.0096	0.0087	0.0082	0.0075	0.0074	0.0072	0.0072
	Tier 2	Crane (Terex Explorer 5800)	0.0443	0.0412	0.0405	0.0393	0.0371	0.0349	0.0328	0.0292	0.0259	0.0245	0.0225	0.0198	0.0177	0.0177
	Tier 2	Curb Paver (Gomaco Comm. III)	0.0311	0.0266	0.0248	0.0223	0.0203	0.0152	0.0134	0.0121	0.0100	0.0092	0.0077	0.0069	0.0063	0.0063
	Tier 2	Dozer (CAT D6)	0.1582	0.1559	0.1537	0.1517	0.1501	0.1472	0.1455	0.1447	0.1423	0.1416	0.1414	0.1408	0.1404	0.1404
	Tier 2	Excavator (CAT 385)	0.0364	0.0326	0.0302	0.0282	0.0262	0.0228	0.0212	0.0188	0.0164	0.0158	0.0145	0.0125	0.0123	0.0123
	Tier 2	Generators (400A)	0.0033	0.0031	0.0030	0.0029	0.0028	0.0026	0.0024	0.0023	0.0020	0.0018	0.0015	0.0013	0.0012	0.0012
	Tier 2	Grader (CAT 12)	0.0474	0.0440	0.0420	0.0391	0.0366	0.0319	0.0298	0.0276	0.0238	0.0210	0.0193	0.0177	0.0158	0.0158
	Tier 2	Grader (CAT 14)	0.0474	0.0440	0.0420	0.0391	0.0366	0.0319	0.0298	0.0276	0.0238	0.0210	0.0193	0.0177	0.0158	0.0158
	Tier 2	Hand Paint Cart	0.0088	0.0084	0.0081	0.0077	0.0074	0.0069	0.0065	0.0063	0.0054	0.0048	0.0040	0.0035	0.0032	0.0032
	Tier 2	Loader (CAT 914G)	0.0379	0.0343	0.0315	0.0289	0.0269	0.0230	0.0207	0.0191	0.0158	0.0140	0.0127	0.0117	0.0103	0.0103
	Tier 2	Milling Machine (CAT PM-200)	0.1950	0.1898	0.1875	0.1823	0.1753	0.1674	0.1652	0.1610	0.1558	0.1529	0.1515	0.1505	0.1489	0.1489
	Tier 2	Paving Machine (CAT AP1055)	0.0171	0.0154	0.0141	0.0124	0.0115	0.0093	0.0079	0.0080	0.0052	0.0044	0.0039	0.0036	0.0030	0.0030
	Tier 2	Per Drill (1507N crane)	0.0443	0.0412	0.0405	0.0393	0.0371	0.0349	0.0328	0.0292	0.0259	0.0245	0.0225	0.0198	0.0177	0.0177
	Tier 2	Portable Generator (4000W)	0.0053	0.0050	0.0048	0.0046	0.0044	0.0041	0.0039	0.0037	0.0032	0.0028	0.0024	0.0021	0.0019	0.0019
	Tier 2	Rail Machine	0.2041	0.1980	0.1955	0.1895	0.1814	0.1724	0.1698	0.1650	0.1591	0.1557	0.1541	0.1529	0.1512	0.1512
	Tier 2	Rubber-Tire Crane (Terex AC100)	0.0586	0.0539	0.0516	0.0499	0.0477	0.0433	0.0402	0.0379	0.0333	0.0293	0.0274	0.0255	0.0229	0.0229
	Tier 2	Scissor Lift (JLG 2630ES)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Tier 2	Small Tandem Compactor (CB24B)	0.0094	0.0089	0.0086	0.0082	0.0079	0.0074	0.0069	0.0068	0.0057	0.0050	0.0042	0.0037	0.0034	0.0034
	Tier 2	Trackhoe (PC200)	0.0221	0.0188	0.0166	0.0150	0.0134	0.0109	0.0096	0.0086	0.0069	0.0061	0.0055	0.0051	0.0049	0.0049
	Tier 2	Trencher (CAT T9)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

EMFAC2014

On-Road/On-Site Equipment

ID	Description	EquipmentID	PM2.5 Emission Factors (lb/hr) 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
		Pickup Truck (F250)	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004
		Boom Truck	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
		Concrete Delivery Truck	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
		Concrete Haul Truck (Mack MHD)	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
		Concrete Pump Truck	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
		Concrete Truck (Terex FD4000)	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
		Delivery Truck (semi)	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
		Flat Bed Truck (1TN)	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
		Forklift Boom Truck (G10-55A)	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
		Form Truck (Mack Granite)	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
		Haul Truck (Mack Granite)	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
		Haul Truck (Mack Med. Duty)	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
		Haul Truck (semi)	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
		Mechanic Truck (1TN)	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
		Mechanic Truck (2TN)	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
		Precast Delivery Truck (semi)	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
		Pump Truck	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
		Rail Delivery Truck	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
		Seed Truck	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
		Steel Delivery Truck	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
		Stone Haul Truck (Mack Med. Duty)	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
		Striping Truck (2.5TN)	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
		Water Truck (2.5TN)	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
		Work Truck (2.5TN)	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
		Man Lift (Versalift VO-355-MHI)	0.0017	0.0012	0.0011	0.0008	0.0008	0.0008	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006

EMFAC2014

On-Road/Off-Site Equipment

ID	Description	EquipmentID	PM2.5 Emission Factors (lb/mi) 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
		Worker Trips	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
		Material Deliveries	0.0003	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Concrete Deliveries	0.0003	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Base Material Deliveries	0.0003	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Asphalt Deliveries	0.0003	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Demolition Hauling	0.0003	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002

Construction_Emissions_Inventory.xlsx

EquipData

LAX Landside Access Modernization Program Project, Final EIR

LAX Landside Access Modernization Program Project, Final EIR
Equipment specifications and emission factors reference

Emissions Reduction from Alternative Fuel: 8%

OFFROAD2011

Off-Road/On-Site Equipment

ID	Backup EPA Tier	EquipmentID	NOx Emission Factors (lb/hr) 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2029
	Tier 2	Backhoe (CAT 416)	0.0885	0.0885	0.0885	0.0885	0.0885	0.0885	0.0885	0.0885	0.0885	0.0885	0.0885	0.0885	0.0885	0.0885
	Tier 2	Bobcat S650	0.0830	0.0830	0.0830	0.0830	0.0830	0.0830	0.0830	0.0830	0.0830	0.0830	0.0830	0.0830	0.0830	0.0830
	Tier 2	Compactor (CAT 815)	0.1668	0.1668	0.1668	0.1668	0.1668	0.1668	0.1668	0.1668	0.1668	0.1668	0.1668	0.1668	0.1662	0.1662
	Tier 2	Compactor (CAT 825)	0.1668	0.1668	0.1668	0.1668	0.1668	0.1668	0.1668	0.1668	0.1668	0.1668	0.1668	0.1668	0.1662	0.1662
	Tier 2	Roller (CAT CB564D)	0.1066	0.1066	0.1066	0.1066	0.1066	0.1066	0.1066	0.1066	0.1066	0.1066	0.1066	0.1066	0.1066	0.1066
	Tier 2	Roller (Hamm 3520 single)	0.1628	0.1628	0.1628	0.1628	0.1628	0.1628	0.1628	0.1628	0.1628	0.1628	0.1628	0.1628	0.1628	0.1628
	Tier 2	Crane (Terex Explorer 5800)	0.3437	0.3437	0.3437	0.3437	0.3437	0.3437	0.3437	0.3437	0.3437	0.3437	0.3437	0.3437	0.3437	0.3437
	Tier 2	Curb Paver (Gomaco Comm. III)	0.1577	0.1577	0.1577	0.1577	0.1577	0.1577	0.1577	0.1577	0.1577	0.1577	0.1577	0.1537	0.1383	0.1238
	Tier 2	Dozer (CAT D6)	0.1998	0.1998	0.1998	0.1998	0.1998	0.1998	0.1998	0.1998	0.1998	0.1998	0.1920	0.1713	0.1657	0.1487
	Tier 2	Excavator (CAT 385)	0.4267	0.4267	0.4267	0.4267	0.4267	0.4267	0.4267	0.4267	0.3772	0.3326	0.3018	0.2814	0.2087	0.2038
	Tier 2	Generators (400A)	0.0111	0.0111	0.0111	0.0111	0.0111	0.0111	0.0111	0.0111	0.0111	0.0111	0.0111	0.0111	0.0111	0.0111
	Tier 2	Grader (CAT 12)	0.1968	0.1968	0.1968	0.1968	0.1968	0.1968	0.1968	0.1968	0.1968	0.1968	0.1968	0.1568	0.1568	0.1568
	Tier 2	Grader (CAT 14)	0.1968	0.1968	0.1968	0.1968	0.1968	0.1968	0.1968	0.1968	0.1968	0.1968	0.1968	0.1568	0.1568	0.1568
	Tier 2	Hand Paint Cart	0.0299	0.0299	0.0299	0.0299	0.0299	0.0299	0.0299	0.0299	0.0299	0.0299	0.0299	0.0299	0.0299	0.0299
	Tier 2	Loader (CAT 914G)	0.1028	0.1028	0.1028	0.1028	0.1028	0.1028	0.1028	0.1028	0.1028	0.1028	0.1028	0.1028	0.1028	0.1028
	Tier 2	Milling Machine (CAT PM-200)	0.5181	0.5181	0.5181	0.5181	0.5181	0.5181	0.5181	0.5181	0.5037	0.4577	0.4249	0.3733	0.3733	
	Tier 2	Paving Machine (CAT AP1055)	0.2028	0.2028	0.2028	0.2028	0.2028	0.2028	0.2028	0.2028	0.1724	0.1477	0.1216	0.1096	0.0979	0.0802
	Tier 2	Per Drill (1507N crane)	0.3437	0.3437	0.3437	0.3437	0.3437	0.3437	0.3437	0.3437	0.3437	0.3437	0.3437	0.3437	0.3437	0.3437
	Tier 2	Portable Generator (4000W)	0.0178	0.0178	0.0178	0.0178	0.0178	0.0178	0.0178	0.0178	0.0178	0.0178	0.0178	0.0178	0.0178	0.0178
	Tier 2	Rail Machine	0.5947	0.5947	0.5947	0.5947	0.5947	0.5947	0.5947	0.5947	0.5947	0.5781	0.5254	0.4877	0.4285	0.4285
	Tier 2	Rubber-Tire Crane (Terex AC100)	0.2306	0.2306	0.2306	0.2306	0.2306	0.2306	0.2306	0.2306	0.2306	0.2306	0.2306	0.2306	0.2306	0.2306
	Tier 2	Scissor Lift (JLG 2630ES)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Tier 2	Small Tandem Compactor (CB24B)	0.0317	0.0317	0.0317	0.0317	0.0317	0.0317	0.0317	0.0317	0.0317	0.0317	0.0317	0.0317	0.0317	0.0317
	Tier 2	Trackhoe (PC200)	0.1682	0.1682	0.1682	0.1682	0.1682	0.1682	0.1682	0.1682	0.1612	0.1404	0.1130	0.0976	0.0859	0.0794
	Tier 2	Trencher (CAT T9)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

EMFAC2014

On-Road/On-Site Equipment

ID	Description	EquipmentID	NOx Emission Factors (lb/hr) 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
		Pickup Truck (F250)	0.0034	0.0031	0.0027	0.0024	0.0021	0.0019	0.0016	0.0015	0.0013	0.0011	0.0010	0.0009	0.0008	0.0008
		Boom Truck	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497
		Concrete Delivery Truck	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497
		Concrete Haul Truck (Mack MHD)	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497
		Concrete Pump Truck	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497
		Concrete Truck (Terex FD4000)	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497
		Delivery Truck (semi)	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497
		Flat Bed Truck (1TN)	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497
		Forklift Boom Truck (G 10-55A)	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497
		Form Truck (Mack Granite)	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497
		Haul Truck (Mack Granite)	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497
		Haul Truck (Mack Med. Duty)	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497
		Haul Truck (semi)	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497
		Mechanic Truck (1TN)	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497
		Mechanic Truck (2TN)	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497
		Precast Delivery Truck (semi)	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497
		Pump Truck	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497
		Rail Delivery Truck	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497
		Seed Truck	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497
		Steel Delivery Truck	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497
		Stone Haul Truck (Mack Med. Duty)	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497
		Striping Truck (2.5TN)	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497
		Water Truck (2.5TN)	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497
		Work Truck (2.5TN)	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497
		Man Lift (Versalift VO-355-MHI)	0.0819	0.0744	0.0722	0.0689	0.0664	0.0621	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497	0.0497

EMFAC2014

On-Road/Off-Site Equipment

ID	Description	EquipmentID	NOx Emission Factors (lb/mi) 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
		Worker Trips	0.0006	0.0005	0.0004	0.0004	0.0003	0.0003	0.0003	0.0003	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Material Deliveries	0.0110	0.0093	0.0086	0.0072	0.0065	0.0059	0.0026	0.0026	0.0026	0.0025	0.0025	0.0025	0.0025	0.0024
		Concrete Deliveries	0.0125	0.0107	0.0099	0.0083	0.0075	0.0068	0.0031	0.0031	0.0031	0.0030	0.0030	0.0030	0.0030	0.0030
		Base Material Deliveries	0.0110	0.0093	0.0086	0.0072	0.0065	0.0059	0.0026	0.0026	0.0026	0.0025	0.0025	0.0025	0.0025	0.0024
		Asphalt Deliveries	0.0110	0.0093	0.0086	0.0072	0.0065	0.0059	0.0026	0.0026	0.0026	0.0025	0.0025	0.0025	0.0025	0.0024
		Demolition Hauling	0.0114	0.0096	0.0089	0.0075	0.0068	0.0061	0.0027	0.0027	0.0027	0.0027	0.0026	0.0026	0.0026	0.0026

Construction_Emissions_Inventory.xlsx

EquipData

LAX Landside Access Modernization Program Project, Final EIR

LAX Landside Access Modernization Program Project, Final EIR
Equipment specifications and emission factors reference

Emissions Reduction from Alternative Fuel: 30%

CEIDARS - (PM2.5 = PM10 x 0.92)

Off-Road/On-Site Equipment

ID	Backup EPA Tier	EquipmentID	PM2.5 Emission Factors (lb/hr) 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2029
	Tier 2	Backhoe (CAT 416)	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018
	Tier 2	Bobcat S650	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018
	Tier 2	Compactor (CAT 815)	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027
	Tier 2	Compactor (CAT 825)	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027
	Tier 2	Roller (CAT CB564D)	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Tier 2	Roller (Hamm 3520 single)	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026
	Tier 2	Crane (Terex Explorer 5800)	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055
	Tier 2	Curb Paver (Gomaco Comm. III)	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
	Tier 2	Dozer (CAT D6)	0.1371	0.1371	0.1371	0.1371	0.1371	0.1371	0.1371	0.1371	0.1371	0.1371	0.1371	0.1371	0.1371	0.1371
	Tier 2	Excavator (CAT 385)	0.0106	0.0106	0.0106	0.0106	0.0106	0.0106	0.0106	0.0106	0.0106	0.0106	0.0106	0.0098	0.0098	0.0098
	Tier 2	Generators (400A)	0.0002	0.0002	0.0002

LAX Landside Access Modernization Program Project, Final EIR
Equipment specifications and emission factors reference

Emissions Reduction from Alternative Fuel: 30%

	89	90	91	92	93	94	95	96	97	98	99	100	101	102
	OFFROAD2011													
Off-Road/On-Site Equipment	PM10 Emission Factors (lb/hr)													
ID Backup EPA Tier	Equipment ID	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2029
Tier 2	Backhoe (CAT 416)	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032
Tier 2	Bobcat S650	0.0033	0.0033	0.0033	0.0033	0.0033	0.0033	0.0033	0.0033	0.0033	0.0033	0.0033	0.0033	0.0033	0.0033
Tier 2	Compactor (CAT 815)	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029
Tier 2	Compactor (CAT 825)	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029
Tier 2	Roller (CAT CB564D)	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018
Tier 2	Roller (Hamm 3520 single)	0.0028	0.0028	0.0028	0.0028	0.0028	0.0028	0.0028	0.0028	0.0028	0.0028	0.0028	0.0028	0.0028	0.0028
Tier 2	Crane (Terex Explorer 5800)	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060
Tier 2	Curb Paver (Gomaco Comm. III)	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027
Tier 2	Dozer (CAT D6)	0.2471	0.2471	0.2471	0.2471	0.2471	0.2471	0.2471	0.2471	0.2471	0.2471	0.2471	0.2471	0.2471	0.2471
Tier 2	Excavator (CAT 385)	0.0324	0.0324	0.0324	0.0324	0.0324	0.0324	0.0324	0.0324	0.0324	0.0324	0.0324	0.0311	0.0310	0.0310
Tier 2	Generators (400A)	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Tier 2	Grader (CAT 12)	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026
Tier 2	Grader (CAT 14)	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026
Tier 2	Hand Paint Cart	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
Tier 2	Loader (CAT 914G)	0.0043	0.0043	0.0043	0.0043	0.0043	0.0043	0.0043	0.0043	0.0043	0.0043	0.0043	0.0043	0.0043	0.0043
Tier 2	Milling Machine (CAT PM-200)	0.2527	0.2527	0.2527	0.2527	0.2527	0.2527	0.2527	0.2527	0.2527	0.2527	0.2527	0.2527	0.2527	0.2527
Tier 2	Paving Machine (CAT AP1055)	0.0035	0.0035	0.0035	0.0035	0.0035	0.0035	0.0035	0.0035	0.0035	0.0031	0.0028	0.0025	0.0021	0.0021
Tier 2	Pier Drill (150TN crane)	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060
Tier 2	Portable Generator (400DW)	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004
Tier 2	Rail Machine	0.2540	0.2540	0.2540	0.2540	0.2540	0.2540	0.2540	0.2540	0.2540	0.2540	0.2540	0.2540	0.2540	0.2540
Tier 2	Rubber-Tire Crane (Terex AC100)	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050
Tier 2	Scissor Lift (JLG 2630ES)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tier 2	Small Tandem Compactor (CB24B)	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
Tier 2	Trackhoe (PC200)	0.0099	0.0099	0.0099	0.0099	0.0099	0.0099	0.0099	0.0099	0.0099	0.0099	0.0099	0.0098	0.0098	0.0098
Tier 2	Trencher (CAT T9)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	EMFAC2014													
On-Road/On-Site Equipment	PM10 Emission Factors (lb/hr)													
ID Description	Equipment ID	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Pickup Truck (F250)	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011
	Boom Truck	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Concrete Delivery Truck	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Concrete Haul Truck (Mack MHD)	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Concrete Pump Truck	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Concrete Truck (Terex FD4000)	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Delivery Truck (semi)	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Flat Bed Truck (1TN)	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Forklift Boom Truck (G10-55A)	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Form Truck (Mack Granite)	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Haul Truck (Mack Granite)	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Haul Truck (Mack Med. Duty)	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Haul Truck (semi)	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Mechanic Truck (1TN)	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Mechanic Truck (2TN)	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Precast Delivery Truck (semi)	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Pump Truck	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Rail Delivery Truck	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Seed Truck	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Steel Delivery Truck	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Stone Haul Truck (Mack Med. Duty)	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Striping Truck (2.5TN)	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Water Truck (2.5TN)	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Work Truck (2.5TN)	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Man Lift (Versalift VO-355-MHI)	0.0025	0.0021	0.0021	0.0019	0.0018	0.0018	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017

	EMFAC2014													
On-Road/Off-Site Equipment	PM10 Emission Factors (lb/mi)													
ID Description	Equipment ID	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Worker Trips	Employee_Vehicles	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Material Deliveries	Material_Delivery	0.0007	0.0007	0.0007	0.0007	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
Concrete Deliveries	Concrete_Delivery	0.0007	0.0007	0.0007	0.0007	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
Base Material Deliveries	Base_Delivery	0.0007	0.0007	0.0007	0.0007	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
Asphalt Deliveries	Asphalt_Delivery	0.0007	0.0007	0.0007	0.0007	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
Demolition Hauling	Demolition_Hauling	0.0007	0.0007	0.0007	0.0007	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006

Attachment F.1.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions

- Pollutants – PM10 Emission Factors
  - Without Mitigation
  - With Mitigation

LAX Landside Access Modernization Program Project, Final EIR

LAX Landside Access Modernization Program Project, Final EIR
Equipment specifications and emission factors reference

Emissions Reduction from Alternative Fuel: 0%

	89	90	91	92	93	94	95	96	97	98	99	100	101	102
	OFFROAD2011													
Off-Road/On-Site Equipment	PM10 Emission Factors (lb/hr)													
ID Backup EPA Tier	Equipment ID	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2029
Tier 2	Backhoe (CAT 416)	0.0218	0.0166	0.0163	0.0143	0.0127	0.0106	0.0094	0.0084	0.0069	0.0063	0.0057	0.0053	0.0050	0.0050
Tier 2	Bobcat S650	0.0207	0.0178	0.0156	0.0138	0.0123	0.0102	0.0091	0.0082	0.0068	0.0062	0.0056	0.0053	0.0050	0.0050
Tier 2	Compactor (CAT 815)	0.0222	0.0192	0.0173	0.0157	0.0149	0.0125	0.0111	0.0105	0.0092	0.0083	0.0077	0.0074	0.0072	0.0072
Tier 2	Compactor (CAT 825)	0.0222	0.0192	0.0173	0.0157	0.0149	0.0125	0.0111	0.0105	0.0092	0.0083	0.0077	0.0074	0.0072	0.0072
Tier 2	Roller (CAT CB564D)	0.0292	0.0243	0.0220	0.0200	0.0184	0.0154	0.0138	0.0127	0.0107	0.0096	0.0087	0.0080	0.0074	0.0074
Tier 2	Roller (Hamm 3520 single)	0.0219	0.0164	0.0143	0.0137	0.0131	0.0111	0.0102	0.0096	0.0087	0.0082	0.0075	0.0074	0.0072	0.0072
Tier 2	Crane (Terex Explorer 5800)	0.0443	0.0412	0.0405	0.0363	0.0371	0.0349	0.0328	0.0292	0.0259	0.0245	0.0225	0.0198	0.0177	0.0177
Tier 2	Curb Paver (Gomaco Comm. III)	0.0311	0.0266	0.0248	0.0223	0.0203	0.0152	0.0134	0.0121	0.0100	0.0082	0.0077	0.0069	0.0063	0.0063
Tier 2	Dozer (CAT D6)	0.2679	0.2656	0.2635	0.2614	0.2599	0.2563	0.2544	0.2520	0.2513	0.2511	0.2505	0.2501	0.2501	0.2501
Tier 2	Excavator (CAT 385)	0.0597	0.0538	0.0514	0.0494	0.0464	0.0440	0.0424	0.0400	0.0376	0.0370	0.0357	0.0337	0.0335	0.0335
Tier 2	Generators (400A)	0.0033	0.0031	0.0030	0.0029	0.0028	0.0026	0.0024	0.0023	0.0020	0.0018	0.0015	0.0013	0.0012	0.0012
Tier 2	Grader (CAT 12)	0.0474	0.0440	0.0420	0.0391	0.0366	0.0319	0.0298	0.0276	0.0238	0.0210	0.0193	0.0177	0.0158	0.0158
Tier 2	Grader (CAT 14)	0.0474	0.0440	0.0420	0.0391	0.0366	0.0319	0.0298	0.0276	0.0238	0.0210	0.0193	0.0177	0.0158	0.0158
Tier 2	Hand Paint Cart	0.0088	0.0084	0.0081	0.0077	0.0074	0.0069	0.0065	0.0063	0.0054	0.0048	0.0040	0.0035	0.0032	0.0032
Tier 2	Loader (CAT 914G)	0.0400	0.0365	0.0337	0.0311	0.0284	0.0252	0.0229	0.0213	0.0180	0.0161	0.0149	0.0139	0.0125	0.0125
Tier 2	Milling Machine (CAT PM-200)	0.3048	0.2995	0.2973	0.2920	0.2850	0.2772	0.2749	0.2707	0.2655	0.2626	0.2612	0.2602	0.2587	0.2587
Tier 2	Paving Machine (CAT AP1055)	0.0171	0.0154	0.0141	0.0124	0.0115	0.0093	0.0079	0.0060	0.0052	0.0044	0.0039	0.0036	0.0030	0.0030
Tier 2	Pier Drill (150TN crane)	0.0443	0.0412	0.0405	0.0363	0.0371	0.0349	0.0328	0.0292	0.0259	0.0245	0.0225	0.0198	0.0177	0.0177
Tier 2	Portable Generator (400DW)	0.0053	0.0050	0.0048	0.0046	0.0044	0.0041	0.0039	0.0037	0.0032	0.0028	0.0024	0.0021	0.0019	0.0019
Tier 2	Rail Machine	0.3138	0.3077	0.3052	0.2992	0.2911	0.2821	0.2795	0.2747	0.2688	0.2654	0.2638	0.2627	0.2609	0.2609
Tier 2	Rubber-Tire Crane (Terex AC100)	0.0586	0.0539	0.0516	0.0499	0.0477	0.0433	0.0402	0.0379	0.0323	0.0293	0.0274	0.0255	0.0229	0.0229
Tier 2	Scissor Lift (JLG 2630ES)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tier 2	Small Tandem Compactor (CB24B)	0.0094	0.0089	0.0086	0.0082	0.0079	0.0074	0.0069	0.0066	0.0057	0.0050	0.0042	0.0037	0.0034	0.0034
Tier 2	Trackhoe (PC200)	0.0281	0.0248	0.0226	0.0210	0.0194	0.0169	0.0157	0.0146	0.0129	0.0121	0.0115	0.0111	0.0109	0.0109
Tier 2	Trencher (CAT T9)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	EMFAC2014													
On-Road/On-Site Equipment	PM10 Emission Factors (lb/hr)													
ID Description	Equipment ID	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Pickup Truck (F250)	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011
	Boom Truck	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
	Concrete Delivery Truck	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
	Concrete Haul Truck (Mack MHD)	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
	Concrete Pump Truck	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
	Concrete Truck (Terex FD4000)	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
	Delivery Truck (semi)	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
	Flat Bed Truck (1TN)	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
	Forklift Boom Truck (G10-55A)	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
	Form Truck (Mack Granite)	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
	Haul Truck (Mack Granite)	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
	Haul Truck (Mack Med. Duty)	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
	Haul Truck (semi)	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
	Mechanic Truck (1TN)	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
	Mechanic Truck (2TN)	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
	Precast Delivery Truck (semi)	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
	Pump Truck	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
	Rail Delivery Truck	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
	Seed Truck	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
	Steel Delivery Truck	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
	Stone Haul Truck (Mack Med. Duty)	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
	Striping Truck (2.5TN)	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
	Water Truck (2.5TN)	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
	Work Truck (2.5TN)	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
	Man Lift (Versalift VO-355-MHI)	0.0031	0.0026	0.0025	0.0022	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020

	EMFAC2014													
On-Road/Off-Site Equipment	PM10 Emission Factors (lb/mi)													
ID Description	Equipment ID	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Worker Trips	Employee_Vehicles	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Material Deliveries	Material_Delivery	0.0008	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007
Concrete Deliveries	Concrete_Delivery	0.0008	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007
Base Material Deliveries	Base_Delivery	0.0008	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007
Asphalt Deliveries	Asphalt_Delivery	0.0008	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007
Demolition Hauling	Demolition_Hauling	0.0008	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007

Construction_Emissions_Inventory.xlsx EquipData

Attachment F.1.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions

- Pollutants – ROG Emission Factors
  - Without Mitigation
  - With Mitigation

Attachment F.1.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions

- Pollutants – SOx Emission Factors
  - Without Mitigation
  - With Mitigation

LAX Landside Access Modernization Program Project, Final EIR
Equipment specifications and emission factors reference

Emissions Reduction from Alternative Fuel: 0%

OFFROAD2007

Off-Road/On-Site Equipment — SOx Emission Factors (lb/hr)

ID	Backup EPA Tier	Equipment ID	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Tier 2	Backhoe (CAT 416)	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004
	Tier 2	Bobcat S650	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003
	Tier 2	Compactor (CAT 815)	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008
	Tier 2	Compactor (CAT 825)	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008
	Tier 2	Roller (CAT CB564D)	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
	Tier 2	Roller (Hamm 3520 single)	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009
	Tier 2	Crane (Terex Explorer 5800)	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Tier 2	Curb Paver (Gomaco Comm. III)	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009
	Tier 2	Dozer (CAT D6)	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011
	Tier 2	Excavator (CAT 385)	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021
	Tier 2	Generators (400A)	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Tier 2	Grader (CAT 12)	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
	Tier 2	Grader (CAT 14)	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
	Tier 2	Hand Paint Cart	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Tier 2	Loader (CAT 914G)	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004
	Tier 2	Milling Machine (CAT PM-200)	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024
	Tier 2	Paving Machine (CAT AP1055)	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011
	Tier 2	Per Drill (1907N crane)	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017
	Tier 2	Portable Generator (400W)	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Tier 2	Rail Machine	0.0028	0.0028	0.0028	0.0028	0.0028	0.0028	0.0028	0.0028	0.0028	0.0028	0.0028	0.0028	0.0028	0.0028
	Tier 2	Rubber-Tire Crane (Terex AC100)	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014
	Tier 2	Scissor Lift (JLG 2630ES)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Tier 2	Small Tandem Compactor (CB24B)	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Tier 2	Trackhoe (PC200)	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007
	Tier 2	Trencher (CAT T9)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

EMFAC2014

On-Road/On-Site Equipment — SOx Emission Factors (lb/hr)

ID	Description	Equipment ID	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
		Pickup Truck (F250)	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
		Boom Truck	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Concrete Delivery Truck	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Concrete Haul Truck (Mack MHD)	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Concrete Pump Truck	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Concrete Truck (Terex FD4000)	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Delivery Truck (semi)	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Flat Bed Truck (1TN)	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Forklift Boom Truck (G10-55A)	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Form Truck (Mack Granite)	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Haul Truck (Mack Granite)	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Haul Truck (Mack Med. Duty)	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Haul Truck (semi)	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Mechanic Truck (1TN)	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Mechanic Truck (2TN)	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Precast Delivery Truck (semi)	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Pump Truck	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Rail Delivery Truck	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Seed Truck	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Steel Delivery Truck	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Stone Haul Truck (Mack Med. Duty)	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Striping Truck (2.5TN)	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Water Truck (2.5TN)	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Work Truck (2.5TN)	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
		Man Lift (Versalift VO-355-MHI)	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002

EMFAC2014

On-Road/Off-Site Equipment — SOx Emission Factors (lb/mi)

ID	Description	Equipment ID	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Worker Trips	Employee_Vehicles	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Material Deliveries	Material_Delivery	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Concrete Deliveries	Concrete_Delivery	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Base Material Deliveries	Base_Delivery	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Asphalt Deliveries	Asphalt_Delivery	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Demolition Hauling	Demolition_Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Construction_Emissions_Inventory.xlsx — EquipData

LAX Landside Access Modernization Program Project, Final EIR

LAX Landside Access Modernization Program Project, Final EIR
Equipment specifications and emission factors reference

Emissions Reduction from Alternative Fuel: 0%

OFFROAD2011

Off-Road/On-Site Equipment — ROG Emission Factors (lb/hr)

ID	Backup EPA Tier	Equipment ID	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2029
	Tier 2	Backhoe (CAT 416)	0.0223	0.0202	0.0182	0.0165	0.0152	0.0132	0.0123	0.0116	0.0103	0.0099	0.0094	0.0092	0.0090	0.0090
	Tier 2	Bobcat S650	0.0218	0.0190	0.0171	0.0155	0.0142	0.0124	0.0116	0.0109	0.0097	0.0093	0.0089	0.0086	0.0085	0.0085
	Tier 2	Compactor (CAT 815)	0.0375	0.0335	0.0311	0.0291	0.0283	0.0252	0.0234	0.0228	0.0210	0.0198	0.0191	0.0188	0.0188	0.0188
	Tier 2	Compactor (CAT 825)	0.0375	0.0335	0.0311	0.0291	0.0283	0.0252	0.0234	0.0228	0.0210	0.0198	0.0191	0.0188	0.0188	0.0188
	Tier 2	Roller (CAT CB564D)	0.0358	0.0300	0.0277	0.0255	0.0239	0.0206	0.0189	0.0181	0.0160	0.0150	0.0143	0.0137	0.0132	0.0132
	Tier 2	Roller (Hamm 3520 single)	0.0370	0.0289	0.0263	0.0259	0.0254	0.0224	0.0215	0.0208	0.0196	0.0190	0.0181	0.0179	0.0173	0.0173
	Tier 2	Crane (Terex Explorer 5800)	0.0711	0.0670	0.0668	0.0658	0.0652	0.0608	0.0584	0.0544	0.0489	0.0485	0.0462	0.0430	0.0400	0.0400
	Tier 2	Curb Paver (Gomaco Comm. III)	0.0464	0.0402	0.0379	0.0346	0.0322	0.0256	0.0235	0.0222	0.0197	0.0174	0.0169	0.0161	0.0152	0.0152
	Tier 2	Dozer (CAT D6)	0.0434	0.0405	0.0378	0.0351	0.0332	0.0287	0.0266	0.0258	0.0221	0.0213	0.0213	0.0207	0.0205	0.0205
	Tier 2	Excavator (CAT 385)	0.0959	0.0883	0.0857	0.0599	0.0511	0.0478	0.0459	0.0432	0.0400	0.0400	0.0383	0.0343	0.0343	0.0343
	Tier 2	Generators (400A)	0.0071	0.0067	0.0066	0.0063	0.0061	0.0057	0.0055	0.0054	0.0048	0.0044	0.0039	0.0037	0.0035	0.0035
	Tier 2	Grader (CAT 12)	0.0883	0.0639	0.0615	0.0578	0.0547	0.0486	0.0460	0.0434	0.0386	0.0363	0.0333	0.0315	0.0292	0.0292
	Tier 2	Grader (CAT 14)	0.0883	0.0639	0.0615	0.0578	0.0547	0.0486	0.0460	0.0434	0.0386	0.0363	0.0333	0.0315	0.0292	0.0292
	Tier 2	Hand Paint Cart	0.0192	0.0181	0.0178	0.0171	0.0165	0.0155	0.0147	0.0144	0.0128	0.0119	0.0105	0.0099	0.0094	0.0094
	Tier 2	Loader (CAT 914G)	0.0442	0.0404	0.0376	0.0350	0.0326	0.0283	0.0272	0.0259	0.0229	0.0212	0.0203	0.0196	0.0185	0.0185
	Tier 2	Milling Machine (CAT PM-200)	0.1034	0.0971	0.0952	0.0895	0.0808	0.0710	0.0885	0.0617	0.0537	0.0505	0.0493	0.0486	0.0468	0.0468
	Tier 2	Paving Machine (CAT AP1055)	0.0295	0.0274	0.0260	0.0240	0.0228	0.0200	0.0182	0.0154	0.0146	0.0138	0.0136	0.0134	0.0128	0.0128
	Tier 2	Per Drill (1907N crane)	0.0711	0.0670	0.0668	0.0658	0.0652	0.0608	0.0584	0.0544	0.0489	0.0485	0.0462	0.0430	0.0400	0.0400
	Tier 2	Portable Generator (400W)	0.0114	0.0107	0.0105	0.0101	0.0098	0.0092	0.0087	0.0086	0.0076	0.0070	0.0063	0.0059	0.0056	0.0056
	Tier 2	Rail Machine	0.1187	0.1115	0.1093	0.1027	0.0928	0.0815	0.0786	0.0708	0.0616	0.0580	0.0566	0.0558	0.0537	0.0537
	Tier 2	Rubber-Tire Crane (Terex AC100)	0.0922	0.0861	0.0834	0.0816	0.0792	0.0734	0.0695	0.0668	0.0596	0.0562	0.0539	0.0517	0.0484	0.0484
	Tier 2	Scissor Lift (JLG 2630ES)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Tier 2	Small Tandem Compactor (CB24B)	0.0203	0.0191	0.0188	0.0181	0.0174	0.0164	0.0156	0.0153	0.0136	0.0125	0.0112	0.0105	0.0099	0.0099
	Tier 2	Trackhoe (PC200)	0.0316	0.0277	0.0253	0.0235	0.0217	0.0188	0.0173	0.0160	0.0141	0.0131	0.0124	0.0121	0.0119	0.0119
	Tier 2	Trencher (CAT T9)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

EMFAC2014

On-Road/On-Site Equipment — ROG Emission Factors (lb/hr)

ID	Description	Equipment ID	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
		Pickup Truck (F250)	0.0017	0.0015	0.0014	0.0012	0.0011	0.0010	0.0009	0.0009	0.0008	0.0008	0.0007	0.0007	0.0006	0.0006
		Boom Truck	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
		Concrete Delivery Truck	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
		Concrete Haul Truck (Mack MHD)	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
		Concrete Pump Truck	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
		Concrete Truck (Terex FD4000)	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
		Delivery Truck (semi)	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
		Flat Bed Truck (1TN)	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
		Forklift Boom Truck (G 10-55A)	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
		Form Truck (Mack Granite)	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
		Haul Truck (Mack Granite)	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
		Haul Truck (Mack Med. Duty)	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
		Haul Truck (semi)	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
		Mechanic Truck (1TN)	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
		Mechanic Truck (2TN)	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
		Precast Delivery Truck (semi)	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
		Pump Truck	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
		Rail Delivery Truck	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
		Seed Truck	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
		Steel Delivery Truck	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
		Stone Haul Truck (Mack Med. Duty)	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
		Striping Truck (2.5TN)	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
		Water Truck (2.5TN)	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
		Work Truck (2.5TN)	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
		Man Lift (Versalift VO-355-MHI)	0.0073	0.0051	0.0048	0.0037	0.0036	0.0034	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023

EMFAC2014

On-Road/Off-Site Equipment — ROG Emission Factors (lb/mi)

ID	Description	Equipment ID	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Worker Trips	Employee_Vehicles	0.0001	0.0001	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Material Deliveries	Material_Delivery	0.0005	0.0003	0.0003	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Concrete Deliveries	Concrete_Delivery	0.0006	0.0004	0.0004	0.0003	0.0003	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
	Base Material Deliveries	Base_Delivery	0.0005	0.0003	0.0003	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Asphalt Deliveries	Asphalt_Delivery	0.0005	0.0003	0.0003	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Demolition Hauling	Demolition_Hauling	0.0005	0.0003	0.0003	0.0002	0.0002	0.0002	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002

Construction_Emissions_Inventory.xlsx — EquipData

LAX Landside Access Modernization Program Project, Final EIR

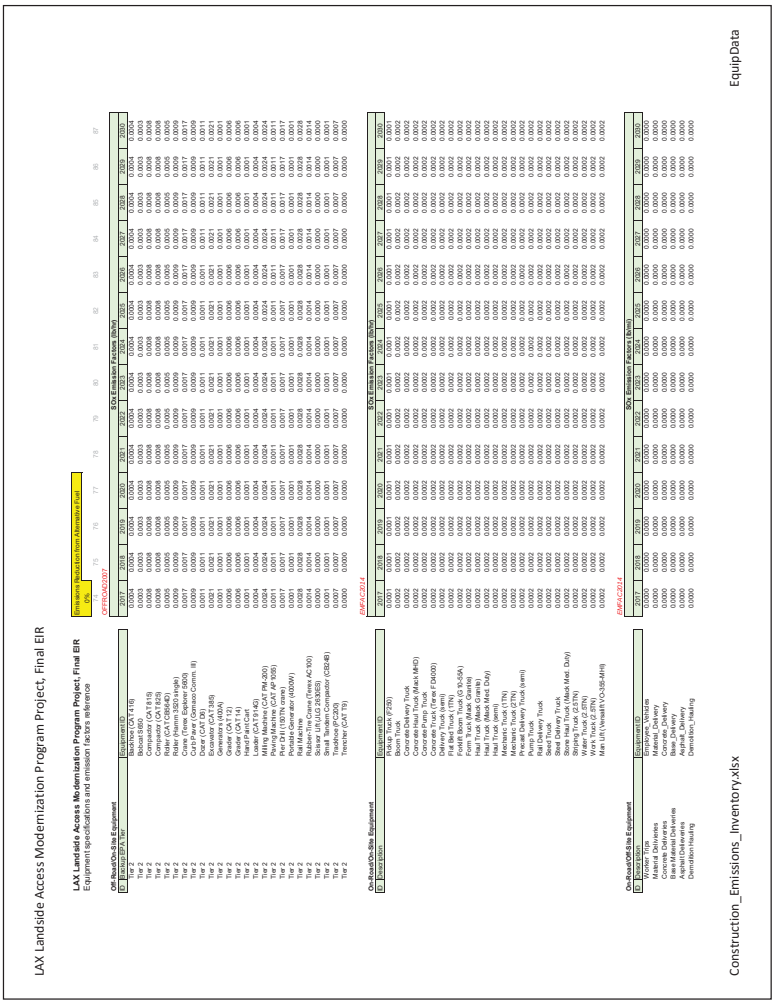
LAX Landside Access Modernization Program Project, Final EIR
Equipment specifications and emission factors reference

Emissions Reduction from Alternative Fuel: 27%

OFFROAD2011

Off-Road/On-Site Equipment — ROG Emission Factors (lb/hr)

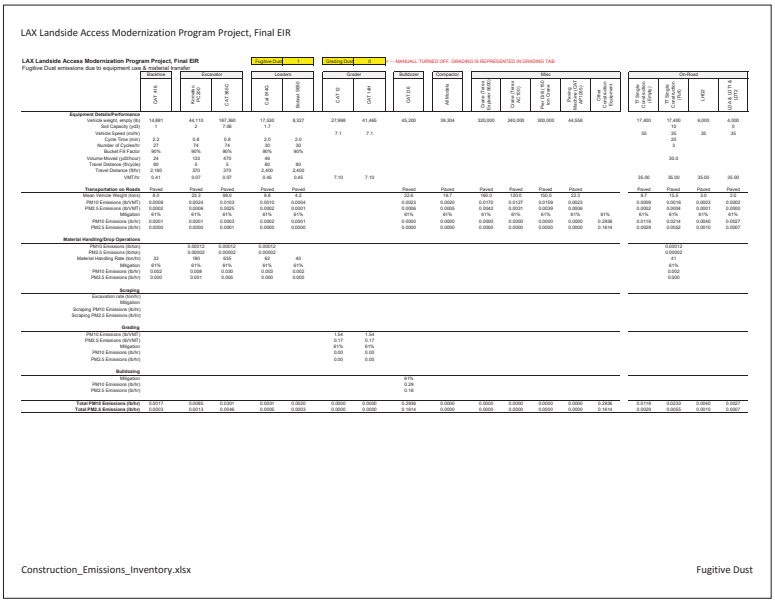
ID	Backup EPA Tier	Equipment ID	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2029
	Tier 2	Backhoe (CAT 416)	0.0058	0.0058	0.0058	0.0058	0.0058	0.0058	0.0058	0.0058	0.0058	0.0058	0.0058	0.0058	0.0058	0.0058
	Tier 2	Bobcat S650	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054
	Tier 2	Compactor (CAT 815)	0.0146	0.0146	0.0146	0.0146	0.0146	0.0146	0.0146	0.0146	0.0145	0.0140	0.0137	0.0137	0.0137	0.0137
	Tier 2	Compactor (CAT 825)	0.0146	0.0146	0.0146	0.0146	0.0146	0.0146	0.0146	0.0146	0.0145	0.0140	0.0137	0.0137	0.0137	0.0137
	Tier 2	Roller (CAT CB564D)	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071
	Tier 2	Roller (Hamm 3520 single)	0.0142	0.0142	0.0142	0.0142	0.0142	0.0142	0.0142	0.0142	0.0139	0.0132	0.0131	0.0126	0.0126	0.0126
	Tier 2	Crane (Terex Explorer 5800)	0.0301	0.0301	0.0301	0.0301	0.0301	0.0301	0.0301	0.0301	0.0301	0.0301	0.0301	0.0301	0.0292	0.0292
	Tier 2	Curb Paver (Gomaco Comm. III)	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0127	0.0123	0.0118	0.0111	0.0111
	Tier 2	Dozer (CAT D6)	0.0175	0.0175	0.0175	0.0175	0.0175	0.0175	0.0175	0.0175	0.0161	0.0156	0.0156	0.0151	0.0150	0.0150
	Tier 2	Excavator (

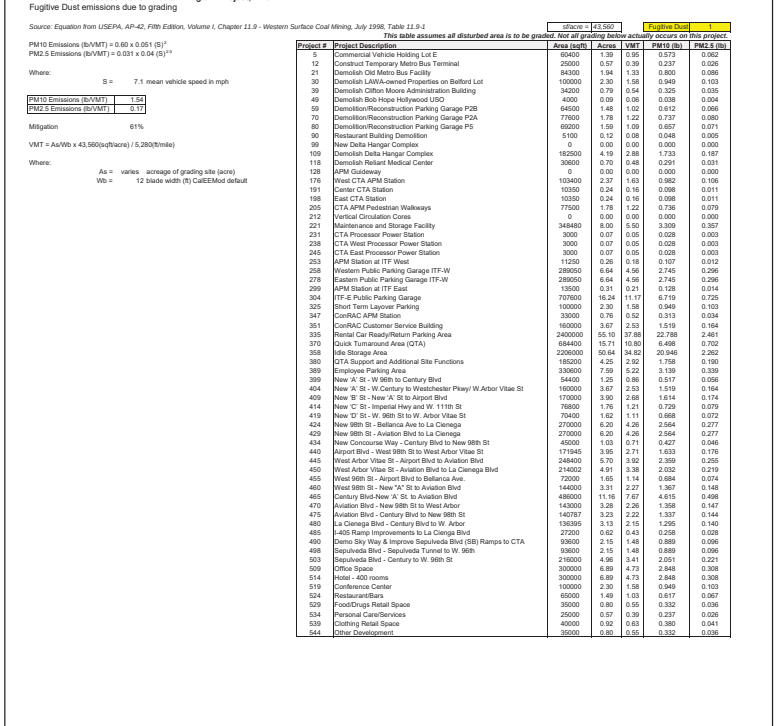


Attachment F.1.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions

- Fugitive Dust Emissions
  - Emissions due to Demolition
  - Emissions due to Equipment
  - Emissions due to Grading
  - *Emissions due to Batching*





LAX Landside Access Modernization Program Project Final EIR

Batch Plant Permit Consistency Analysis

	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19
Assumptions	0	0	2,891	3,325	2,891	3,180	5,814	7,268	10,076	11,184	11,093	10,167	11,719	11,194	6,736	10,276	9,722	19,073	28,048	30,624

Delivery logistics provided in Comico Construction Assumptions PDF is accurate
All concrete deliveries occur during the construction phase of each project componen

Project #	Project Component	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19
5	Commercial Vehicle Holding Lot E	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12	Construct Temporary Metro Bus Terminal	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
21	Demolish Citi Metro Bus Facility	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
30	Demolish LAWA-owned Properties on Belford Lot	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
39	Demolish Clifton Moore Administration Building	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
49	Demolish Bob Hope Hollywood USO	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
59	Demolition/Reconstruction Parking Garage P2B	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
70	Demolition/Reconstruction Parking Garage P2A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
80	Demolition/Reconstruction Parking Garage P5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
90	Restaurant Building Demolition	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
99	New Delta Hangar Complex	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
109	Demolish Delta Hangar Complex	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
118	Demolish Reliant Medical Center	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
128	APM Guideway	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	APM Guideway Seg 1 - Century Blvd to MSF	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	APM Guideway Seg 2 - MSF to CenRAC	0.00%	0.00%	0.00%	0.00%	0.00%	1.52%	15.91%	16.67%	17.42%	15.15%	17.42%	15.91%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CTA West APM Guideway Seg 3A -Theme Bldg to West Processor	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CTA West APM Guideway Seg 3A to P2A Garage	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	6.25%	27.50%	26.25%	28.75%	11.25%	0.00%	0.00%	0.00%
	CTA East Processor Power Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	17.50%	28.75%	28.75%
	APM Station at ITF West	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	7.60%	9.20%	8.40%	8.80%	9.20%	8.80%	9.20%	8.80%	8.40%	9.20%	8.00%	5.20%	0.00%	0.00%
	Eastern Public Parking Garage ITF-W	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	6.67%	1.40%	1.53%
	Eastern Public Parking Garage ITF-W	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	APM Station at ITF East	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	ITF-E Public Parking Garage	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Short Term Layover Parking	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CenRAC APM Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CenRAC Customer Service Building	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Rental Car Ready/Return Parking Area	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Quick Turnaround Area (QTA)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Hit Storage Area	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	QTA Support and Additional Site Functions	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Employee Parking Area	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	New 'A' St - W 96th to Century Blvd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	New 'A' St - W Century to Westchester Pkwy/ W Arbor Vitae St	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	New 'B' St - New 'A' St to Airport Blvd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	New 'C' St - Imperial Hwy and W. 111th St	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	New 'D' St - W. 96th St to W. Arbor Vitae St	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	New 98th St - Bellanca Ave to La Cienega	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	New 98th St - Aviation Blvd to La Cienega	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	New Concourse Way - Century Blvd to New 98th St	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Airport Blvd - West 98th St to West Arbor Vitae St	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	West Arbor Vitae St - Airport Blvd to Aviation Blvd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	West Arbor Vitae St - Aviation Blvd to La Cienega Blvd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	West 96th St - Airport Blvd to Bellanca Ave.	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	West 96th St - New 'A' St to Aviation Blvd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Century Blvd -New 'A' St. to Aviation Blvd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Aviation Blvd - New 96th St to West Arbor	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Aviation Blvd - Century Blvd to New 98th St	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	La Cienega Blvd - Century Blvd to W. Arbor	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	I-405 Ramp Improvements to La Cienga Blvd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Demo Sky Way & Improve Sepulveda Blvd (SB) Ramps to CTA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Sepulveda Blvd - Sepulveda Tunnel to W. 96th	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Sepulveda Blvd - Century to W. 96th St	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Office Space	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Hotel - 400 rooms	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Conference Center	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Restaurant/Bars	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Food/Drugs Retail Space	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Personal Care/Services	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Clothing Retail Space	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Other Development	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

LAX Landside Access Modernization Program Project, Final EIR

Fugitive Dust emissions due to concrete batching

Concrete Batching (T.13.2 AP-42)				*Aggregate Handling And Storage Piles (13.2.4 AP-42) (Equations from in T.13.2 AP-42 Table 13.2.-1 notes)*			
Process	**Uncontrolled**	**Control Efficiency**	**Controlled**		**Uncontrolled**	**Control Efficiency**	**Controlled**
Aggregate Transfer	0.0033	70.0%	0.00099000	lb PM10/ton agg	0.000499714	70.0%	0.00014991	lb PM2.5/ton agg
Sand Transfer	0.00099	0.0%	0.00099000	lb PM10/ton sand	0.000149914	0.0%	0.00014991	lb PM2.5/ton sand
Sand / Aggregate Stockpile Loss to Wind			0.00012057	lb PM10/ton agg & sand			0.00001826	lb PM2.5/ton agg & sand
Aggregate & Sand Transfer from Stockpile	Average of Aggregate & Sand Transfers -->		0.00099000	lb PM10/ton agg & sand	Average of Aggregate & Sand Transfers -->		0.00014991	lb PM2.5/ton agg & sand
Fly Ash/Cement Pneumatic Unloading to Storage Silo	0.46	99.0%	0.00460000	lb PM10/ton cement	0.069657143	99.0%	0.00069657	lb PM2.5/ton cement
Fly Ash/Cement Supplement Unloading to Storage Silo	1.1	99.0%	0.01100000	lb PM10/ton supplement	0.166571429	99.0%	0.00166571	lb PM2.5/ton supplement
Weigh Hopper Loading	0.0024	99.0%	0.00002400	lb PM10/ton total	0.000363429	99.0%	0.00000363	lb PM2.5/ton total
Mixer Loading	0.134	99.0%	0.00134000	lb PM10/ton total	0.020291429	99.0%	0.00020291	lb PM2.5/ton total
	LAWA fits PM10 per ton of concrete plant-wide emission factor:		*0.003844*		*LAWA fits PM2.5 per ton of concrete plant-wide emission factor:*		*0.000582*	

Aggregate Handling And Storage Piles (T.13.2.4 AP-42)				lb/cy	ton/cy
$E = k * (0.0032) * ((U/5)^{1.3}) / ((M/2)^{1.4})$	$E =$	0.00101057	*lb PM10/ton stored material in pile*	Course Aggregate (lb/CY)	1,865	0.9325
E = Emission factor (pound (lb)/ton)	$E =$	0.00000826	*lb PM2.5/ton stored material in pile*	Sand (lb/CY)	1,428	0.714
k = particle size multiplier (dimensionless)	*k for <10 um*	*k for <2.5 um*		Cement (lb/CY)	491	0.2455
U = mean wind speed (miles per hour (mph))	0.5	0.53		Cement Supplement (lb/CY)	73	0.0365
M = material moisture content (%)	6.2	mph		Water (lb)	167	0.0836
	12	%		Total:	4,024	2.0121

PM10 emissions, plant-wide	0.003384370 lb of fugitive dust per ton of concrete (controlled)
PM2.5 emissions, plant-wide	0.000582105 lb of fugitive dust per ton of concrete (controlled)

Source: Based on AP-42 methodology and parameters contained in the LAWA Permit Construction and Operation Compliance Manual

LAWA Permit Specific (not AP-42 Standard)
**Inside of 99% Efficiency Baghouse*

LAX Landside Access Modernization Program Project Final EIR

Batch Plant Permit Consistency Analysis

	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21
Assumptions	36,730	33,777	36,198	34,552	22,390	11,125	11,461	11,981	23,561	38,996	38,067	39,667	41,511	42,871	40,762	44,368	58,597	55,934	61,261	55,934

Delivery logistics provided in Comico Construction Assumptions PDF is accurate
All concrete deliveries occur during the construction phase of each project componen

Project #	Project Component	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21
5	Commercial Vehicle Holding Lot E	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12	Construct Temporary Metro Bus Terminal	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
21	Demolish Citi Metro Bus Facility	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
30	Demolish LAWA-owned Properties on Belford Lot	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
39	Demolish Clifton Moore Administration Building	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
49	Demolish Bob Hope Hollywood USO	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
59	Demolition/Reconstruction Parking Garage P2B	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.92%	8.33%	8.71%	7.95%	8.33%	8.33%	7.95%	8.71%	7.95%	
70	Demolition/Reconstruction Parking Garage P2A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
80	Demolition/Reconstruction Parking Garage P5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
90	Restaurant Building Demolition	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
99	New Delta Hangar Complex	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
109	Demolish Delta Hangar Complex	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
118	Demolish Reliant Medical Center	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
128	APM Guideway	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	APM Guideway Seg 1 - Century Blvd to MSF	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	APM Guideway Seg 2 - MSF to CenRAC	10.10%	11.62%	11.11%	10.61%	4.55%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CTA West APM Guideway Seg 3A -Theme Bldg to West Processor	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CTA West APM Guideway Seg 3A to P2A Garage	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CTA West APM Guideway Seg 3A P2A Garage to Theme	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	APM Guideway Seg 3B-Kiosk to Theme Building (CTA East)	6.90%	7.93%	7.59%	7.24%	7.59%	7.24%	7.59%	7.93%	6.90%	7.59%	7.59%	7.24%	6.10%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	APM Guideway Seg 4-Century Blvd to Krotzat Sepulveda	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	8.71%	9.13%	9.54%	8.71%	9.13%	9.13%	8.71%	9.54%	8.71%	0.00%
176	West CTA APM Station	4.74%	2.84%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
191	Center CTA Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	9.30%	24.42%	25.58%	26.74%	13.95%	0.00%	0.00%	0.00%	0.00%	0.00%
198	East CTA Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	9.30%	24.42%	25.58%	26.74%	13.95%	0.00%	0.00%	0.00%	0.00%	0.00%
205	CTA APM Pedestrian Walkways	5.15%	5.93%	5.67%	5.41%	2.32%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
212	Vertical Circulation Cores	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
221	Maintenance and Storage Facility	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
231	CTA Processor Power Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.00%	27.50%	27.50%	25.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
238	CTA West Processor Power Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
245	CTA East Processor Power Station	25.00%	28.75%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
253	APM Station at ITF West	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

LAX Landside Access Modernization Program Project, Final EIR

LAX Landside Access Modernization Program Project Final EIR

Batch Plant Permit Consistency Analysis

	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26
Assumptions:	5,446	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Delivery logistics provided in Comrica Construction Assumptions PDF is accurate

All concrete deliveries occur during the construction phase of each project componen

Project #	Project Component	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26
5	Commercial Vehicle Holding Lot E	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12	Construct Temporary Metro Bus Terminal	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
21	Demolish Old Metro Bus Facility	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
30	Demolish LAWA-owned Properties on Belford Lot	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
39	Demolish Clifton Moore Administration Building	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
49	Demolish Bob Hope Hollywood USO	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
59	Demolition /Reconstruction Parking Garage P2B	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
70	Demolition /Reconstruction Parking Garage P2A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
80	Demolition /Reconstruction Parking Garage P5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
90	Restaurant Building Demolition	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
99	New Delta Hangar Complex	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
109	Demolish Delta Hangar Complex	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
118	Demolish Reliant Medical Center	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
128	APM Guideway	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	APM Guideway Seg 1 - Century Blvd to MSF	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	APM Guideway Seg 2 - MSF to CenRAC	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CTA West APM Guideway Seg 3A Theme Bldg to West Processor	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CTA West APM Guideway Seg 3A to P2A Garage	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CTA West APM Guideway Seg 3A P2A Garage to Theme	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	APM Guideway Seg 3B Knotto Theme Building (CTA East)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	APM Guideway Seg 4-Century Blvd to Knotat Sepulveda	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
176	West CTA APM Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
191	Center CTA Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
198	East CTA Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
205	CTA APM Pedestrian Walkways	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
212	Vertical Circulation Cores	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
221	Maintenance and Storage Facility	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
231	CTA Processor Power Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
238	CTA West Processor Power Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
245	CTA East Processor Power Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
253	APM Station at ITF West	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
258	Western Public Parking Garage ITF-W	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
278	Eastern Public Parking Garage ITF-W	3.26%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
299	APM Station at ITF East	3.12%	3.58%	3.43%	3.27%	3.43%	3.43%	3.43%	3.43%	3.27%	3.43%	3.58%	3.27%	3.12%	3.58%	3.43%	3.27%	3.12%	3.58%	3.43%	3.27%
304	ITF-E Public Parking Garage	3.12%	3.58%	3.43%	3.27%	3.43%	3.43%	3.43%	3.43%	3.27%	3.43%	3.58%	3.27%	3.12%	3.58%	3.43%	3.27%	3.12%	3.58%	3.43%	3.27%
325	Short Term Layover Parking	3.12%	3.58%	3.43%	3.27%	3.43%	3.43%	3.43%	3.43%	3.27%	3.43%	3.58%	3.27%	3.12%	3.58%	3.43%	3.27%	3.12%	3.58%	3.43%	3.27%
347	CenRAC APM Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
351	CenRAC Customer Service Building	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
335	Rental Car Ready/Return Parking Area	3.92%	4.31%	4.12%	4.31%	4.12%	4.31%	4.12%	4.31%	3.92%	4.31%	4.12%	4.31%	3.92%	4.31%	4.12%	4.31%	3.92%	4.31%	4.12%	4.31%
370	Quick Turnaround Area (QTA)	3.37%	3.87%	3.70%	3.54%	3.70%	3.70%	3.70%	3.54%	3.70%	3.87%	3.54%	3.37%	3.87%	3.54%	3.37%	3.87%	3.54%	3.87%	3.70%	3.54%
358	Bike Storage Area	4.55%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
380	QTA Support and Additional Site Functions	6.62%	7.62%	7.28%	6.95%	7.28%	7.28%	7.28%	7.28%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
389	Employee Parking Area	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
399	New 'A' St - W 96th to Century Blvd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
404	New 'A' St - W Century to Westchester Pkwy/ W Arbor Vitae St	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
409	New 'B' St - New 'A' St to Airport Blvd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
414	New 'C' St - Imperial Hwy and W. 111th St	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
419	New 'D' St - W. 96th St to W. Arbor Vitae St	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
424	New 98th St - Bellanca Ave to La Cienega	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
429	New 98th St - Aviation Blvd to La Cienega	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
434	New Concourse Way - Century Blvd to New 98th St	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
440	Airport Blvd - West 98th St to West Arbor Vitae St	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
445	West Arbor Vitae St - Airport Blvd to Aviation Blvd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
450	West Arbor Vitae St - Aviation Blvd to La Cienega Blvd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
455	West 96th St - Airport Blvd to Bellanca Ave.	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
460	West 98th St - New 'A' St to Aviation Blvd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
465	Century Blvd- New 'A' St. to Aviation Blvd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
470	Aviation Blvd - New 98th St to West Arbor	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
475	Aviation Blvd - Century Blvd to New 98th St	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
480	La Cienega Blvd - Century Blvd to W. Arbor	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
485	I-405 Ramp Improvements to La Cienga Blvd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
490	Demo Sky Way & Improve Sepulveda Blvd (SB) Ramps to CTA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
498	Sepulveda Blvd - Sepulveda Tunnel to W. 96th	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
503	Sepulveda Blvd - Century to W. 96th St	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
509	Office Space	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
514	Hotel - 400 rooms	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
519	Conference Center	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
524	Restaurant/Bars	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
529	Food/Drug/ Retail Space	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
534	Personal Care/Services	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
539	Clothing Retail Space	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
544	Other Development	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

LAX Landside Access Modernization Program Project, Final EIR

LAX Landside Access Modernization Program Project Final EIR

Batch Plant Permit Consistency Analysis

	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25
Assumptions:	44,614	34,571	31,906	29,262	29,413	19,253	19,253	19,253	19,680	22,898	21,745	22,203	21,146	23,616	20,413	21,385	21,385	20,413	22,357	21,385

Delivery logistics provided in Comrica Construction Assumptions PDF is accurate

All concrete deliveries occur during the construction phase of each project componer

Project #	Project Component	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25
5	Commercial Vehicle Holding Lot E	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12	Construct Temporary Metro Bus Terminal	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
21	Demolish Old Metro Bus Facility	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
30	Demolish LAWA-owned Properties on Belford Lot	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
39	Demolish Clifton Moore Administration Building	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
49	Demolish Bob Hope Hollywood USO	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
59	Demolition /Reconstruction Parking Garage P2B	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
70	Demolition /Reconstruction Parking Garage P2A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
80	Demolition /Reconstruction Parking Garage P5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
90	Restaurant Building Demolition	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
99	New Delta Hangar Complex	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
109	Demolish Delta Hangar Complex	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
118	Demolish Reliant Medical Center	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
128	APM Guideway	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	APM Guideway Seg 1 - Century Blvd to MSF	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	APM Guideway Seg 2 - MSF to CenRAC	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CTA West APM Guideway Seg 3A Theme Bldg to West Processor	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CTA West APM Guideway Seg 3A to P2A Garage	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CTA West APM Guideway Seg 3A P2A Garage to Theme	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	APM Guideway Seg 3B Knotto Theme Building (CTA East)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	APM Guideway Seg 4-Century Blvd to Knotat Sepulveda	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
176	West CTA APM Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
191	Center CTA Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
198	East CTA Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
205	CTA APM Pedestrian Walkways	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
212	Vertical Circulation Cores	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
221	Maintenance and Storage Facility	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
231	CTA Processor Power Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
238	CTA West Processor Power Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
245	CTA East Processor Power Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
253	APM Station at ITF West	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00

Attachment F.1.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions

• Summary

LAX Landside Access Modernization Program Project Final EIR

Batch Plant Permit Consistency Analysis

Assumptions:	Oct-27	Nov-27	Dec-27	Jan-28	Feb-28	Mar-28	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29	Apr-29	May-29
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Delivery logistics provided in Comico Construction Assumptions PDF is accurate

All concrete deliveries occur during the construction phase of each project component

Project #	Project Component	Oct-27	Nov-27	Dec-27	Jan-28	Feb-28	Mar-28	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29	Apr-29	May-29
5	Commercial Vehicle Holding Lot E	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12	Construct Temporary Metro Bus Terminal	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
21	Demolish Old Metro Bus Facility	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
30	Demolish LAWA-owned Properties on Belford Lot	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
39	Demolish Clifton Moore Administration Building	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
49	Demolish Bob Hope Hollywood USO	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
59	Demolition/Reconstruction Parking Garage P2B	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
70	Demolition/Reconstruction Parking Garage P2A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
80	Demolition/Reconstruction Parking Garage P5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
90	Restaurant Building Demolition	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
99	New Delta Hangar Complex	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
109	Demolish Delta Hangar Complex	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
118	Demolish Reliant Medical Center	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
128	APM Guideway	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	APM Guideway Seg 1 - Century Blvd to MSF	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	APM Guideway Seg 2 - MSF to ConRAC	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CTA West APM Guideway Seg 3A - Theme Bldg to West Processor	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CTA West APM Guideway Seg 3A to P2A Garage	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CTA West APM Guideway Seg 3A P2A Garage to Theme	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	APM Guideway Seg 3B -Knotto Theme Building (CTA East)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	APM Guideway Seg 4 -Century Blvd to Krut at Sepulveda	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
176	West CTA APM Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
191	Center CTA Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
198	East CTA Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
205	CTA APM Pedestrian Walkways	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
212	Vertical Circulation Cores	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
221	Maintenance and Storage Facility	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
231	CTA Processor Power Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
238	CTA West Processor Power Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
245	CTA East Processor Power Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
253	APM Station at ITF West	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
258	Western Public Parking Garage ITF-W	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
278	Eastern Public Parking Garage ITF-W	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
299	APM Station at ITF East	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
304	ITF-E Public Parking Garage	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
325	Short Term Layover Parking	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
347	ConRAC APM Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
351	ConRAC Customer Service Building	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
335	Rental Car Ready/Return Parking Area	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
370	Quick Turnaround Area (QTA)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
358	Idle Storage Area	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
380	QTA Support and Additional Site Functions	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
389	Employee Parking Area	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
399	New 'A' St - W 96th to Century Blvd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
404	New 'A' St - W Century to Westchester Pkwy/ W Arbor Vitae St	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
409	New 'B' St - New 'A' St to Airport Blvd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
414	New 'C' St - Imperial Hwy and W. 11 9th St	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
419	New 'D' St - W. 96th St to W. Arbor Vitae St	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
424	New 98th St - Bellanca Ave to La Cienega	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
429	New 98th St - Aviation Blvd to La Cienega	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
434	New Concourse Way - Century Blvd to New 98th St	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
440	Airport Blvd - West 98th St to West Arbor Vitae St	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
445	West Arbor Vitae St - Airport Blvd to Aviation Blvd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
450	West Arbor Vitae St - Aviation Blvd to La Cienega Blvd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
455	West 96th St - Airport Blvd to Bellanca Ave.	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
460	West 98th St - New "A" St to Aviation Blvd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
465	Century Blvd-New 'A' St to Aviation Blvd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
470	Aviation Blvd - New 98th St to West Arbor	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
475	Aviation Blvd - Century Blvd to New 98th St	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
480	La Cienega Blvd - Century Blvd to W. Arbor	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
485	I-405 Ramp Improvements to La Cienga Blvd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
490	Demo Sky Way & Improve Sepulveda Blvd (SB) Ramps to CTA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
498	Sepulveda Blvd - Sepulveda Tunnel to W. 96th	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
503	Sepulveda Blvd - Century to W. 96th St	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
509	Office Space	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
514	Hotel – 400 rooms	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
519	Conference Center	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
524	Restauran/Bars	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
529	Food/Drugs Retail Space	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
534	Personal Care Services	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
539	Clothing Retail Space	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
544	Other Development	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

LAX Landside Access Modernization Program Project, Final EIR

Emissions General Conformity Thresholds

Construction Emissions

		Year															Gen Conf	CEQA	Peak Yearly	Peak Yearly
Pollutant		2017	2018	2019	2020	2021	2022	2023	2024	2024	2024	2025	2026	2027	2028	2029	2030	de minimis	Threshold	Peak Daily	Peak Daily
CO2	MT/year	272	8,265	14,979	14,578	9,422	5,213	3,931	1,307	1,393	86	164	43	282	0	0	0			14,979	282
	Peak lbs/day	11,516	115,405	137,293	152,252	121,784	70,384	55,372	25,872	25,872	8,243	11,134	1,847	13,047	0	0	0			152,252	13,047
CO	Tons/year	0.8	23.7	38.7	33.8	21.6	11.2	9.3	2.7	2.9	0.2	0.4	0.1	0.5	0.0	0.0	0.0	100		38.7	0.5
	Peak lbs/day	32	306	338	321	257	136	123	60	60	17	22	3	21	0	0	0		550	338	22
ROG	Tons/year	0	6	7	6	4	2	1	0	0	0	0	0	0	0	0	0	10		6.7	0.1
	Peak lbs/day	9	88	56	58	39	26	12	4	4	2	2	1	4	0	0	0		75	88	4
NOX	Tons/year	2	37	71	65	36	17	9	3	3	0	0	0	1	0	0	0	10		70.6	0.5
	Peak lbs/day	66	463	595	631	440	224	135	48	48	23	26	3	22	0	0	0		100	631	26
SOX	Tons/year	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100		0.2	0.0
	Peak lbs/day	0	1	1	2	1	1	1	0	0	0	0	0	0	0	0	0		150	2	0
PM10	Tons/year	0	3	5	5	3	2	1	0	0	0	0	0	0	0	0	0	100		5.1	0.2
	Peak lbs/day	8	37	43	43	33	20	17	8	8	7	9	0	7	0	0	0		150	43	9
PM2.5	Tons/year	0	2	3	3	2	1	1	0	0	0	0	0	0	0	0	0	70		3.4	0.1
	Peak lbs/day	5	24	28	29	21	12	9	4	4	4	5	0	4	0	0	0		55	29	5
		Phase 1								Combined	Phase 2									Phase 1	Phase 2

LAX Landside Access Modernization Program Project Final EIR

Batch Plant Permit Consistency Analysis

Assumptions:	Jun-29	Jul-29	Aug-29	Sep-29	Oct-29	Nov-29	Dec-29	Jan-30
	0	0	0	0	0	0	0	0

Delivery logistics provided in Comico Construction Assumptions PDF is accurate

All concrete deliveries occur during the construction phase of each project component

Project #	Project Component	Jun-29	Jul-29	Aug-29	Sep-29	Oct-29	Nov-29	Dec-29	Jan-30
5	Commercial Vehicle Holding Lot E	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12	Construct Temporary Metro Bus Terminal	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
21	Demolish Old Metro Bus Facility	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
30	Demolish LAWA-owned Properties on Belford Lot	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
39	Demolish Clifton Moore Administration Building	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
49	Demolish Bob Hope Hollywood USO	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
59	Demolition/Reconstruction Parking Garage P2B	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
70	Demolition/Reconstruction Parking Garage P2A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
80	Demolition/Reconstruction Parking Garage P5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
90	Restaurant Building Demolition	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
99	New Delta Hangar Complex	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
109	Demolish Delta Hangar Complex	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
118	Demolish Reliant Medical Center	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
128	APM Guideway	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	APM Guideway Seg 1 - Century Blvd to MSF	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	APM Guideway Seg 2 - MSF to ConRAC	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CTA West APM Guideway Seg 3A - Theme Bldg to West Processor	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CTA West APM Guideway Seg 3A to P2A Garage	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CTA West APM Guideway Seg 3A P2A Garage to Theme	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	APM Guideway Seg 3B -Knotto Theme Building (CTA East)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	APM Guideway Seg 4 -Century Blvd to Krut at Sepulveda	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
176	West CTA APM Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
191	Center CTA Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
198	East CTA Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
205	CTA APM Pedestrian Walkways	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
212	Vertical Circulation Cores	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
221	Maintenance and Storage Facility	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
231	CTA Processor Power Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
238	CTA West Processor Power Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
245	CTA East Processor Power Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
253	APM Station at ITF West	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
258	Western Public Parking Garage ITF-W	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
278	Eastern Public Parking Garage ITF-W	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
299	APM Station at ITF East	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
304	ITF-E Public Parking Garage	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
325	Short Term Layover Parking	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
347	ConRAC APM Station	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
351	ConRAC Customer Service Building	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
335	Rental Car Ready/Return Parking Area	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
370	Quick Turnaround Area (QTA)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
358	Idle Storage Area	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
380	QTA Support and Additional Site Functions	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Attachment F.1.2

Construction Concentrations– Criteria Pollutants

- Proposed Project without Mitigation

LAX Landside Access Modernization Program Project, Final EIR
Emissions General Conformity Thresholds

Construction Emissions

		Year															Gen Conf	CEQA	Peak Yearly	Peak Yearly
Pollutant		2017	2018	2019	2020	2021	2022	2023	2024	2024	2024	2025	2026	2027	2028	2029	2030	de minimis	Threshold	Peak Daily	Peak Daily
CO2	MT/year	183	6,152	10,717	10,261	6,868	3,757	2,895	991	1,047	56	108	29	189	0	0	0			10,717	189
	Peak lbs/day	7,858	86,279	98,066	105,995	88,012	50,406	38,939	19,941	19,941	5,408	7,300	1,316	8,634	0	0	0			105,995	8,634
CO	Tons/year	0.7	20.8	33.0	28.5	18.6	9.6	8.0	2.4	2.5	0.1	0.3	0.1	0.4	0.0	0.0	0.0	100		33.0	0.4
	Peak lbs/day	26	270	292	268	220	117	103	52	52	13	18	2	17	0	0	0		550	292	18
ROG	Tons/year	0	5	4	4	2	1	0	0	0	0	0	0	0	0	0	0	10		4.5	0.1
	Peak lbs/day	6	81	34	34	22	17	7	3	3	1	2	0	3	0	0	0		75	81	3
NOX	Tons/year	1	18	36	35	20	11	7	2	2	0	0	0	0	0	0	0	10		35.7	0.5
	Peak lbs/day	26	231	305	341	250	138	103	36	36	17	21	3	19	0	0	0		100	341	21
SOX	Tons/year	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100		0.2	0.0
	Peak lbs/day	0	1	1	2	1	1	1	0	0	0	0	0	0	0	0	0		150	2	0
PM10	Tons/year	0	2	3	3	2	1	1	0	0	0	0	0	0	0	0	0	100		3.0	0.1
	Peak lbs/day	6	23	26	24	21	14	14	7	7	6	8	0	7	0	0	0		150	26	8
PM2.5	Tons/year	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	70		1.3	0.1
	Peak lbs/day	3	11	11	11	10	6	6	3	3	3	4	0	3	0	0	0		55	11	4
		Phase 1								Combined	Phase 2									Phase 1	Phase 2

Summary - Criteria Dispersion Results - Proposed Project without Mitigation

	CAAQS NO2 01H1	NAAQS NO2 01H8	CAAQS NO2 AN00	NAAQS NO2 AN00	SCAMQD PM2.5 24H1	NAAQS PM10 24H1	NAAQS PM10 AN00
Threshold / Standard:	339	**188**	57	100	10.4	**10.4**	**1.0**
Total Concentration (ug/m3):	288	**201**	42	42	3.6	**10.4**	**1.6**
Background (ug/m3):	164	*Included in Model*	23	23	*N/A*	*N/A*	*N/A*
Peak (ug/m3):	124	201	19	19	3.6	10.4	1.6

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		CAAQS NO2 01H1	NAAQS NO2 01H8	CAAQS NO2 AN00	NAAQS NO2 AN00	SCAMQD PM2.5 24H1	NAAQS PM10 24H1	NAAQS PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
369131.40	3758945.42	34.02	106.61	0.13	0.13	0.11	0.14	0.01
370190.78	3758848.26	28.40	106.97	0.16	0.16	0.15	0.18	0.01
370747.03	3763937.58	5.15	105.76	0.02	0.02	0.02	0.03	0.00
370757.72	3755124.52	36.87	114.39	0.26	0.26	0.20	0.34	0.02
370946.70	3758260.69	31.48	108.71	0.33	0.33	0.17	0.32	0.03
371368.79	3754218.82	15.28	106.12	0.14	0.14	0.10	0.17	0.01
371786.04	3754168.42	16.81	106.19	0.12	0.12	0.09	0.13	0.01
373756.25	3761779.11	12.21	105.69	0.04	0.04	0.04	0.06	0.00
367734.03	3758536.57	35.76	108.43	0.15	0.15	0.12	0.16	0.01
368069.11	3760165.13	11.13	106.33	0.08	0.08	0.04	0.07	0.01
369125.38	3763066.25	7.15	105.76	0.03	0.03	0.03	0.05	0.00
369225.45	3764227.42	5.58	105.78	0.02	0.02	0.02	0.04	0.00
370236.75	3761140.30	9.13	106.04	0.05	0.05	0.04	0.06	0.00
372218.41	3759157.53	15.39	106.49	0.17	0.17	0.09	0.14	0.01
372267.44	3762986.25	8.87	105.69	0.02	0.02	0.03	0.04	0.00
374498.14	3758643.27	53.09	109.28	0.39	0.39	0.13	0.19	0.03

Attachment F.1.2

Construction Concentrations– Criteria Pollutants

- Proposed Project without Mitigation
- Proposed Project with Mitigation
- Potential Future Development without Mitigation

LAX Landside Access Modernization Program Project, Final EIR

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
366874.65	3756582.79	17.26	106.86	0.34	0.34	0.15	0.24	0.02
366900.00	3756500.00	17.47	106.87	0.33	0.33	0.16	0.24	0.02
366913.34	3756494.23	17.66	106.88	0.34	0.34	0.16	0.24	0.02
366921.75	3757860.58	17.14	106.05	0.22	0.22	0.13	0.22	0.02
366952.02	3756405.68	18.30	106.81	0.34	0.34	0.16	0.27	0.02
366982.97	3757895.00	16.84	106.08	0.22	0.22	0.13	0.23	0.02
366990.71	3756317.13	18.70	106.95	0.34	0.34	0.17	0.28	0.02
367029.39	3756228.58	20.85	106.94	0.33	0.33	0.17	0.28	0.02
367044.19	3757929.41	16.62	106.11	0.21	0.21	0.14	0.24	0.02
367068.08	3756140.03	22.07	107.18	0.32	0.32	0.16	0.25	0.02
367106.77	3756051.48	23.65	106.87	0.31	0.31	0.14	0.22	0.02
367145.45	3755962.93	25.73	107.12	0.30	0.30	0.16	0.26	0.02
367163.35	3757937.75	24.69	109.11	0.22	0.22	0.18	0.27	0.02
367184.14	3755874.38	26.66	107.08	0.30	0.30	0.17	0.28	0.02
367222.83	3755785.83	26.19	106.86	0.29	0.29	0.17	0.28	0.02
367261.51	3755697.28	24.54	106.83	0.28	0.28	0.16	0.27	0.02
367284.84	3757912.25	18.65	106.26	0.22	0.22	0.15	0.25	0.02
367300.20	3755608.73	21.91	106.86	0.27	0.27	0.16	0.25	0.02
367338.88	3755520.18	21.59	106.79	0.27	0.27	0.16	0.23	0.02
367348.39	3757912.82	19.05	106.26	0.23	0.23	0.15	0.25	0.02
367377.57	3755431.63	22.79	106.71	0.27	0.27	0.16	0.23	0.02
367401.92	3757982.92	18.68	106.24	0.21	0.21	0.15	0.23	0.02
367464.88	3755430.72	23.65	106.87	0.28	0.28	0.16	0.25	0.02
367498.60	3757937.52	19.60	106.36	0.22	0.22	0.15	0.25	0.02
367539.80	3757864.76	20.70	106.65	0.24	0.24	0.16	0.27	0.02

LAX Landside Access Modernization Program Project, Final EIR

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
375472.61	3759680.03	17.40	105.74	0.14	0.14	0.11	0.14	0.01
375514.38	3757500.61	37.42	105.84	0.29	0.29	0.13	0.16	0.02
377395.41	3759189.37	14.86	105.68	0.19	0.19	0.07	0.09	0.01
366363.62	3757753.10	14.73	105.90	0.21	0.21	0.11	0.18	0.01
369385.71	3758351.85	44.21	109.21	0.21	0.21	0.15	0.22	0.02
369388.19	3758584.61	38.22	108.20	0.17	0.17	0.13	0.17	0.01
371727.30	3758286.14	46.36	111.46	0.43	0.43	0.14	0.29	0.03
371973.18	3757657.97	56.75	122.10	5.34	5.34	0.32	2.41	0.45
372028.99	3757658.28	58.60	124.81	7.92	7.92	0.31	5.88	0.69
372057.72	3757303.44	85.18	129.15	2.10	2.10	0.40	1.05	0.17
372058.94	3757365.68	86.30	129.61	3.06	3.06	0.40	1.51	0.25
372114.76	3757419.38	86.95	130.86	7.20	7.20	0.41	1.69	0.52
372149.51	3757302.81	86.47	131.70	2.11	2.11	0.40	0.93	0.17
366675.72	3757743.67	16.12	105.95	0.23	0.23	0.11	0.18	0.02
367105.41	3757963.83	17.30	106.15	0.21	0.21	0.14	0.24	0.02
367221.30	3757911.68	18.08	106.21	0.22	0.22	0.15	0.25	0.02
367346.43	3757955.57	18.75	106.23	0.22	0.22	0.15	0.24	0.02
367457.41	3758010.28	18.58	106.26	0.21	0.21	0.14	0.22	0.02
367730.93	3758222.91	34.17	106.49	0.21	0.21	0.12	0.22	0.01
367995.30	3758074.68	43.90	113.12	0.25	0.25	0.15	0.27	0.02
369154.15	3758166.98	44.79	114.95	0.26	0.26	0.18	0.25	0.02
369214.54	3758209.64	38.66	108.84	0.25	0.25	0.15	0.23	0.02
369279.67	3758015.34	51.54	117.18	0.31	0.31	0.21	0.29	0.02
369788.09	3758340.35	35.82	107.40	0.24	0.24	0.18	0.30	0.02
369790.55	3758580.31	34.84	107.74	0.20	0.20	0.17	0.27	0.01

LAX Landside Access Modernization Program Project, Final EIR

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
367552.20	3755429.80	24.22	107.05	0.30	0.30	0.16	0.28	0.02
367596.95	3757879.64	20.80	106.65	0.24	0.24	0.16	0.26	0.02
367628.79	3757855.59	21.33	106.66	0.25	0.25	0.17	0.27	0.02
367639.51	3755428.89	24.63	107.64	0.32	0.32	0.18	0.30	0.02
367696.39	3757845.44	21.76	106.66	0.25	0.25	0.17	0.27	0.02
367700.81	3758169.46	22.97	106.41	0.21	0.21	0.11	0.20	0.01
367707.57	3757896.37	21.05	106.58	0.24	0.24	0.16	0.25	0.02
367726.83	3755427.97	24.78	108.26	0.34	0.34	0.19	0.33	0.02
367734.79	3758105.67	21.67	106.36	0.21	0.21	0.12	0.20	0.02
367743.72	3758010.21	20.79	106.36	0.23	0.23	0.14	0.21	0.02
367785.33	3758200.53	36.52	106.70	0.21	0.21	0.13	0.23	0.01
367814.14	3755427.06	24.68	109.03	0.36	0.36	0.20	0.34	0.02
367830.31	3758150.13	26.50	106.44	0.22	0.22	0.11	0.21	0.02
367839.73	3758178.15	38.54	107.16	0.22	0.22	0.13	0.23	0.02
367874.18	3755433.41	24.85	109.81	0.38	0.38	0.21	0.35	0.03
367912.80	3758112.41	39.68	109.41	0.23	0.23	0.14	0.25	0.02
367934.21	3755439.76	25.11	110.09	0.39	0.39	0.22	0.36	0.03
368001.74	3755450.16	25.20	110.15	0.41	0.41	0.22	0.37	0.03
368067.33	3758044.68	47.34	113.60	0.26	0.26	0.15	0.26	0.02
368069.28	3755460.56	25.27	110.69	0.43	0.43	0.23	0.37	0.03
368136.81	3755470.96	25.43	111.53	0.45	0.45	0.23	0.39	0.03
368139.37	3758014.68	34.35	106.57	0.26	0.26	0.13	0.24	0.02
368217.94	3755478.99	26.04	112.52	0.47	0.47	0.24	0.41	0.03
368226.20	3757984.68	55.04	116.39	0.28	0.28	0.16	0.27	0.02
368310.20	3755477.83	26.63	113.18	0.49	0.49	0.23	0.45	0.03

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Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
371537.21	3756959.02	76.21	153.89	2.00	2.00	0.88	2.12	0.16
371736.26	3757371.88	72.71	125.03	4.49	4.49	0.42	4.25	0.36
371795.72	3757393.54	75.17	125.23	6.17	6.17	0.40	10.43	0.52
371925.67	3757658.96	55.19	120.91	4.88	4.88	0.32	1.89	0.43
367720.95	3757929.47	20.52	106.39	0.24	0.24	0.16	0.24	0.02
366410.42	3757645.39	15.89	105.88	0.22	0.22	0.12	0.21	0.01
366412.06	3757743.84	14.93	105.90	0.21	0.21	0.11	0.18	0.01
366449.10	3757556.84	16.71	105.91	0.23	0.23	0.14	0.23	0.02
366471.13	3757711.22	15.33	105.90	0.22	0.22	0.11	0.19	0.01
366487.79	3757468.29	17.27	105.96	0.24	0.24	0.15	0.25	0.02
366526.47	3757379.74	17.49	106.02	0.25	0.25	0.16	0.27	0.02
366543.32	3757684.41	15.87	105.90	0.23	0.23	0.12	0.20	0.02
366565.16	3757291.19	18.25	106.09	0.25	0.25	0.16	0.28	0.02
366572.51	3757755.35	20.37	106.33	0.22	0.22	0.13	0.19	0.02
366603.85	3757202.64	18.52	106.17	0.26	0.26	0.16	0.28	0.02
366629.35	3757738.18	22.34	106.63	0.23	0.23	0.14	0.20	0.02
366642.53	3757114.09	18.98	106.13	0.27	0.27	0.16	0.27	0.02
366681.22	3757025.54	20.16	106.13	0.28	0.28	0.15	0.25	0.02
366700.77	3757739.37	16.28	105.95	0.23	0.23	0.11	0.18	0.02
366719.91	3756936.99	20.90	106.21	0.30	0.30	0.13	0.22	0.02
366758.59	3756848.44	20.94	106.31	0.31	0.31	0.13	0.19	0.02
366780.64	3757782.90	16.96	105.98	0.23	0.23	0.12	0.19	0.02
366797.28	3756759.89	20.23	106.25	0.32	0.32	0.13	0.20	0.02
366835.96	3756671.34	18.73	106.67	0.33	0.33	0.15	0.22	0.02
366869.69	3757831.79	17.21	106.02	0.23	0.23	0.12	0.21	0.02

LAX Landside Access Modernization Program Project, Final EIR

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
369978.66	3758283.45	33.03	106.95	0.24	0.24	0.20	0.27	0.02
370009.40	3755454.66	41.84	114.38	0.39	0.39	0.27	0.47	0.03
370056.44	3758282.14	38.72	107.13	0.24	0.24	0.20	0.27	0.02
370106.48	3755453.21	40.91	114.69	0.37	0.37	0.26	0.46	0.03
370130.90	3758282.44	42.30	108.31	0.23	0.23	0.20	0.25	0.02
370203.56	3755451.77	38.54	113.43	0.38	0.38	0.26	0.42	0.03
370226.81	3758159.47	63.07	107.86	0.28	0.28	0.18	0.26	0.02
370227.55	3758221.46	59.11	107.38	0.26	0.26	0.18	0.24	0.02
370228.30	3758283.44	55.28	107.06	0.25	0.25	0.17	0.23	0.02
370253.14	3758168.84	62.65	107.51	0.28	0.28	0.18	0.26	0.02
370300.64	3755450.32	40.11	116.63	0.39	0.39	0.25	0.36	0.03
370308.97	3758176.51	57.91	106.95	0.28	0.28	0.17	0.24	0.02
370356.87	3758202.23	50.56	107.28	0.28	0.28	0.17	0.24	0.02
370397.72	3755448.87	37.62	116.28	0.40	0.40	0.24	0.30	0.03
370404.21	3758225.88	42.82	106.83	0.28	0.28	0.16	0.25	0.02
370422.64	3758284.19	40.48	106.86	0.27	0.27	0.15	0.25	0.02
370442.78	3758228.43	36.66	106.85	0.28	0.28	0.16	0.26	0.02
370465.02	3755455.18	36.79	115.67	0.40	0.40	0.23	0.29	0.03
370522.53	3758282.84	29.64	106.89	0.28	0.28	0.15	0.28	0.02
370558.15	3755458.94	35.60	114.24	0.39	0.39	0.23	0.35	0.03
370622.42	3758281.49	28.25	106.97	0.30	0.30	0.15	0.30	0.02
370624.63	3755467.51	34.76	114.04	0.38	0.38	0.23	0.37	0.03
370691.11	3755476.08	32.76	113.15	0.38	0.38	0.23	0.36	0.03
370722.31	3758280.14	29.37	107.06	0.31	0.31	0.16	0.32	0.02
370757.38	3755493.32	33.17	112.68	0.37	0.37	0.22	0.35	0.03

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Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
368312.17	3757967.29	57.18	123.08	0.29	0.29	0.19	0.26	0.02
368386.06	3757966.42	56.18	123.35	0.28	0.28	0.19	0.28	0.02
368402.45	3755476.67	28.98	113.64	0.51	0.51	0.25	0.48	0.03
368459.96	3757965.55	54.53	119.37	0.29	0.29	0.17	0.27	0.02
368494.71	3755475.51	30.70	114.60	0.52	0.52	0.27	0.53	0.03
368533.85	3757964.68	41.22	109.15	0.30	0.30	0.16	0.25	0.02
368533.98	3757935.39	40.31	110.21	0.31	0.31	0.16	0.26	0.02
368586.97	3755474.35	31.15	114.38	0.53	0.53	0.30	0.58	0.04
368594.27	3757948.47	45.47	109.34	0.31	0.31	0.17	0.26	0.02
368657.87	3757978.44	66.80	112.78	0.30	0.30	0.19	0.25	0.02
368679.22	3755473.19	32.27	114.92	0.54	0.54	0.33	0.63	0.04
368710.99	3758011.46	64.76	117.85	0.29	0.29	0.20	0.27	0.02
368748.06	3758034.51	55.64	118.85	0.29	0.29	0.20	0.26	0.02
368771.48	3755472.04	32.75	116.19	0.54	0.54	0.35	0.68	0.04
368806.72	3758070.98	46.72	120.01	0.30	0.30	0.19	0.26	0.02
368863.73	3755470.88	31.94	115.94	0.54	0.54	0.37	0.72	0.04
368865.39	3758107.46	44.43	123.48	0.30	0.30	0.17	0.25	0.02
368931.37	3758150.49	40.83	120.23	0.29	0.29	0.18	0.26	0.02
368955.99	3755469.72	32.93	115.95	0.52	0.52	0.38	0.73	0.04
368974.29	3758177.61	39.82	116.30	0.28	0.28	0.18	0.26	0.02
368992.63	3758138.09	40.98	117.83	0.29	0.29	0.19	0.27	0.02
369011.06	3758086.77	43.30	120.17	0.31	0.31	0.20	0.29	0.02
369048.25	3755468.56	34.76	115.70	0.50	0.50	0.37	0.70	0.04
369097.31	3758131.13	44.38	117.67	0.28	0.28	0.19	0.26	0.02
369140.50	3755467.40	34.18	114.96	0.48	0.48	0.36	0.63	0.03

LAX Landside Access Modernization Program Project, Final EIR

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
370792.87	3757995.38	33.74	109.33	0.45	0.45	0.26	0.42	0.03
370797.01	3758107.02	32.58	108.52	0.39	0.39	0.22	0.38	0.03
370798.36	3758194.12	30.99	107.12	0.35	0.35	0.19	0.36	0.03
370798.51	3757946.46	34.77	109.70	0.48	0.48	0.28	0.45	0.04
370799.71	3758281.23	28.86	107.40	0.31	0.31	0.17	0.32	0.02
370807.53	3755529.02	33.76	112.52	0.37	0.37	0.22	0.35	0.03
370818.52	3757901.47	37.09	111.26	0.52	0.52	0.31	0.49	0.04
370851.08	3757864.53	39.64	112.81	0.56	0.56	0.33	0.53	0.04
370854.34	3755560.20	32.86	111.64	0.37	0.37	0.22	0.34	0.03
370901.14	3755591.38	32.86	109.95	0.37	0.37	0.22	0.34	0.03
370908.58	3757858.61	39.57	113.70	0.58	0.58	0.31	0.57	0.05
370929.68	3755646.61	32.83	110.77	0.38	0.38	0.24	0.34	0.03
370932.48	3755705.67	35.24	112.35	0.40	0.40	0.26	0.36	0.03
370959.17	3757378.41	75.97	138.71	1.64	1.64	0.55	1.12	0.12
370959.96	3757296.11	78.22	146.64	1.83	1.83	0.64	1.30	0.14
370960.75	3757213.81	80.39	153.54	2.30	2.30	0.71	1.18	0.17
370961.54	3757131.50	87.18	168.61	2.92	2.92	0.92	1.12	0.21
370962.33	3757049.20	100.07	177.25	4.09	4.09	1.43	1.80	0.31
370963.12	3756966.90	109.78	187.29	6.85	6.85	3.20	2.95	0.58
370966.07	3757852.69	38.73	114.45	0.61	0.61	0.29	0.60	0.05
370968.09	3757808.70	41.89	116.84	0.65	0.65	0.31	0.67	0.05
370983.75	3755705.22	35.73	111.89	0.40	0.40	0.26	0.36	0.03
370986.42	3755628.02	32.21	111.26	0.37	0.37	0.24	0.34	0.03
370989.10	3755550.81	30.36	108.38	0.34	0.34	0.22	0.32	0.03
370991.77	3755473.61	29.32	107.64	0.32	0.32	0.21	0.31	0.02

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Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
369216.91	3758091.16	48.75	116.46	0.28	0.28	0.19	0.27	0.02
369232.76	3755466.24	34.97	114.46	0.46	0.46	0.33	0.53	0.03
369267.76	3758146.04	31.47	107.78	0.27	0.27	0.15	0.24	0.02
369271.60	3758257.04	39.90	111.42	0.23	0.23	0.17	0.23	0.02
369323.20	3758086.63	33.30	109.79	0.29	0.29	0.15	0.25	0.02
369328.65	3758304.45	41.35	109.37	0.22	0.22	0.17	0.23	0.02
369329.84	3755464.79	36.52	115.03	0.45	0.45	0.30	0.44	0.03
369342.43	3757939.52	39.12	113.96	0.35	0.35	0.18	0.29	0.03
369386.54	3758429.44	43.22	110.01	0.19	0.19	0.14	0.20	0.01
369387.36	3758507.02	41.72	109.74	0.18	0.18	0.13	0.18	0.01
369409.11	3758008.60	37.15	111.80	0.31	0.31	0.17	0.26	0.02
369426.92	3755463.35	40.62	115.08	0.45	0.45	0.28	0.39	0.03
369468.66	3758583.75	34.16	107.15	0.17	0.17	0.14	0.18	0.01
369524.00	3755461.90	39.89	116.19	0.47	0.47	0.26	0.35	0.03
369549.13	3758582.89	35.39	106.67	0.18	0.18	0.14	0.23	0.01
369621.08	3755460.45	37.56	117.01	0.48	0.48	0.25	0.42	0.03
369629.61	3758582.03	38.27	107.39	0.19	0.19	0.18	0.29	0.01
369710.08	3758581.17	37.63	107.54	0.20	0.20	0.18	0.30	0.01
369718.16	3755459.00	37.55	117.46	0.48	0.48	0.25	0.45	0.03
369787.02	3758286.68	37.52	107.51	0.25	0.25	0.20	0.32	0.02
369788.19	3758398.38	34.10	106.75	0.23	0.23	0.17	0.29	0.02
369789.37	3758489.35	31.66	106.70	0.21	0.21	0.16	0.26	0.02
369815.24	3755457.56	40.75	114.90	0.45	0.45	0.27	0.53	0.03
369882.84	3758285.07	34.48	106.83	0.25	0.25	0.19	0.29	0.02
369912.32	3755456.11	37.99	115.29	0.42	0.42	0.29	0.55	0.03

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Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
371898.90	3758134.17	53.41	113.88	0.62	0.62	0.18	0.34	0.05
371909.58	3757435.59	79.33	125.67	14.77	14.77	0.39	10.05	1.13
371916.85	3757398.54	81.11	126.59	5.24	5.24	0.39	4.01	0.43
371917.20	3757362.27	81.14	127.10	3.13	3.13	0.40	2.65	0.25
371927.01	3757742.18	56.00	119.95	3.00	3.00	0.32	1.81	0.26
371928.06	3757790.69	58.35	121.25	2.24	2.24	0.31	1.48	0.19
371934.40	3755402.69	21.69	106.73	0.22	0.22	0.16	0.19	0.02
371934.40	3757852.44	57.10	118.92	1.60	1.60	0.28	0.92	0.13
371937.61	3757919.43	54.45	118.05	1.17	1.17	0.26	0.69	0.10
371940.82	3757986.42	51.53	117.25	0.92	0.92	0.24	0.56	0.07
371944.03	3758053.41	54.69	115.59	0.76	0.76	0.21	0.45	0.06
371947.54	3756951.78	69.52	134.30	1.32	1.32	0.47	0.74	0.10
371954.98	3757424.18	83.43	125.96	7.30	7.30	0.39	4.27	0.58
372007.70	3757423.51	85.82	127.90	6.13	6.13	0.39	2.83	0.50
372031.48	3757755.88	67.77	123.25	4.98	4.98	0.37	4.11	0.41
372033.85	3755399.05	25.41	106.60	0.21	0.21	0.14	0.18	0.02
372045.99	3756950.26	70.53	133.36	1.18	1.18	0.42	0.62	0.09
372060.42	3757422.83	86.30	128.96	6.10	6.10	0.40	2.09	0.51
372097.97	3757754.97	72.56	123.38	11.85	11.85	0.40	5.40	0.79
372114.62	3757440.24	86.75	130.68	7.26	7.26	0.41	2.00	0.53
372133.29	3755395.42	28.42	106.73	0.20	0.20	0.13	0.17	0.02
372144.43	3756948.75	80.16	141.55	1.13	1.13	0.38	0.55	0.09
372152.01	3757362.33	87.38	133.74	3.10	3.10	0.42	1.08	0.25
372153.80	3757418.83	87.48	133.77	7.31	7.31	0.43	1.45	0.53
372154.47	3757439.86	87.28	132.55	9.40	9.40	0.42	1.72	0.64

LAX Landside Access Modernization Program Project, Final EIR

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
371017.44	3757371.98	72.64	137.40	1.79	1.79	0.56	1.16	0.14
371039.92	3757778.95	43.25	116.13	0.72	0.72	0.28	0.75	0.06
371061.56	3756965.39	107.71	182.54	5.47	5.47	2.19	2.18	0.45
371064.57	3755405.04	27.33	106.94	0.29	0.29	0.20	0.28	0.02
371078.64	3757842.57	40.33	113.84	0.68	0.68	0.25	0.63	0.05
371116.65	3757378.24	67.10	135.42	2.15	2.15	0.55	1.34	0.19
371117.35	3757906.19	37.53	112.22	0.63	0.63	0.23	0.61	0.05
371160.25	3755403.96	25.57	106.96	0.29	0.29	0.21	0.28	0.02
371160.00	3756963.88	103.49	179.44	4.89	4.89	2.31	2.20	0.41
371173.76	3757954.26	35.59	111.29	0.59	0.59	0.21	0.61	0.05
371174.47	3757986.09	34.29	111.14	0.56	0.56	0.20	0.56	0.04
371208.04	3757297.08	71.13	140.29	2.16	2.16	0.64	2.18	0.19
371208.86	3757379.92	64.70	133.95	2.59	2.59	0.56	2.44	0.24
371210.97	3757210.00	84.42	150.38	2.23	2.23	0.80	1.54	0.17
371243.87	3757985.25	34.42	111.72	0.57	0.57	0.19	0.53	0.05
371255.94	3755402.89	26.18	107.59	0.28	0.28	0.21	0.27	0.02
371258.45	3756962.36	107.00	183.04	5.28	5.28	3.09	3.80	0.45
371275.69	3757208.66	76.85	148.37	2.25	2.25	0.78	1.38	0.18
371313.27	3757984.41	33.90	112.30	0.58	0.58	0.19	0.46	0.05
371348.54	3758024.62	33.80	111.74	0.54	0.54	0.18	0.36	0.04
371351.62	3755401.81	26.67	107.61	0.27	0.27	0.22	0.26	0.02
371356.75	3757207.46	70.02	142.82	2.43	2.43	0.71	1.33	0.20
371356.89	3756960.85	97.84	170.44	3.74	3.74	2.09	5.08	0.31
371402.37	3758061.24	36.00	111.11	0.52	0.52	0.17	0.38	0.04
371437.81	3757206.27	67.15	139.93	2.71	2.71	0.64	1.36	0.23

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Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
372156.97	3757518.41	85.44	130.62	6.51	6.51	0.38	1.86	0.45
372159.47	3757596.96	71.82	131.12	6.71	6.71	0.34	2.45	0.47
372161.97	3757675.51	73.64	127.16	9.56	9.56	0.35	3.48	0.70
372164.46	3757754.06	76.58	125.91	7.12	7.12	0.44	2.95	0.53
372232.73	3755391.79	29.95	106.97	0.19	0.19	0.13	0.15	0.01
372242.87	3756947.24	86.85	145.20	1.08	1.08	0.40	0.51	0.08
372332.18	3755388.15	32.10	107.10	0.19	0.19	0.13	0.14	0.01
372341.31	3756945.73	88.55	150.84	1.03	1.03	0.46	0.54	0.08
372410.73	3755381.99	33.74	107.13	0.18	0.18	0.12	0.14	0.01
372439.76	3756944.21	91.19	158.37	1.01	1.01	0.55	0.52	0.08
372489.28	3755375.83	33.79	107.10	0.18	0.18	0.12	0.13	0.01
372538.20	3756942.70	92.10	159.23	1.04	1.04	0.60	0.52	0.08
372567.83	3755369.67	32.21	107.05	0.17	0.17	0.12	0.12	0.01
372621.24	3755369.96	30.42	107.03	0.17	0.17	0.11	0.12	0.01
372627.96	3756505.77	69.89	117.78	0.41	0.41	0.24	0.25	0.03
372628.35	3756589.05	74.90	118.89	0.47	0.47	0.26	0.29	0.04
372630.81	3757026.03	96.64	165.60	1.31	1.31	0.80	0.59	0.11
372632.23	3757120.50	104.76	173.65	1.75	1.75	1.17	0.72	0.16
372632.53	3756752.34	76.21	127.42	0.64	0.64	0.32	0.36	0.05
372634.59	3756846.76	81.61	139.88	0.78	0.78	0.40	0.42	0.06
372634.70	3757211.58	102.25	175.44	2.04	2.04	1.33	1.01	0.17
372636.64	3756941.19	90.05	157.82	1.04	1.04	0.56	0.52	0.08
372650.02	3757248.61	103.73	175.76	2.35	2.35	1.41	1.22	0.19
372671.90	3757332.14	103.92	173.19	3.75	3.75	1.26	1.88	0.32
372672.36	3756975.42	91.34	161.82	1.20	1.20	0.62	0.56	0.10

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Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
371447.31	3755400.73	26.12	106.99	0.26	0.26	0.22	0.25	0.02
371455.33	3756959.34	85.63	162.33	2.38	2.38	1.09	3.89	0.19
371474.09	3758110.88	37.72	111.15	0.50	0.50	0.16	0.39	0.04
371518.87	3757205.07	62.71	137.56	2.32	2.32	0.61	1.43	0.19
371537.39	3758154.69	37.88	111.19	0.48	0.48	0.16	0.38	0.04
371542.99	3755399.65	24.99	106.76	0.25	0.25	0.21	0.24	0.02
371599.93	3757203.87	57.74	135.81	2.23	2.23	0.59	1.39	0.17
371600.70	3758198.51	38.96	112.36	0.47	0.47	0.15	0.32	0.04
371613.52	3756957.47	70.29	149.29	1.74	1.74	0.76	1.64	0.14
371638.68	3755398.58	23.66	106.95	0.25	0.25	0.20	0.23	0.02
371652.22	3756956.31	69.70	146.55	1.65	1.65	0.71	1.46	0.13
371664.00	3758242.33	41.80	112.03	0.45	0.45	0.15	0.30	0.04
371678.83	3757376.47	71.38	125.88	5.36	5.36	0.45	4.96	0.45
371680.99	3757202.68	54.57	134.96	2.20	2.20	0.57	1.36	0.17
371683.71	3757291.78	63.56	127.66	2.86	2.86	0.45	2.27	0.22
371734.36	3755397.50	22.40	106.89	0.24	0.24	0.19	0.22	0.02
371750.66	3756954.80	68.52	141.57	1.50	1.50	0.61	1.11	0.11
371767.81	3758230.27	47.37	112.38	0.49	0.49	0.15	0.31	0.04
371801.04	3755399.23	22.09	106.85	0.23	0.23	0.18	0.20	0.02
371812.25	3757364.20	74.96	126.15	3.79	3.79	0.40	6.17	0.31
371825.62	3758161.92	49.19	113.54	0.57	0.57	0.17	0.33	0.04
371849.10	3756953.29	68.48	137.16	1.39	1.39	0.53	0.89	0.10
371866.03	3757363.09	78.32	126.96	3.58	3.58	0.41	3.88	0.28
371867.72	3755400.96	21.97	106.84	0.23	0.23	0.17	0.20	0.02
371895.02	3758059.68	50.80	115.52	0.73	0.73	0.20	0.42	0.06

Construction Dispersion Summary.xlsx proposed Project

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
373303.06	3757072.90	84.43	133.39	0.87	0.87	0.53	0.28	0.08
373317.14	3756432.03	27.11	109.27	0.27	0.27	0.14	0.15	0.02
373323.11	3757730.27	119.61	166.81	2.93	2.93	1.35	0.68	0.22
373323.28	3757744.87	114.61	163.96	2.74	2.74	1.13	0.67	0.20
373363.74	3755756.24	16.01	106.44	0.15	0.15	0.08	0.11	0.01
373365.13	3755845.96	17.23	106.46	0.16	0.16	0.08	0.12	0.01
373366.53	3755935.69	19.01	106.48	0.17	0.17	0.09	0.13	0.01
373367.92	3756025.41	20.34	106.54	0.19	0.19	0.09	0.13	0.01
373369.31	3756115.13	20.63	106.78	0.20	0.20	0.10	0.14	0.02
373369.50	3757072.16	85.96	128.59	0.76	0.76	0.50	0.27	0.07
373370.37	3757159.75	91.72	140.32	1.23	1.23	0.75	0.31	0.14
373370.71	3756204.86	20.00	107.02	0.21	0.21	0.11	0.14	0.02
373371.24	3757247.34	94.67	159.05	2.17	2.17	1.42	0.34	0.25
373372.10	3756294.58	21.74	107.42	0.23	0.23	0.12	0.14	0.02
373372.12	3757334.94	103.02	150.04	2.05	2.05	1.50	0.47	0.17
373372.99	3757422.53	98.75	144.83	3.55	3.55	1.23	0.60	0.26
373373.72	3756378.86	27.20	108.62	0.25	0.25	0.13	0.15	0.02
373373.86	3757510.12	101.78	164.08	4.29	4.29	1.53	1.02	0.31
373374.73	3757597.71	121.11	170.95	3.56	3.56	1.94	1.01	0.26
373374.83	3756432.37	31.05	108.79	0.26	0.26	0.14	0.15	0.02
373375.60	3757685.31	114.01	157.66	3.07	3.07	1.31	0.75	0.23
373393.43	3757684.85	112.19	155.68	2.96	2.96	1.22	0.73	0.22
373394.30	3757744.19	108.39	150.52	2.51	2.51	0.91	0.64	0.19
367047.63	3761097.01	7.87	106.25	0.06	0.06	0.03	0.05	0.00
370737.54	3762942.92	6.08	105.91	0.03	0.03	0.03	0.03	0.00

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
372672.57	3757018.04	94.94	163.44	1.39	1.39	0.76	0.62	0.11
372692.63	3756588.53	75.24	119.66	0.46	0.46	0.27	0.27	0.04
372694.60	3756751.91	77.12	123.23	0.62	0.62	0.34	0.35	0.05
372697.78	3755368.97	26.90	106.96	0.16	0.16	0.11	0.12	0.01
372704.41	3757417.13	123.95	187.20	18.68	18.68	1.87	6.63	1.65
372725.34	3756505.44	70.08	118.90	0.40	0.40	0.25	0.25	0.03
372730.58	3756678.55	76.35	122.10	0.53	0.53	0.31	0.30	0.04
372739.22	3757507.15	98.12	182.06	14.23	14.23	1.12	4.11	1.14
372756.67	3756751.48	77.45	124.47	0.61	0.61	0.35	0.31	0.05
372768.35	3756973.59	87.48	156.01	1.14	1.14	0.57	0.50	0.10
372770.71	3757656.89	94.26	145.61	3.31	3.31	0.73	1.43	0.26
372773.23	3757598.18	93.34	152.42	4.88	4.88	0.73	2.35	0.40
372774.32	3755367.98	25.64	106.72	0.16	0.16	0.10	0.12	0.01
372774.75	3757745.62	95.07	134.57	2.42	2.42	0.68	0.86	0.19
372784.40	3757635.25	94.82	145.96	3.82	3.82	0.76	1.63	0.31
372822.71	3756505.12	63.28	119.26	0.39	0.39	0.25	0.23	0.03
372839.80	3757745.93	97.60	140.96	2.50	2.50	0.74	0.74	0.20
372850.87	3755366.99	24.10	106.54	0.15	0.15	0.09	0.12	0.01
372864.35	3756971.76	82.66	144.43	1.14	1.14	0.54	0.38	0.10
372904.85	3757746.24	97.61	147.60	2.62	2.62	0.76	0.74	0.22
372910.27	3757732.13	99.69	148.88	2.78	2.78	0.84	0.77	0.23
372919.43	3756436.58	58.15	117.79	0.34	0.34	0.21	0.21	0.03
372920.09	3756504.79	61.55	119.25	0.37	0.37	0.23	0.22	0.03
372927.41	3755366.00	21.86	106.41	0.15	0.15	0.08	0.12	0.01
372927.86	3755465.33	23.54	106.50	0.15	0.15	0.09	0.13	0.01

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
371031.93	3758057.86	32.11	110.65	0.47	0.47	0.22	0.48	0.04
371034.38	3758338.88	35.70	109.73	0.30	0.30	0.16	0.26	0.02
371091.65	3754274.94	16.78	106.00	0.14	0.14	0.10	0.18	0.01
371165.78	3758547.83	32.80	110.24	0.23	0.23	0.13	0.19	0.02
372241.00	3757383.00	88.91	138.63	3.92	3.92	0.46	0.89	0.32
372703.01	3761799.64	13.65	105.79	0.04	0.04	0.04	0.05	0.00
374194.97	3754806.86	11.01	105.72	0.08	0.08	0.04	0.07	0.01
374697.43	3760305.50	13.37	105.69	0.08	0.08	0.04	0.07	0.01
375423.74	3758805.14	24.15	106.91	0.33	0.33	0.13	0.16	0.02
375433.42	3757541.59	41.50	105.83	0.31	0.31	0.14	0.18	0.02
378090.06	3758535.33	16.41	105.68	0.17	0.17	0.09	0.13	0.01
368494.88	3756671.28	44.42	130.97	1.05	1.05	0.42	0.67	0.07
370394.80	3756845.73	120.70	200.94	10.89	10.89	3.59	7.68	0.81
368983.23	3754581.57	20.96	106.32	0.20	0.20	0.16	0.20	0.02
369216.41	3758422.45	35.76	107.43	0.19	0.19	0.17	0.19	0.01
369532.57	3755391.67	56.80	130.12	0.45	0.45	0.30	0.40	0.03
369574.04	3758166.39	43.90	113.74	0.26	0.26	0.19	0.28	0.02
369581.37	3758516.07	39.11	106.74	0.19	0.19	0.16	0.26	0.01
369830.08	3755394.84	47.45	119.95	0.42	0.42	0.32	0.58	0.03
370114.12	3758186.53	43.18	107.82	0.26	0.26	0.19	0.27	0.02
371021.69	3757820.60	41.55	115.74	0.67	0.67	0.28	0.66	0.05
366809.77	3757837.27	16.93	106.01	0.22	0.22	0.12	0.20	0.02
366843.26	3757860.52	16.87	106.03	0.22	0.22	0.12	0.21	0.02
366900.00	3758500.00	14.75	106.22	0.14	0.14	0.09	0.13	0.01
366900.00	3762500.00	6.94	106.14	0.04	0.04	0.02	0.04	0.00

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
372928.32	3755564.67	25.41	106.73	0.16	0.16	0.10	0.13	0.01
372928.77	3755664.00	27.50	106.80	0.17	0.17	0.10	0.14	0.01
372929.23	3755763.34	29.83	107.43	0.18	0.18	0.11	0.14	0.01
372947.75	3756971.61	81.31	137.51	1.33	1.33	0.53	0.35	0.13
372992.82	3755761.76	26.95	106.93	0.17	0.17	0.10	0.14	0.01
372995.87	3757731.75	95.98	154.14	2.83	2.83	0.90	0.85	0.23
373004.43	3756435.35	52.39	116.31	0.33	0.33	0.19	0.20	0.03
373031.15	3756971.45	78.50	134.21	1.06	1.06	0.51	0.32	0.10
373056.40	3755760.18	23.61	106.57	0.17	0.17	0.09	0.13	0.01
373057.59	3755829.92	25.07	106.97	0.18	0.18	0.10	0.13	0.01
373058.79	3755899.65	26.67	107.27	0.19	0.19	0.10	0.14	0.01
373077.68	3757731.38	98.67	155.81	3.05	3.05	1.08	0.77	0.24
373089.44	3756434.13	44.61	113.15	0.32	0.32	0.16	0.19	0.02
373118.11	3756991.19	81.63	132.76	0.98	0.98	0.50	0.31	0.09
373137.84	3755759.39	19.03	106.38	0.16	0.16	0.08	0.13	0.01
373138.33	3755829.37	20.23	106.42	0.17	0.17	0.09	0.13	0.01
373138.82	3755899.35	21.56	106.65	0.18	0.18	0.09	0.13	0.01
373159.49	3757731.01	101.13	157.92	3.51	3.51	1.32	0.81	0.26
373174.45	3756432.91	34.72	111.70	0.30	0.30	0.14	0.17	0.02
373179.17	3757023.66	82.91	133.84	0.97	0.97	0.54	0.32	0.09
373213.14	3755758.34	17.16	106.21	0.16	0.16	0.08	0.12	0.01
373236.62	3757073.64	83.81	136.25	1.01	1.01	0.61	0.29	0.10
373241.30	3757730.64	113.66	171.91	3.40	3.40	1.58	0.75	0.25
373259.45	3756431.68	24.34	108.24	0.28	0.28	0.14	0.16	0.02
373288.44	3755757.29	16.40	106.63	0.16	0.16	0.08	0.12	0.01

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
371807.64	3758213.78	49.34	112.55	0.51	0.51	0.16	0.31	0.04
371874.55	3758164.07	52.41	113.32	0.57	0.57	0.17	0.32	0.04
371900.00	3758500.00	47.92	108.90	0.33	0.33	0.14	0.21	0.03
371900.00	3759500.00	12.89	106.21	0.12	0.12	0.06	0.11	0.01
371900.00	3762500.00	11.69	105.73	0.03	0.03	0.04	0.06	0.00
371900.00	3763500.00	7.10	105.70	0.02	0.02	0.02	0.04	0.00
371933.81	3758104.81	55.18	115.04	0.67	0.67	0.19	0.38	0.05
372241.00	3757883.00	79.00	121.49	1.76	1.76	0.33	0.95	0.14
372241.00	3757983.00	74.31	118.14	1.11	1.11	0.26	0.67	0.09
372341.00	3757883.00	84.07	122.70	1.87	1.87	0.34	1.01	0.15
372341.00	3757983.00	79.37	118.66	1.16	1.16	0.27	0.70	0.10
372900.00	3753500.00	9.57	105.86	0.07	0.07	0.08	0.10	0.01
372900.00	3754500.00	13.32	106.09	0.11	0.11	0.08	0.11	0.01
372900.00	3759500.00	13.46	106.90	0.13	0.13	0.08	0.12	0.01
372900.00	3760500.00	9.27	105.86	0.08	0.08	0.05	0.07	0.01
372900.00	3761500.00	13.10	105.70	0.04	0.04	0.04	0.05	0.00
372900.00	3762500.00	11.64	105.69	0.02	0.02	0.02	0.03	0.00
373541.00	3757783.00	98.48	133.96	1.91	1.91	0.59	0.52	0.14
373541.00	3757883.00	94.79	130.21	1.49	1.49	0.44	0.47	0.11
373541.00	3757983.00	88.54	125.21	1.16	1.16	0.32	0.42	0.09
373641.00	3756983.00	61.30	113.40	0.43	0.43	0.25	0.20	0.04
373641.00	3757083.00	51.37	115.53	0.51	0.51	0.25	0.21	0.04
373641.00	3757183.00	60.76	119.69	0.65	0.65	0.29	0.25	0.06
373641.00	3757283.00	75.58	119.08	0.91	0.91	0.55	0.31	0.09
373641.00	3757383.00	80.22	121.87	1.21	1.21	0.65	0.38	0.10

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
366900.00	3763500.00	5.01	105.95	0.03	0.03	0.02	0.03	0.00
366900.00	3764500.00	7.03	105.80	0.02	0.02	0.02	0.03	0.00
366982.41	3757958.65	16.26	106.07	0.21	0.21	0.13	0.23	0.01
367163.97	3758028.80	17.36	106.16	0.20	0.20	0.14	0.23	0.01
367275.38	3757999.92	18.07	106.21	0.20	0.20	0.14	0.23	0.02
367395.04	3758065.94	17.62	106.23	0.20	0.20	0.13	0.21	0.01
367880.40	3758145.84	38.75	107.39	0.23	0.23	0.13	0.24	0.02
367900.00	3761500.00	8.98	106.20	0.05	0.05	0.03	0.05	0.00
367900.00	3762500.00	7.19	106.02	0.03	0.03	0.02	0.03	0.00
367900.00	3764500.00	4.55	105.72	0.02	0.02	0.02	0.03	0.00
368068.97	3758068.94	49.38	113.50	0.25	0.25	0.15	0.26	0.02
368182.48	3758015.85	47.06	110.32	0.27	0.27	0.14	0.25	0.02
368416.83	3757988.39	54.29	121.89	0.28	0.28	0.17	0.28	0.02
368577.94	3757979.23	48.49	108.90	0.30	0.30	0.17	0.25	0.02
368764.68	3758079.93	45.60	119.72	0.29	0.29	0.19	0.26	0.02
368900.00	3754500.00	19.05	106.29	0.19	0.19	0.15	0.19	0.01
368900.00	3759500.00	26.33	106.44	0.10	0.10	0.09	0.11	0.01
368900.00	3761500.00	7.88	106.12	0.05	0.05	0.03	0.06	0.00
368900.00	3762500.00	7.28	105.85	0.04	0.04	0.03	0.05	0.00
368900.00	3763500.00	6.52	105.74	0.03	0.03	0.03	0.04	0.00
368900.00	3764500.00	5.70	105.74	0.02	0.02	0.02	0.04	0.00
368944.10	3758186.12	39.92	117.18	0.28	0.28	0.18	0.26	0.02
369206.25	3758147.26	44.74	113.54	0.27	0.27	0.18	0.26	0.02
369268.49	3758066.34	48.44	115.71	0.29	0.29	0.20	0.28	0.02
369333.85	3757999.43	48.06	116.74	0.32	0.32	0.19	0.28	0.02

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
373641.00	3757483.00	81.11	124.45	1.63	1.63	0.62	0.56	0.13
373641.00	3757583.00	85.82	126.51	1.93	1.93	0.67	0.72	0.14
373641.00	3757683.00	90.06	130.05	1.95	1.95	0.58	0.62	0.14
373641.00	3757783.00	93.52	131.22	1.74	1.74	0.49	0.48	0.13
373641.00	3757883.00	93.53	126.24	1.43	1.43	0.43	0.43	0.11
373641.00	3757983.00	90.16	123.28	1.15	1.15	0.33	0.41	0.09
373687.89	3757980.08	90.39	124.03	1.15	1.15	0.34	0.40	0.09
373900.00	3753500.00	9.05	105.69	0.06	0.06	0.05	0.06	0.00
373900.00	3754500.00	11.79	105.70	0.08	0.08	0.06	0.07	0.01
373900.00	3755500.00	13.72	105.81	0.11	0.11	0.05	0.09	0.01
373900.00	3756500.00	41.39	106.93	0.20	0.20	0.12	0.12	0.02
373900.00	3757500.00	76.00	116.62	1.10	1.10	0.46	0.44	0.09
373900.00	3758500.00	29.56	109.99	0.46	0.46	0.12	0.23	0.04
373900.00	3760500.00	13.57	106.00	0.07	0.07	0.07	0.09	0.01
373900.00	3761500.00	14.03	105.69	0.04	0.04	0.05	0.05	0.00
373900.00	3764500.00	7.82	105.67	0.01	0.01	0.02	0.02	0.00
374900.00	3754500.00	12.91	105.68	0.06	0.06	0.04	0.05	0.00
374900.00	3755500.00	13.46	105.69	0.08	0.08	0.05	0.06	0.01
374900.00	3756500.00	11.12	105.69	0.12	0.12	0.07	0.09	0.01
374900.00	3757500.00	54.78	107.17	0.41	0.41	0.19	0.22	0.03
374900.00	3759500.00	15.96	105.97	0.16	0.16	0.13	0.17	0.01
374900.00	3760500.00	14.83	105.68	0.07	0.07	0.04	0.06	0.01
374900.00	3761500.00	13.75	105.68	0.04	0.04	0.06	0.06	0.00
374900.00	3762500.00	10.52	105.68	0.02	0.02	0.02	0.03	0.00
374900.00	3763500.00	6.43	105.68	0.02	0.02	0.02	0.03	0.00

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
369425.60	3758641.99	33.38	106.66	0.16	0.16	0.12	0.17	0.01
369599.53	3758634.67	36.04	106.87	0.18	0.18	0.16	0.27	0.01
369775.29	3758632.83	35.32	107.40	0.19	0.19	0.17	0.27	0.01
369834.01	3758329.33	34.90	106.88	0.25	0.25	0.18	0.28	0.02
369900.00	3754500.00	20.11	106.30	0.18	0.18	0.16	0.27	0.01
369900.00	3758500.00	28.14	106.66	0.21	0.21	0.16	0.23	0.02
369900.00	3759500.00	24.42	106.57	0.10	0.10	0.11	0.13	0.01
369900.00	3761500.00	8.06	105.94	0.04	0.04	0.04	0.06	0.00
369900.00	3762500.00	6.48	105.92	0.03	0.03	0.03	0.05	0.00
369900.00	3764500.00	4.60	105.88	0.02	0.02	0.02	0.03	0.00
370006.10	3758331.16	39.06	107.36	0.23	0.23	0.20	0.26	0.02
370183.69	3758338.49	56.39	107.83	0.23	0.23	0.18	0.22	0.02
370425.35	3758336.66	40.53	106.88	0.26	0.26	0.15	0.25	0.02
370701.79	3758334.82	27.84	107.11	0.29	0.29	0.15	0.30	0.02
370780.52	3758327.50	28.01	107.18	0.29	0.29	0.16	0.30	0.02
370900.00	3759500.00	24.90	106.61	0.09	0.09	0.09	0.15	0.01
370900.00	3760500.00	24.11	106.16	0.06	0.06	0.05	0.08	0.00
370900.00	3762500.00	9.06	105.95	0.03	0.03	0.03	0.05	0.00
370900.00	3763500.00	5.50	105.77	0.02	0.02	0.02	0.03	0.00
370900.00	3764500.00	4.64	105.71	0.02	0.02	0.02	0.02	0.00
371295.29	3758036.94	32.72	111.71	0.52	0.52	0.18	0.38	0.04
371421.46	3758118.19	36.53	111.09	0.48	0.48	0.16	0.36	0.04
371550.51	3758209.00	39.71	112.44	0.45	0.45	0.15	0.33	0.04
371685.28	3758299.81	47.97	111.92	0.42	0.42	0.14	0.28	0.03
371754.11	3758291.20	47.79	111.46	0.44	0.44	0.14	0.28	0.03

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
379900.00	3764500.00	4.99	105.67	0.02	0.02	0.01	0.03	0.00
380900.00	3753500.00	6.60	105.67	0.01	0.01	0.02	0.02	0.00
380900.00	3754500.00	8.28	105.67	0.02	0.02	0.03	0.04	0.00
380900.00	3755500.00	7.10	105.67	0.02	0.02	0.03	0.04	0.00
380900.00	3756500.00	7.65	105.67	0.03	0.03	0.03	0.04	0.00
380900.00	3757500.00	6.32	105.67	0.06	0.06	0.03	0.04	0.00
380900.00	3758500.00	18.72	105.67	0.09	0.09	0.05	0.09	0.01
380900.00	3759500.00	6.18	105.67	0.10	0.10	0.04	0.07	0.01
380900.00	3760500.00	6.09	105.67	0.10	0.10	0.03	0.05	0.01
380900.00	3761500.00	5.98	105.67	0.07	0.07	0.03	0.05	0.01
380900.00	3762500.00	6.27	105.67	0.05	0.05	0.04	0.05	0.00
380900.00	3763500.00	11.35	105.67	0.03	0.03	0.04	0.05	0.00
381900.00	3754500.00	6.22	105.67	0.01	0.01	0.02	0.02	0.00
381900.00	3755500.00	5.13	105.67	0.02	0.02	0.02	0.03	0.00
381900.00	3756500.00	5.21	105.67	0.03	0.03	0.02	0.03	0.00
381900.00	3757500.00	5.17	105.67	0.05	0.05	0.02	0.04	0.00
381900.00	3759500.00	6.05	105.67	0.09	0.09	0.04	0.06	0.01
381900.00	3760500.00	5.54	105.67	0.09	0.09	0.03	0.05	0.01
381900.00	3761500.00	6.09	105.67	0.07	0.07	0.03	0.04	0.01
381900.00	3762500.00	6.18	105.67	0.05	0.05	0.03	0.04	0.00
381900.00	3763500.00	8.29	105.67	0.03	0.03	0.05	0.06	0.00
381900.00	3764500.00	9.62	105.67	0.02	0.02	0.02	0.05	0.00
382900.00	3753500.00	4.02	105.67	0.01	0.01	0.01	0.02	0.00
382900.00	3754500.00	3.06	105.67	0.01	0.01	0.01	0.02	0.00
382900.00	3755500.00	2.64	105.67	0.02	0.02	0.01	0.02	0.00

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
374900.00	3764500.00	7.12	105.68	0.02	0.02	0.02	0.03	0.00
375900.00	3753500.00	9.24	105.68	0.04	0.04	0.03	0.04	0.00
375900.00	3755500.00	9.58	105.68	0.06	0.06	0.04	0.05	0.00
375900.00	3756500.00	8.55	105.69	0.09	0.09	0.05	0.07	0.01
375900.00	3760500.00	14.12	105.68	0.08	0.08	0.07	0.14	0.01
375900.00	3761500.00	8.80	105.68	0.04	0.04	0.03	0.04	0.00
375900.00	3762500.00	11.25	105.68	0.03	0.03	0.05	0.05	0.00
375900.00	3763500.00	10.54	105.67	0.02	0.02	0.03	0.03	0.00
375900.00	3764500.00	3.68	105.67	0.02	0.02	0.01	0.02	0.00
376084.62	3761776.42	9.48	105.68	0.04	0.04	0.03	0.04	0.00
376900.00	3755500.00	6.78	105.68	0.04	0.04	0.03	0.04	0.00
376900.00	3756500.00	6.94	105.68	0.07	0.07	0.04	0.05	0.01
376900.00	3758500.00	16.01	105.68	0.24	0.24	0.10	0.15	0.02
376900.00	3759500.00	16.61	105.68	0.17	0.17	0.07	0.10	0.01
376900.00	3760500.00	21.36	105.68	0.09	0.09	0.09	0.11	0.01
376900.00	3761500.00	13.08	105.67	0.05	0.05	0.03	0.10	0.00
376900.00	3762500.00	8.31	105.67	0.03	0.03	0.03	0.03	0.00
376900.00	3764500.00	3.50	105.67	0.02	0.02	0.02	0.02	0.00
377900.00	3753500.00	5.52	105.67	0.03	0.03	0.02	0.02	0.00
377900.00	3754500.00	5.20	105.67	0.03	0.03	0.02	0.03	0.00
377900.00	3755500.00	5.53	105.68	0.03	0.03	0.02	0.03	0.00
377900.00	3756500.00	14.73	105.68	0.06	0.06	0.06	0.07	0.00
377900.00	3757500.00	14.35	105.68	0.11	0.11	0.05	0.07	0.01
377900.00	3759500.00	13.27	105.68	0.17	0.17	0.07	0.09	0.01
377900.00	3760500.00	11.92	105.67	0.10	0.10	0.05	0.07	0.01

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
382900.00	3756500.00	2.97	105.67	0.03	0.03	0.01	0.02	0.00
382900.00	3757500.00	3.58	105.67	0.04	0.04	0.02	0.03	0.00
382900.00	3758500.00	12.59	105.67	0.06	0.06	0.04	0.06	0.00
382900.00	3759500.00	6.42	105.67	0.08	0.08	0.04	0.06	0.01
382900.00	3760500.00	5.07	105.67	0.08	0.08	0.03	0.05	0.01
382900.00	3761500.00	5.85	105.67	0.07	0.07	0.03	0.04	0.01
382900.00	3762500.00	5.10	105.67	0.05	0.05	0.03	0.04	0.00
382900.00	3763500.00	5.74	105.67	0.03	0.03	0.03	0.04	0.00
382900.00	3764500.00	9.06	105.67	0.02	0.02	0.04	0.05	0.00
383900.00	3753500.00	2.86	105.67	0.01	0.01	0.01	0.02	0.00
383900.00	3754500.00	2.36	105.67	0.01	0.01	0.01	0.02	0.00
383900.00	3755500.00	2.42	105.67	0.02	0.02	0.01	0.02	0.00
383900.00	3756500.00	2.68	105.67	0.03	0.03	0.01	0.02	0.00
383900.00	3757500.00	2.69	105.67	0.04	0.04	0.02	0.03	0.00
383900.00	3762500.00	5.58	105.67	0.05	0.05	0.02	0.04	0.00
383900.00	3763500.00	5.57	105.67	0.04	0.04	0.02	0.03	0.00
383900.00	3764500.00	5.44	105.67	0.03	0.03	0.04	0.05	0.00
384900.00	3753500.00	2.52	105.67	0.01	0.01	0.01	0.01	0.00
384900.00	3754500.00	2.18	105.67	0.01	0.01	0.01	0.02	0.00
384900.00	3755500.00	2.22	105.67	0.02	0.02	0.01	0.01	0.00
384900.00	3756500.00	2.41	105.67	0.02	0.02	0.01	0.02	0.00
384900.00	3757500.00	2.31	105.67	0.03	0.03	0.01	0.02	0.00
384900.00	3758500.00	7.96	105.67	0.05	0.05	0.02	0.03	0.00
384900.00	3759500.00	9.24	105.67	0.06	0.06	0.03	0.06	0.00
384900.00	3760500.00	4.49	105.67	0.06	0.06	0.03	0.04	0.00

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
377900.00	3761500.00	13.02	105.67	0.06	0.06	0.05	0.08	0.00
377900.00	3762500.00	6.51	105.67	0.04	0.04	0.02	0.06	0.00
377900.00	3763500.00	5.17	105.67	0.03	0.03	0.02	0.03	0.00
377900.00	3764500.00	3.65	105.67	0.02	0.02	0.02	0.03	0.00
378528.59	3764156.44	5.04	105.67	0.02	0.02	0.02	0.02	0.00
378900.00	3753500.00	4.13	105.67	0.02	0.02	0.01	0.02	0.00
378900.00	3755500.00	9.44	105.67	0.02	0.02	0.03	0.04	0.00
378900.00	3756500.00	13.62	105.67	0.04	0.04	0.05	0.06	0.00
378900.00	3757500.00	11.17	105.67	0.09	0.09	0.04	0.06	0.01
378900.00	3758500.00	23.09	105.67	0.14	0.14	0.07	0.13	0.01
378900.00	3759500.00	9.84	105.67	0.15	0.15	0.06	0.08	0.01
378900.00	3760500.00	7.65	105.67	0.10	0.10	0.04	0.07	0.01
378900.00	3762500.00	9.47	105.67	0.04	0.04	0.03	0.07	0.00
378900.00	3763500.00	5.73	105.67	0.03	0.03	0.02	0.04	0.00
378900.00	3764500.00	5.12	105.67	0.02	0.02	0.02	0.02	0.00
378902.85	3757271.45	12.51	105.67	0.07	0.07	0.04	0.06	0.01
379900.00	3754500.00	9.27	105.67	0.02	0.02	0.03	0.04	0.00
379900.00	3755500.00	9.18	105.67	0.02	0.02	0.03	0.04	0.00
379900.00	3756500.00	11.07	105.67	0.04	0.04	0.05	0.05	0.00
379900.00	3757500.00	8.64	105.67	0.07	0.07	0.03	0.05	0.01
379900.00	3759500.00	7.58	105.67	0.12	0.12	0.05	0.07	0.01
379900.00	3760500.00	6.51	105.67	0.10	0.10	0.03	0.05	0.01
379900.00	3761500.00	6.39	105.67	0.06	0.06	0.03	0.05	0.00
379900.00	3762500.00	12.77	105.67	0.04	0.04	0.05	0.07	0.00
379900.00	3763500.00	8.57	105.67	0.03	0.03	0.02	0.07	0.00

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Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
368693.42	3758359.47	37.50	118.16	0.23	0.23	0.14	0.20	0.02
368842.92	3761590.39	7.78	106.10	0.04	0.04	0.03	0.06	0.00
368869.11	3754097.89	22.78	106.39	0.15	0.15	0.11	0.16	0.01
368869.83	3765067.00	5.19	105.74	0.02	0.02	0.02	0.04	0.00
368969.99	3761647.20	8.19	106.09	0.04	0.04	0.03	0.06	0.00
368970.54	3754677.64	20.73	106.44	0.22	0.22	0.18	0.22	0.02
369007.11	3762513.11	7.68	105.83	0.04	0.04	0.03	0.05	0.00
369227.99	3762251.91	8.40	105.84	0.04	0.04	0.03	0.06	0.00
369242.37	3754695.62	23.79	106.54	0.23	0.23	0.14	0.19	0.02
369456.98	3762567.48	7.49	105.82	0.03	0.03	0.03	0.05	0.00
369504.00	3754702.08	21.48	106.46	0.24	0.24	0.14	0.25	0.02
369767.91	3761150.98	9.59	106.05	0.05	0.05	0.05	0.06	0.00
369809.34	3764567.65	4.52	105.87	0.02	0.02	0.02	0.03	0.00
369845.18	3754154.97	30.04	106.41	0.14	0.14	0.19	0.27	0.01
369848.41	3753976.49	20.55	106.17	0.13	0.13	0.15	0.23	0.01
370097.88	3760014.31	21.89	106.36	0.07	0.07	0.09	0.11	0.01
370150.95	3754699.75	24.38	106.25	0.19	0.19	0.17	0.25	0.01
370192.96	3758860.70	28.33	107.03	0.16	0.16	0.15	0.18	0.01
370243.17	3759622.98	27.38	106.69	0.09	0.09	0.11	0.12	0.01
370246.20	3754243.12	19.02	106.12	0.14	0.14	0.14	0.20	0.01
370290.74	3759464.60	26.56	106.82	0.09	0.09	0.11	0.14	0.01
370608.78	3762239.97	7.00	106.05	0.03	0.03	0.03	0.04	0.00
370614.80	3762181.53	7.08	106.06	0.03	0.03	0.03	0.04	0.00
370625.96	3763759.08	5.28	105.80	0.02	0.02	0.02	0.03	0.00
370723.56	3763867.78	5.20	105.77	0.02	0.02	0.02	0.03	0.00

LAX Landside Access Modernization Program Project, Final EIR

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
384900.00	3761500.00	4.83	105.67	0.06	0.06	0.02	0.03	0.00
384900.00	3762500.00	5.04	105.67	0.05	0.05	0.02	0.03	0.00
384900.00	3763500.00	4.20	105.67	0.04	0.04	0.02	0.03	0.00
384900.00	3764500.00	5.15	105.67	0.03	0.03	0.02	0.03	0.00
371641.00	3756983.00	70.04	144.43	1.79	1.79	0.73	1.32	0.14
371741.00	3756983.00	68.84	139.41	1.60	1.60	0.63	1.10	0.12
371841.00	3756983.00	66.26	137.99	1.50	1.50	0.55	0.93	0.11
371941.00	3756983.00	69.16	133.23	1.36	1.36	0.48	0.79	0.10
371941.00	3757683.00	52.46	121.43	4.32	4.32	0.32	1.96	0.37
372041.00	3756983.00	70.41	133.63	1.28	1.28	0.43	0.69	0.10
372141.00	3756983.00	78.76	139.77	1.24	1.24	0.39	0.62	0.09
372241.00	3756983.00	86.54	150.15	1.18	1.18	0.38	0.57	0.09
372341.00	3756983.00	88.77	151.86	1.13	1.13	0.47	0.57	0.09
372441.00	3756983.00	91.53	160.69	1.12	1.12	0.57	0.55	0.09
372541.00	3756983.00	94.06	164.59	1.17	1.17	0.67	0.56	0.09
372641.00	3756983.00	92.95	160.74	1.28	1.28	0.67	0.56	0.10
373241.00	3756983.00	81.90	130.81	0.78	0.78	0.42	0.29	0.07
373341.00	3756983.00	82.46	123.14	0.69	0.69	0.40	0.23	0.06
373441.00	3756983.00	83.22	118.72	0.62	0.62	0.36	0.21	0.05
373441.00	3757583.00	100.87	149.66	3.08	3.08	1.27	0.96	0.23
373441.00	3757683.00	107.02	150.56	2.72	2.72	1.02	0.67	0.20
373441.00	3757783.00	102.55	140.76	2.08	2.08	0.68	0.55	0.15
373441.00	3757883.00	93.30	134.03	1.52	1.52	0.45	0.50	0.12
373441.00	3757983.00	83.55	125.52	1.17	1.17	0.34	0.43	0.09
373541.00	3756983.00	81.67	116.73	0.50	0.50	0.31	0.21	0.04

LAX Landside Access Modernization Program Project, Final EIR

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
370968.58	3759443.63	23.83	106.62	0.09	0.09	0.10	0.13	0.01
371139.14	3758179.30	35.28	109.96	0.39	0.39	0.17	0.31	0.03
371516.05	3762577.75	9.58	105.81	0.03	0.03	0.02	0.05	0.00
371721.40	3759371.61	14.38	106.25	0.13	0.13	0.07	0.12	0.01
371973.81	3758892.65	17.59	106.77	0.21	0.21	0.10	0.17	0.02
372687.72	3759513.01	12.85	106.84	0.13	0.13	0.08	0.12	0.01
372943.49	3761051.66	11.45	105.77	0.05	0.05	0.04	0.06	0.00
373546.52	3760907.48	15.30	105.84	0.06	0.06	0.06	0.07	0.00
373736.60	3756503.93	48.70	107.53	0.22	0.22	0.13	0.13	0.02
373758.20	3758043.23	88.45	121.18	1.00	1.00	0.29	0.37	0.08
373781.58	3755802.14	18.97	105.96	0.13	0.13	0.07	0.11	0.01
373814.20	3756040.57	29.48	106.25	0.15	0.15	0.08	0.10	0.01
373990.06	3753826.14	9.70	105.69	0.07	0.07	0.06	0.09	0.00
374057.73	3758196.51	80.77	113.88	0.74	0.74	0.22	0.29	0.06
374270.95	3758673.42	35.03	110.86	0.37	0.37	0.11	0.19	0.03
374561.05	3757642.94	69.46	108.33	0.64	0.64	0.26	0.33	0.05
374688.84	3758984.90	29.77	107.72	0.26	0.26	0.09	0.14	0.02
374693.96	3758983.17	30.25	107.70	0.26	0.26	0.09	0.14	0.02
374717.46	3762574.39	8.44	105.68	0.02	0.02	0.03	0.03	0.00
375503.80	3764537.77	4.73	105.67	0.02	0.02	0.02	0.03	0.00
375614.97	3760555.10	16.99	105.68	0.07	0.07	0.05	0.13	0.01
375718.04	3758204.95	18.91	105.70	0.39	0.39	0.13	0.20	0.03
375902.79	3764940.52	3.21	105.67	0.02	0.02	0.01	0.02	0.00
375908.38	3763938.71	8.33	105.67	0.02	0.02	0.03	0.03	0.00
375920.60	3762083.39	11.89	105.68	0.03	0.03	0.05	0.05	0.00

LAX Landside Access Modernization Program Project, Final EIR

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
373541.00	3757083.00	79.99	118.90	0.58	0.58	0.34	0.24	0.05
373541.00	3757183.00	67.82	124.71	0.79	0.79	0.34	0.26	0.08
373541.00	3757283.00	80.22	127.04	1.11	1.11	0.73	0.34	0.11
373541.00	3757383.00	83.89	130.95	1.45	1.45	0.78	0.41	0.12
373541.00	3757483.00	87.12	130.75	2.11	2.11	0.75	0.65	0.16
373541.00	3757583.00	91.00	134.16	2.41	2.41	0.86	0.83	0.18
373541.00	3757683.00	96.68	137.08	2.27	2.27	0.71	0.64	0.17
366455.27	3763213.67	5.56	106.06	0.03	0.03	0.02	0.03	0.00
366669.62	3763342.53	5.00	106.01	0.03	0.03	0.02	0.03	0.00
366671.31	3762769.21	6.48	106.10	0.03	0.03	0.02	0.04	0.00
367494.53	3758314.82	20.49	106.31	0.18	0.18	0.09	0.18	0.01
367575.16	3764900.80	4.34	105.71	0.02	0.02	0.01	0.02	0.00
367638.49	3757975.16	19.55	106.32	0.22	0.22	0.15	0.23	0.02
367728.62	3761967.19	7.97	106.18	0.04	0.04	0.03	0.04	0.00
367787.59	3758292.62	43.51	110.63	0.20	0.20	0.13	0.22	0.01
367831.34	3763245.91	6.32	105.88	0.03	0.03	0.02	0.03	0.00
367900.00	3758500.00	35.86	107.68	0.16	0.16	0.12	0.17	0.01
367926.08	3763311.16	6.09	105.85	0.03	0.03	0.02	0.03	0.00
367964.98	3758232.97	47.41	111.84	0.21	0.21	0.13	0.21	0.01
367976.37	3763336.74	5.94	105.84	0.03	0.03	0.02	0.03	0.00
367978.91	3758390.10	37.41	109.59	0.18	0.18	0.13	0.18	0.01
368188.78	3758591.47	37.02	106.62	0.17	0.17	0.12	0.15	0.01
368501.11	3761632.38	8.67	106.17	0.04	0.04	0.03	0.05	0.00
368505.49	3758571.22	37.15	115.37	0.18	0.18	0.13	0.18	0.01
368673.29	3761677.69	7.84	106.11	0.04	0.04	0.03	0.05	0.00

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
370900.00	3761500.00	13.66	106.10	0.04	0.04	0.03	0.07	0.00
370933.96	3757895.90	37.98	112.35	0.57	0.57	0.29	0.54	0.04
371041.00	3757083.00	93.25	174.24	3.39	3.39	1.31	1.43	0.25
371041.00	3757183.00	85.98	157.51	2.54	2.54	0.80	1.05	0.19
371041.00	3757283.00	73.42	144.55	2.02	2.02	0.64	1.23	0.15
371141.00	3757083.00	90.60	171.38	3.03	3.03	1.28	1.33	0.24
371141.00	3757183.00	86.62	156.08	2.37	2.37	0.87	1.33	0.18
371141.00	3757283.00	72.85	142.37	2.06	2.06	0.65	1.54	0.17
371150.00	3757970.99	34.77	111.06	0.57	0.57	0.21	0.58	0.04
371241.00	3757083.00	90.20	168.44	2.81	2.81	1.04	1.23	0.22
371241.00	3757183.00	84.55	152.45	2.31	2.31	0.85	1.30	0.18
371341.00	3757083.00	85.91	162.47	2.72	2.72	1.05	1.33	0.22
371341.00	3757183.00	73.92	145.50	2.39	2.39	0.75	1.18	0.19
371441.00	3757083.00	81.14	154.06	2.85	2.85	1.00	1.29	0.25
371441.00	3757183.00	68.72	142.48	2.67	2.67	0.67	1.31	0.23
371539.56	3757095.63	72.59	145.95	2.27	2.27	0.85	1.08	0.18
371540.36	3757178.31	62.03	141.73	2.25	2.25	0.66	1.31	0.18
371614.33	3757093.32	69.24	140.91	2.08	2.08	0.77	0.97	0.16
371615.15	3757177.59	59.30	139.45	2.16	2.16	0.63	1.29	0.17
371641.00	3757083.00	69.23	139.93	2.02	2.02	0.75	0.95	0.16
371641.00	3757183.00	57.78	137.88	2.16	2.16	0.62	1.30	0.17
371741.00	3757083.00	68.51	135.53	1.85	1.85	0.64	0.90	0.14
371741.00	3757183.00	55.38	133.83	2.08	2.08	0.58	1.19	0.16
371741.00	3757283.00	64.77	127.22	2.63	2.63	0.45	2.34	0.20
371841.00	3757083.00	68.50	132.58	1.72	1.72	0.54	0.79	0.13

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
376709.15	3756388.48	7.06	105.68	0.07	0.07	0.04	0.05	0.01
376814.39	3754856.21	6.57	105.68	0.04	0.04	0.03	0.04	0.00
377050.15	3761774.29	12.26	105.67	0.05	0.05	0.03	0.08	0.00
377052.34	3761911.90	11.41	105.67	0.04	0.04	0.03	0.06	0.00
377227.14	3756422.42	6.38	105.68	0.06	0.06	0.04	0.05	0.00
377237.88	3763993.21	3.82	105.67	0.02	0.02	0.02	0.03	0.00
377313.01	3756205.13	6.12	105.68	0.06	0.06	0.03	0.04	0.00
377330.56	3760754.60	20.59	105.67	0.08	0.08	0.08	0.10	0.01
377342.37	3764027.27	3.86	105.67	0.02	0.02	0.02	0.03	0.00
377388.19	3762578.39	6.09	105.67	0.03	0.03	0.02	0.04	0.00
377563.47	3760340.44	14.90	105.67	0.10	0.10	0.05	0.07	0.01
377753.42	3759272.76	13.78	105.68	0.18	0.18	0.07	0.09	0.01
377839.66	3764649.02	3.38	105.67	0.02	0.02	0.02	0.03	0.00
377841.65	3762246.94	7.24	105.67	0.04	0.04	0.02	0.07	0.00
377908.39	3762502.03	6.53	105.67	0.04	0.04	0.02	0.06	0.00
377916.00	3755241.12	5.78	105.67	0.03	0.03	0.02	0.04	0.00
377924.86	3763642.88	5.11	105.67	0.03	0.03	0.02	0.03	0.00
377967.05	3762224.48	7.63	105.67	0.04	0.04	0.02	0.08	0.00
378003.52	3753139.05	5.22	105.67	0.02	0.02	0.02	0.02	0.00
378022.11	3755897.25	9.63	105.68	0.04	0.04	0.04	0.05	0.00
378066.59	3761432.90	15.11	105.67	0.06	0.06	0.06	0.08	0.00
378209.66	3764122.39	4.88	105.67	0.02	0.02	0.02	0.03	0.00
378212.33	3753511.52	4.98	105.67	0.02	0.02	0.02	0.02	0.00
378223.51	3760237.39	10.56	105.67	0.11	0.11	0.05	0.08	0.01
378326.90	3764105.95	4.99	105.67	0.02	0.02	0.02	0.02	0.00

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
371841.00	3757183.00	61.77	128.46	1.92	1.92	0.53	1.03	0.14
371841.00	3757283.00	69.61	129.22	2.29	2.29	0.44	2.02	0.18
371900.00	3753500.00	15.49	106.19	0.10	0.10	0.08	0.11	0.01
371900.00	3754500.00	19.24	106.23	0.13	0.13	0.12	0.17	0.01
371900.00	3760500.00	10.05	106.08	0.07	0.07	0.04	0.07	0.01
371900.00	3761500.00	8.32	105.86	0.04	0.04	0.03	0.05	0.00
371900.00	3764500.00	7.44	105.68	0.02	0.02	0.02	0.04	0.00
371941.00	3757083.00	74.28	129.94	1.65	1.65	0.47	0.72	0.12
371941.00	3757183.00	69.22	128.89	1.77	1.77	0.48	0.91	0.13
371941.00	3757283.00	74.40	126.27	2.04	2.04	0.43	1.39	0.16
371941.00	3757383.00	82.71	127.25	3.83	3.83	0.40	2.62	0.32
372041.00	3757083.00	75.54	130.48	1.48	1.48	0.42	0.67	0.11
372041.00	3757183.00	75.33	130.02	1.67	1.67	0.43	0.77	0.13
372041.00	3757283.00	80.86	127.92	1.99	1.99	0.41	0.95	0.16
372041.00	3757383.00	86.20	128.76	3.69	3.69	0.40	1.74	0.31
372041.00	3757783.00	67.30	122.21	3.49	3.49	0.41	2.49	0.28
372041.00	3757883.00	60.11	120.38	1.52	1.52	0.27	0.75	0.13
372041.00	3757983.00	61.17	118.05	0.99	0.99	0.24	0.58	0.08
372141.00	3757083.00	76.32	132.97	1.40	1.40	0.38	0.66	0.11
372141.00	3757183.00	76.57	132.25	1.57	1.57	0.39	0.62	0.12
372141.00	3757283.00	85.94	131.09	1.96	1.96	0.39	0.89	0.16
372141.00	3757783.00	72.85	125.39	4.53	4.53	0.44	2.39	0.35
372141.00	3757883.00	70.13	121.54	1.66	1.66	0.31	0.98	0.14
372141.00	3757983.00	68.87	118.17	1.06	1.06	0.26	0.63	0.09
372241.00	3757083.00	81.91	145.55	1.35	1.35	0.40	0.61	0.10

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
378366.51	3755075.26	7.64	105.67	0.03	0.03	0.03	0.04	0.00
378370.05	3759869.86	11.36	105.67	0.14	0.14	0.06	0.08	0.01
378781.96	3760336.17	9.36	105.67	0.11	0.11	0.05	0.07	0.01
378862.39	3757229.87	13.04	105.67	0.07	0.07	0.04	0.06	0.01
366900.00	3759500.00	17.78	106.24	0.08	0.08	0.06	0.08	0.01
367900.00	3759500.00	14.09	106.27	0.10	0.10	0.06	0.09	0.01
366900.00	3760500.00	9.93	106.30	0.07	0.07	0.04	0.06	0.00
366900.00	3761500.00	7.14	106.17	0.05	0.05	0.03	0.05	0.00
367900.00	3753500.00	11.53	106.09	0.11	0.11	0.11	0.13	0.01
367900.00	3754500.00	16.95	106.20	0.23	0.23	0.18	0.32	0.02
367900.00	3760500.00	9.96	106.27	0.07	0.07	0.04	0.07	0.01
367900.00	3763500.00	5.80	105.82	0.03	0.03	0.02	0.03	0.00
368900.00	3753500.00	14.81	106.06	0.11	0.11	0.08	0.11	0.01
368900.00	3758500.00	34.45	108.49	0.19	0.19	0.14	0.19	0.01
368900.00	3760500.00	11.68	106.23	0.07	0.07	0.04	0.07	0.01
369079.58	3758184.29	43.18	115.23	0.27	0.27	0.18	0.24	0.02
369900.00	3753500.00	16.69	106.13	0.10	0.10	0.12	0.18	0.01
369900.00	3760500.00	10.96	106.24	0.07	0.07	0.06	0.08	0.01
369900.00	3763500.00	5.38	105.90	0.03	0.03	0.02	0.04	0.00
370313.67	3758254.27	55.59	106.88	0.26	0.26	0.17	0.23	0.02
370834.03	3758177.01	30.74	107.21	0.36	0.36	0.20	0.37	0.03
370900.00	3753500.00	13.77	106.00	0.10	0.10	0.08	0.12	0.01
370900.00	3754500.00	18.92	106.19	0.16	0.16	0.11	0.20	0.01
370900.00	3755500.00	32.41	110.00	0.34	0.34	0.21	0.34	0.03
370900.00	3758500.00	34.08	108.00	0.24	0.24	0.16	0.21	0.02

LAX Landside Access Modernization Program Project, Final EIR

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
372900.00	3758500.00	18.03	109.04	0.40	0.40	0.15	0.30	0.03
372900.00	3763500.00	4.95	105.69	0.01	0.01	0.02	0.02	0.00
372900.00	3764500.00	8.21	105.68	0.01	0.01	0.03	0.03	0.00
372941.00	3757783.00	92.30	141.82	2.36	2.36	0.67	0.65	0.20
372941.00	3757883.00	85.91	129.76	1.62	1.62	0.46	0.51	0.12
372941.00	3757983.00	45.08	124.05	1.27	1.27	0.29	0.45	0.10
373035.50	3755453.68	19.19	106.29	0.14	0.14	0.08	0.12	0.01
373035.50	3755652.82	22.55	106.47	0.16	0.16	0.09	0.13	0.01
373041.00	3757783.00	91.99	144.13	2.24	2.24	0.73	0.66	0.18
373041.00	3757883.00	63.40	131.34	1.58	1.58	0.42	0.55	0.12
373041.00	3757983.00	31.28	125.76	1.23	1.23	0.28	0.46	0.09
373141.00	3757783.00	88.88	143.57	2.25	2.25	0.76	0.68	0.18
373141.00	3757883.00	43.17	133.59	1.56	1.56	0.37	0.53	0.12
373141.00	3757983.00	34.65	127.72	1.21	1.21	0.30	0.44	0.09
373241.00	3757783.00	95.34	153.43	2.29	2.29	0.74	0.66	0.18
373241.00	3757883.00	72.33	135.88	1.55	1.55	0.41	0.55	0.12
373241.00	3757983.00	37.71	126.01	1.20	1.20	0.31	0.46	0.09
373247.31	3756833.85	64.24	118.85	0.51	0.51	0.29	0.21	0.04
373250.82	3756654.89	42.19	115.28	0.38	0.38	0.19	0.18	0.03
373258.92	3755458.54	16.18	106.04	0.13	0.13	0.07	0.11	0.01
373278.35	3755647.97	17.07	106.19	0.15	0.15	0.08	0.11	0.01
373341.00	3757783.00	104.16	152.54	2.26	2.26	0.82	0.62	0.17
373341.00	3757883.00	88.86	135.78	1.55	1.55	0.48	0.52	0.12
373341.00	3757983.00	55.17	127.45	1.19	1.19	0.32	0.46	0.09
373441.00	3757083.00	85.71	126.50	0.69	0.69	0.46	0.26	0.06

LAX Landside Access Modernization Program Project, Final EIR

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
372241.00	3757183.00	80.24	137.04	1.55	1.55	0.41	0.63	0.12
372241.00	3757283.00	87.18	138.52	1.97	1.97	0.41	1.00	0.16
372241.00	3757483.00	87.67	134.92	5.60	5.60	0.44	1.53	0.41
372241.00	3757583.00	78.28	136.33	4.55	4.55	0.39	1.45	0.33
372241.00	3757683.00	81.15	130.02	5.41	5.41	0.40	2.06	0.40
372241.00	3757783.00	85.39	126.73	3.91	3.91	0.49	1.67	0.30
372341.00	3757083.00	87.53	157.66	1.31	1.31	0.45	0.60	0.10
372341.00	3757183.00	86.57	155.78	1.56	1.56	0.46	0.61	0.12
372341.00	3757283.00	88.81	145.54	2.03	2.03	0.46	1.04	0.16
372341.00	3757383.00	90.98	146.82	3.95	3.95	0.51	0.96	0.33
372341.00	3757483.00	89.55	141.39	5.30	5.30	0.49	1.34	0.39
372341.00	3757583.00	85.03	140.21	3.77	3.77	0.50	1.28	0.28
372341.00	3757683.00	87.04	135.62	3.87	3.87	0.47	1.58	0.29
372341.00	3757783.00	86.86	128.20	3.22	3.22	0.52	1.25	0.24
372441.00	3757083.00	91.17	161.09	1.29	1.29	0.58	0.65	0.10
372441.00	3757183.00	88.69	164.95	1.59	1.59	0.55	0.83	0.13
372441.00	3757283.00	91.15	163.13	2.14	2.14	0.53	0.98	0.18
372441.00	3757383.00	93.75	161.43	4.22	4.22	0.61	1.36	0.38
372441.00	3757483.00	92.38	157.69	5.44	5.44	0.70	1.55	0.41
372441.00	3757583.00	90.51	148.55	3.60	3.60	0.63	1.40	0.27
372441.00	3757683.00	88.80	139.41	3.25	3.25	0.52	1.43	0.24
372441.00	3757783.00	87.17	130.79	2.76	2.76	0.53	1.02	0.21
372441.00	3757883.00	86.14	123.21	1.88	1.88	0.35	0.82	0.15
372441.00	3757983.00	85.62	118.94	1.22	1.22	0.28	0.74	0.10
372541.00	3757083.00	96.14	169.15	1.38	1.38	0.78	0.65	0.11

LAX Landside Access Modernization Program Project, Final EIR

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
373441.00	3757183.00	85.50	139.38	1.09	1.09	0.56	0.29	0.12
373441.00	3757283.00	89.85	137.35	1.41	1.41	1.11	0.37	0.14
373441.00	3757383.00	90.91	137.11	1.98	1.98	0.95	0.46	0.16
373441.00	3757483.00	93.27	139.75	2.91	2.91	0.96	0.77	0.22
373900.00	3759500.00	11.86	105.88	0.14	0.14	0.06	0.13	0.01
373900.00	3762500.00	7.45	105.69	0.02	0.02	0.02	0.04	0.00
373900.00	3763500.00	9.88	105.68	0.02	0.02	0.02	0.03	0.00
374900.00	3753500.00	8.12	105.68	0.05	0.05	0.05	0.06	0.00
374900.00	3758500.00	37.40	108.78	0.45	0.45	0.14	0.18	0.03
375900.00	3754500.00	7.52	105.68	0.04	0.04	0.03	0.04	0.00
375900.00	3757500.00	30.43	105.69	0.24	0.24	0.10	0.14	0.02
375900.00	3758500.00	16.82	105.70	0.35	0.35	0.12	0.16	0.03
375900.00	3759500.00	36.52	105.68	0.17	0.17	0.10	0.12	0.01
376900.00	3753500.00	5.64	105.67	0.03	0.03	0.02	0.03	0.00
376900.00	3754500.00	7.20	105.68	0.03	0.03	0.02	0.03	0.00
376900.00	3757500.00	21.62	105.68	0.16	0.16	0.06	0.09	0.01
376900.00	3763500.00	6.06	105.67	0.03	0.03	0.03	0.04	0.00
377900.00	3758500.00	17.09	105.68	0.18	0.18	0.10	0.14	0.01
378900.00	3754500.00	9.41	105.67	0.02	0.02	0.03	0.03	0.00
378900.00	3761500.00	13.77	105.67	0.06	0.06	0.05	0.07	0.00
379900.00	3753500.00	3.52	105.67	0.02	0.02	0.01	0.02	0.00
379900.00	3758500.00	23.84	105.67	0.12	0.12	0.07	0.12	0.01
380900.00	3764500.00	7.51	105.67	0.02	0.02	0.02	0.06	0.00
381900.00	3753500.00	5.96	105.67	0.01	0.01	0.02	0.02	0.00
381900.00	3758500.00	16.02	105.67	0.08	0.08	0.05	0.08	0.01

LAX Landside Access Modernization Program Project, Final EIR

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		*CAAQS* NO2 01H1	*NAAQS* NO2 01H8	*CAAQS* NO2 AN00	*NAAQS* NO2 AN00	*SCAMQD* PM2.5 24H1	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
372541.00	3757183.00	93.46	168.48	1.71	1.71	0.75	0.89	0.14
372541.00	3757283.00	95.13	166.03	2.33	2.33	0.72	1.32	0.20
372541.00	3757383.00	96.27	183.86	4.42	4.42	0.81	2.29	0.43
372541.00	3757483.00	98.79	179.89	6.75	6.75	1.27	2.65	0.56
372541.00	3757583.00	94.05	160.24	3.73	3.73	0.70	1.64	0.29
372541.00	3757683.00	87.97	141.84	2.91	2.91	0.52	1.27	0.22
372541.00	3757783.00	87.95	127.79	2.45	2.45	0.55	0.99	0.19
372541.00	3757883.00	87.51	121.96	1.83	1.83	0.37	0.73	0.14
372541.00	3757983.00	86.30	118.63	1.27	1.27	0.31	0.63	0.10
372641.00	3757383.00	97.41	186.56	6.09	6.09	1.28	3.55	0.65
372641.00	3757483.00	114.88	193.28	12.33	12.33	1.72	4.24	1.25
372641.00	3757583.00	88.92	166.00	3.99	3.99	0.59	1.65	0.32
372641.00	3757683.00	88.92	142.81	2.87	2.87	0.54	1.30	0.22
372641.00	3757783.00	90.64	130.72	2.31	2.31	0.63	0.94	0.17
372641.00	3757883.00	88.98	123.81	1.79	1.79	0.40	0.65	0.14
372641.00	3757983.00	86.23	119.95	1.30	1.30	0.32	0.56	0.10
372741.00	3757683.00	93.03	144.81	2.96	2.96	0.66	1.31	0.23
372741.00	3757783.00	93.32	131.36	2.23	2.23	0.64	0.78	0.17
372741.00	3757883.00	89.32	125.35	1.74	1.74	0.42	0.58	0.13
372741.00	3757983.00	81.09	119.83	1.32	1.32	0.33	0.53	0.10
372841.00	3757783.00	94.65	137.32	2.21	2.21	0.63	0.66	0.17
372841.00	3757883.00	87.87	125.85	1.68	1.68	0.45	0.56	0.13
372841.00	3757983.00	65.21	122.67	1.31	1.31	0.33	0.48	0.10
372843.75	3756668.92	75.53	122.77	0.50	0.50	0.31	0.26	0.04
372857.79	3756854.91	79.18	129.18	0.76	0.76	0.42	0.33	0.06

Summary - Criteria Dispersion Results - Proposed Project with Mitigatio

	NAAQS NO2 01H8	NAAQS PM10 24H1	NAAQS PM10 AN00
Threshold / Standard:	188	10.4	**1.0**
Total Concentration (ug/m3):	182	5.9	**1.1**
Background (ug/m3):	*Included in Model*	*N/A*	*N/A*
Peak (ug/m3):	182	5.9	1.1

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		NAAQS NO2 01H8	NAAQS PM10 24H1	NAAQS PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
369131.40	3758945.42	106.05	0.09	0.01
370190.78	3758848.26	106.24	0.11	0.01
370747.03	3763937.58	105.72	0.02	0.00
370757.72	3755124.52	105.99	0.22	0.01
370946.70	3758260.69	106.40	0.19	0.01
371368.79	3754218.82	105.93	0.11	0.01
371786.04	3754168.42	105.97	0.08	0.01
373756.25	3761779.11	105.67	0.04	0.00
367734.03	3758536.57	106.02	0.10	0.01
368069.11	3760165.13	106.05	0.05	0.00
369125.38	3763066.25	105.71	0.03	0.00
369225.45	3764227.42	105.72	0.02	0.00
370236.75	3761140.30	105.86	0.04	0.00
372218.41	3759157.53	105.89	0.09	0.01
372267.44	3762986.25	105.68	0.02	0.00
374498.14	3758643.27	106.21	0.13	0.02

Criteria Dispersion Results - Proposed Project without Mitigation

Concentrations in units of ug/m³		CAAQS NO2 01H1	NAAQS NO2 01H8	CAAQS NO2 AN00	NAAQS NO2 AN00	SCAMQD PM2.5 24H1	NAAQS PM10 24H1	NAAQS PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.	Avg Conc.
383900.00	3758500.00	9.96	105.67	0.05	0.05	0.03	0.05	0.00
383900.00	3759500.00	8.06	105.67	0.07	0.07	0.03	0.05	0.01
383900.00	3760500.00	4.85	105.67	0.07	0.07	0.03	0.04	0.01
383900.00	3761500.00	5.30	105.67	0.06	0.06	0.03	0.03	0.00

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		NAAQS NO2 01H8	NAAQS PM10 24H1	NAAQS PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
375472.61	3759680.03	105.67	0.09	0.01
375514.38	3757500.61	105.68	0.11	0.01
377395.41	3759189.37	105.67	0.06	0.01
366363.62	3757753.10	105.79	0.11	0.01
369385.71	3758351.85	106.07	0.14	0.01
369388.19	3758584.61	106.10	0.10	0.01
371727.30	3758286.14	107.07	0.18	0.02
371973.18	3757657.97	111.85	1.57	0.29
372028.99	3757658.28	112.61	4.05	0.45
372057.72	3757303.44	115.96	0.64	0.10
372058.94	3757365.68	115.43	0.89	0.15
372114.76	3757419.38	116.08	1.07	0.36
372149.51	3757302.81	117.92	0.59	0.10
366675.72	3757743.67	105.81	0.12	0.01
367105.41	3757963.83	105.90	0.15	0.01
367221.30	3757911.68	105.90	0.16	0.01
367346.43	3757955.57	105.94	0.16	0.01
367457.41	3758010.28	105.98	0.14	0.01
367730.93	3758222.91	106.03	0.14	0.01
367995.30	3758074.68	106.09	0.17	0.01
369154.15	3758166.98	106.10	0.15	0.01
369214.54	3758209.64	106.07	0.15	0.01
369279.67	3758015.34	106.14	0.18	0.01
369788.09	3758340.35	106.07	0.20	0.01
369790.55	3758580.31	106.16	0.17	0.01

Attachment F.1.2

Construction Concentrations– Criteria Pollutants

- Proposed Project with Mitigation

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
367552.20	3755429.80	106.11	0.18	0.01
367596.95	3757879.64	105.96	0.17	0.01
367628.79	3757855.59	105.96	0.17	0.01
367639.51	3755428.89	106.14	0.20	0.01
367696.39	3757845.44	105.97	0.17	0.01
367700.81	3758169.46	106.02	0.13	0.01
367707.57	3757896.37	105.99	0.16	0.01
367726.83	3755427.97	106.17	0.21	0.01
367734.79	3758105.67	106.02	0.13	0.01
367743.72	3758010.21	106.00	0.13	0.01
367785.33	3758200.53	106.03	0.14	0.01
367814.14	3755427.06	106.19	0.23	0.01
367830.31	3758150.13	106.03	0.14	0.01
367839.73	3758178.15	106.03	0.15	0.01
367874.18	3755433.41	106.18	0.23	0.01
367912.80	3758112.41	106.03	0.16	0.01
367934.21	3755439.76	106.17	0.23	0.01
368001.74	3755450.16	106.18	0.24	0.01
368067.33	3758044.68	106.10	0.16	0.01
368069.28	3755460.56	106.19	0.24	0.02
368136.81	3755470.96	106.18	0.24	0.02
368139.37	3758014.68	106.05	0.15	0.01
368217.94	3755478.99	106.17	0.26	0.02
368226.20	3757984.68	106.12	0.17	0.01
368310.20	3755477.83	106.15	0.28	0.02

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
371537.21	3756959.02	119.74	1.58	0.10
371736.26	3757371.88	112.32	2.57	0.20
371795.72	3757393.54	112.45	5.92	0.27
371925.67	3757658.96	110.55	1.21	0.28
367720.95	3757929.47	106.00	0.15	0.01
366410.42	3757645.39	105.78	0.13	0.01
366412.06	3757743.84	105.79	0.12	0.01
366449.10	3757556.84	105.81	0.15	0.01
366471.13	3757711.22	105.79	0.12	0.01
366487.79	3757468.29	105.83	0.16	0.01
366526.47	3757379.74	105.87	0.18	0.01
366543.32	3757684.41	105.79	0.12	0.01
366565.16	3757291.19	105.91	0.19	0.01
366572.51	3757755.35	105.81	0.12	0.01
366603.85	3757202.64	105.95	0.19	0.01
366629.35	3757738.18	105.81	0.12	0.01
366642.53	3757114.09	105.91	0.18	0.01
366681.22	3757025.54	105.93	0.16	0.01
366700.77	3757739.37	105.81	0.12	0.01
366719.91	3756936.99	105.97	0.14	0.01
366758.59	3756848.44	106.02	0.13	0.01
366780.64	3757782.90	105.83	0.12	0.01
366797.28	3756759.89	105.97	0.13	0.01
366835.96	3756671.34	105.95	0.14	0.01
366869.69	3757831.79	105.85	0.13	0.01

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
368312.17	3757967.29	106.14	0.17	0.01
368386.06	3757966.42	106.16	0.18	0.01
368402.45	3755476.67	106.17	0.30	0.02
368459.96	3757965.55	106.17	0.17	0.01
368494.71	3755475.51	106.18	0.32	0.02
368533.85	3757964.68	106.11	0.16	0.01
368533.98	3757935.39	106.11	0.16	0.01
368586.97	3755474.35	106.20	0.36	0.02
368594.27	3757948.47	106.12	0.16	0.01
368657.87	3757978.44	106.13	0.16	0.01
368679.22	3755473.19	106.21	0.40	0.02
368710.99	3758011.46	106.13	0.17	0.01
368748.06	3758034.51	106.16	0.17	0.01
368771.48	3755472.04	106.20	0.44	0.02
368806.72	3758070.98	106.28	0.16	0.01
368863.73	3755470.88	106.19	0.47	0.02
368865.39	3758107.46	106.19	0.15	0.01
368931.37	3758150.49	106.14	0.17	0.01
368955.99	3755469.72	106.19	0.47	0.02
368974.29	3758177.61	106.13	0.17	0.01
368992.63	3758138.09	106.14	0.17	0.01
369011.06	3758086.77	106.17	0.19	0.01
369048.25	3755468.56	106.20	0.45	0.02
369097.31	3758131.13	106.14	0.17	0.01
369140.50	3755467.40	106.20	0.40	0.02

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
366874.65	3756582.79	105.94	0.15	0.01
366900.00	3756500.00	106.00	0.15	0.01
366913.34	3756494.23	106.00	0.16	0.01
366921.75	3757860.58	105.87	0.14	0.01
366952.02	3756405.68	106.07	0.18	0.01
366982.97	3757895.00	105.88	0.15	0.01
366990.71	3756317.13	106.04	0.19	0.01
367029.39	3756228.58	106.09	0.18	0.01
367044.19	3757929.41	105.89	0.15	0.01
367068.08	3756140.03	106.12	0.16	0.01
367106.77	3756051.48	106.15	0.14	0.01
367145.45	3755962.93	106.20	0.17	0.01
367163.35	3757937.75	105.90	0.17	0.01
367184.14	3755874.38	106.24	0.18	0.01
367222.83	3755785.83	106.18	0.19	0.01
367261.51	3755697.28	106.12	0.18	0.01
367284.84	3757912.25	105.91	0.16	0.01
367300.20	3755608.73	106.10	0.17	0.01
367338.88	3755520.18	106.15	0.15	0.01
367348.39	3757912.82	105.92	0.16	0.01
367377.57	3755431.63	106.11	0.15	0.01
367401.92	3757982.92	105.95	0.15	0.01
367464.88	3755430.72	106.10	0.16	0.01
367498.60	3757937.52	105.96	0.16	0.01
367539.80	3757864.76	105.94	0.17	0.01

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
370792.87	3757995.38	106.24	0.27	0.02
370797.01	3758107.02	106.23	0.24	0.02
370798.36	3758194.12	106.31	0.23	0.02
370798.51	3757946.46	106.27	0.29	0.02
370799.71	3758281.23	106.36	0.21	0.01
370807.53	3755529.02	106.06	0.23	0.02
370818.52	3757901.47	106.28	0.32	0.02
370851.08	3757864.53	106.26	0.35	0.03
370854.34	3755560.20	106.07	0.23	0.02
370901.14	3755591.38	106.06	0.23	0.02
370908.58	3757858.61	106.28	0.38	0.03
370929.68	3755646.61	106.10	0.23	0.02
370932.48	3755705.67	106.13	0.24	0.02
370959.17	3757378.41	113.09	0.74	0.08
370959.96	3757296.11	116.25	0.87	0.08
370960.75	3757213.81	120.69	0.75	0.10
370961.54	3757131.50	129.14	0.74	0.13
370962.33	3757049.20	142.42	1.14	0.19
370963.12	3756966.90	173.41	1.99	0.38
370966.07	3757852.69	106.35	0.39	0.03
370968.09	3757808.70	106.33	0.44	0.03
370983.75	3755705.22	106.14	0.24	0.02
370986.42	3755628.02	106.07	0.23	0.02
370989.10	3755550.81	106.06	0.22	0.01
370991.77	3755473.61	106.06	0.20	0.01

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
369216.91	3758091.16	106.12	0.17	0.01
369232.76	3755466.24	106.20	0.33	0.02
369267.76	3758146.04	106.07	0.15	0.01
369271.60	3758257.04	106.07	0.14	0.01
369323.20	3758086.63	106.08	0.16	0.01
369328.65	3758304.45	106.08	0.15	0.01
369329.84	3755464.79	106.18	0.27	0.02
369342.43	3757939.52	106.09	0.18	0.01
369386.54	3758429.44	106.08	0.13	0.01
369387.36	3758507.02	106.09	0.11	0.01
369409.11	3758008.60	106.12	0.17	0.01
369426.92	3755463.35	106.21	0.25	0.02
369468.66	3758583.75	106.11	0.11	0.01
369524.00	3755461.90	106.21	0.22	0.02
369549.13	3758582.89	106.11	0.14	0.01
369621.08	3755460.45	106.15	0.27	0.02
369629.61	3758582.03	106.12	0.19	0.01
369710.08	3758581.17	106.14	0.19	0.01
369718.16	3755459.00	106.15	0.29	0.02
369787.02	3758286.68	106.06	0.21	0.01
369788.19	3758398.38	106.08	0.19	0.01
369789.37	3758489.35	106.12	0.17	0.01
369815.24	3755457.56	106.12	0.35	0.02
369882.84	3758285.07	106.06	0.17	0.01
369912.32	3755456.11	106.13	0.35	0.02

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
371017.44	3757371.98	112.99	0.77	0.09
371039.92	3757778.95	106.41	0.49	0.03
371061.56	3756965.39	163.08	1.43	0.30
371064.57	3755405.04	106.04	0.17	0.01
371078.64	3757842.57	106.41	0.39	0.03
371116.65	3757378.24	111.95	0.98	0.13
371117.35	3757906.19	106.47	0.38	0.03
371160.25	3755403.96	106.03	0.17	0.01
371160.00	3756963.88	151.06	1.64	0.27
371173.76	3757954.26	106.51	0.39	0.03
371174.47	3757986.09	106.53	0.36	0.03
371208.04	3757297.08	113.40	1.68	0.12
371208.86	3757379.92	111.06	1.85	0.17
371210.97	3757210.00	118.71	1.12	0.11
371243.87	3757985.25	106.56	0.33	0.03
371255.94	3755402.89	106.02	0.17	0.01
371258.45	3756962.36	149.49	2.91	0.32
371275.69	3757208.66	117.26	0.93	0.11
371313.27	3757984.41	106.60	0.27	0.03
371348.54	3758024.62	106.58	0.24	0.03
371351.62	3755401.81	105.98	0.17	0.01
371356.75	3757207.46	115.30	1.01	0.13
371356.89	3756960.85	133.72	4.01	0.21
371402.37	3758061.24	106.63	0.26	0.02
371437.81	3757206.27	112.25	0.83	0.15

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
369978.66	3758283.45	106.07	0.17	0.01
370009.40	3755454.66	106.06	0.28	0.02
370056.44	3758282.14	106.09	0.16	0.01
370106.48	3755453.21	106.07	0.29	0.02
370130.90	3758282.44	106.10	0.15	0.01
370203.56	3755451.77	106.09	0.26	0.02
370226.81	3758159.47	106.10	0.17	0.01
370227.55	3758221.46	106.10	0.16	0.01
370228.30	3758283.44	106.13	0.15	0.01
370253.14	3758168.84	106.11	0.17	0.01
370300.64	3755450.32	106.09	0.22	0.02
370308.97	3758176.51	106.11	0.15	0.01
370356.87	3758202.23	106.12	0.15	0.01
370397.72	3755448.87	106.15	0.19	0.02
370404.21	3758225.88	106.14	0.16	0.01
370422.64	3758284.19	106.19	0.16	0.01
370442.78	3758228.43	106.15	0.17	0.01
370465.02	3755455.18	106.09	0.19	0.02
370522.53	3758282.84	106.22	0.18	0.01
370558.15	3755458.94	106.06	0.22	0.02
370622.42	3758281.49	106.27	0.20	0.01
370624.63	3755467.51	106.09	0.24	0.02
370691.11	3755476.08	106.07	0.23	0.02
370722.31	3758280.14	106.32	0.21	0.01
370757.38	3755493.32	106.05	0.23	0.02

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
372156.97	3757518.41	115.10	1.15	0.27
372159.47	3757596.96	115.21	1.53	0.29
372161.97	3757675.51	113.54	2.23	0.45
372164.46	3757754.06	113.62	1.89	0.34
372232.73	3755391.79	106.11	0.10	0.01
372242.87	3756947.24	121.87	0.35	0.05
372332.18	3755388.15	106.18	0.09	0.01
372341.31	3756945.73	125.60	0.36	0.05
372410.73	3755381.99	106.22	0.08	0.01
372439.76	3756944.21	132.36	0.35	0.05
372489.28	3755375.83	106.19	0.08	0.01
372538.20	3756942.70	135.97	0.36	0.05
372567.83	3755369.67	106.03	0.08	0.01
372621.24	3755369.96	106.00	0.07	0.01
372627.96	3756505.77	109.72	0.17	0.02
372628.35	3756589.05	110.46	0.21	0.02
372630.81	3757026.03	149.24	0.38	0.07
372632.23	3757120.50	165.51	0.44	0.11
372632.53	3756752.34	113.71	0.25	0.03
372634.59	3756846.76	117.76	0.30	0.04
372634.70	3757211.58	167.65	0.69	0.11
372636.64	3756941.19	132.00	0.37	0.05
372650.02	3757248.61	167.38	0.83	0.12
372671.90	3757332.14	161.63	1.25	0.19
372672.36	3756975.42	136.12	0.41	0.06

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
371447.31	3755400.73	105.93	0.16	0.01
371455.33	3756959.34	123.49	2.95	0.12
371474.09	3758110.88	106.83	0.25	0.02
371518.87	3757205.07	111.82	0.89	0.11
371537.39	3758154.69	106.79	0.24	0.02
371542.99	3755399.65	105.95	0.15	0.01
371599.93	3757203.87	111.83	0.83	0.11
371600.70	3758198.51	106.84	0.20	0.02
371613.52	3756957.47	116.73	1.24	0.08
371638.68	3755398.58	105.98	0.14	0.01
371652.22	3756956.31	115.83	1.10	0.08
371664.00	3758242.33	106.91	0.19	0.02
371678.83	3757376.47	112.06	3.06	0.25
371680.99	3757202.68	112.23	0.79	0.10
371683.71	3757291.78	112.16	1.31	0.12
371734.36	3755397.50	105.97	0.14	0.01
371750.66	3756954.80	114.51	0.84	0.07
371767.81	3758230.27	107.13	0.19	0.02
371801.04	3755399.23	105.98	0.13	0.01
371812.25	3757364.20	112.76	3.66	0.17
371825.62	3758161.92	107.23	0.21	0.03
371849.10	3756953.29	114.32	0.67	0.06
371866.03	3757363.09	113.36	2.21	0.16
371867.72	3755400.96	105.99	0.13	0.01
371895.02	3758059.68	107.39	0.27	0.03

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
372672.57	3757018.04	147.55	0.43	0.08
372692.63	3756588.53	111.63	0.18	0.02
372694.60	3756751.91	114.16	0.25	0.03
372697.78	3755368.97	106.03	0.07	0.01
372704.41	3757417.13	165.83	4.32	1.11
372725.34	3756505.44	110.18	0.17	0.02
372730.58	3756678.55	113.46	0.20	0.03
372739.22	3757507.15	146.93	2.77	0.66
372756.67	3756751.48	115.08	0.21	0.03
372768.35	3756973.59	130.03	0.34	0.06
372770.71	3757656.89	138.65	0.99	0.15
372773.23	3757598.18	139.73	1.70	0.23
372774.32	3755367.98	106.14	0.08	0.01
372774.75	3757745.62	120.61	0.57	0.11
372784.40	3757635.25	138.95	1.14	0.18
372822.71	3756505.12	111.59	0.15	0.02
372839.80	3757745.93	124.78	0.49	0.12
372850.87	3755366.99	106.07	0.08	0.01
372864.35	3756971.76	122.04	0.26	0.07
372904.85	3757746.24	127.79	0.52	0.14
372910.27	3757732.13	130.47	0.55	0.15
372919.43	3756436.58	109.81	0.13	0.02
372920.09	3756504.79	111.09	0.14	0.02
372927.41	3755366.00	106.03	0.08	0.01
372927.86	3755465.33	106.07	0.08	0.01

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
371898.90	3758134.17	107.31	0.22	0.03
371909.58	3757435.59	112.17	5.91	0.59
371916.85	3757398.54	113.24	2.25	0.24
371917.20	3757362.27	113.62	1.56	0.15
371927.01	3757742.18	109.53	1.16	0.16
371928.06	3757790.69	110.62	0.96	0.12
371934.40	3755402.69	106.05	0.12	0.01
371934.40	3757852.44	108.79	0.61	0.08
371937.61	3757919.43	109.16	0.45	0.06
371940.82	3757986.42	108.54	0.36	0.04
371944.03	3758053.41	107.66	0.29	0.04
371947.54	3756951.78	112.92	0.55	0.06
371954.98	3757424.18	113.10	2.39	0.32
372007.70	3757423.51	113.86	1.62	0.31
372031.48	3757755.88	111.13	2.82	0.27
372033.85	3755399.05	106.15	0.11	0.01
372045.99	3756950.26	116.65	0.45	0.05
372060.42	3757422.83	114.66	1.24	0.33
372097.97	3757754.97	113.05	3.87	0.57
372114.62	3757440.24	115.89	1.22	0.36
372133.29	3755395.42	106.13	0.10	0.01
372144.43	3756948.75	119.23	0.39	0.05
372152.01	3757362.33	117.27	0.64	0.15
372153.80	3757418.83	117.17	0.85	0.36
372154.47	3757439.86	116.76	1.05	0.44

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
371031.93	3758057.86	106.47	0.30	0.02
371034.38	3758338.88	106.44	0.15	0.01
371091.65	3754274.94	105.86	0.12	0.01
371165.78	3758547.83	106.47	0.12	0.01
372241.00	3757383.00	120.11	0.55	0.21
372703.01	3761799.64	105.68	0.03	0.00
374194.97	3754806.86	105.68	0.04	0.00
374697.43	3760305.50	105.67	0.05	0.00
375423.74	3758805.14	105.68	0.10	0.01
375433.42	3757541.59	105.68	0.12	0.01
378090.06	3758535.33	105.67	0.09	0.01
368494.88	3756671.28	110.43	0.44	0.04
370394.80	3756845.73	182.20	5.55	0.48
368983.23	3754581.57	105.98	0.13	0.01
369216.41	3758422.45	106.07	0.12	0.01
369532.57	3755391.67	108.57	0.25	0.02
369574.04	3758166.39	106.11	0.17	0.01
369581.37	3758516.07	106.09	0.16	0.01
369830.08	3755394.84	106.23	0.36	0.02
370114.12	3758186.53	106.07	0.16	0.01
371021.69	3757820.60	106.36	0.43	0.03
366809.77	3757837.27	105.85	0.13	0.01
366843.26	3757860.52	105.86	0.13	0.01
366900.00	3758500.00	105.96	0.08	0.01
366900.00	3762500.00	105.94	0.03	0.00

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
372928.32	3755564.67	106.10	0.09	0.01
372928.77	3755664.00	106.15	0.09	0.01
372929.23	3755763.34	106.26	0.09	0.01
372947.75	3756971.61	121.91	0.23	0.10
372992.82	3755761.76	106.10	0.09	0.01
372995.87	3757731.75	134.92	0.59	0.14
373004.43	3756435.35	108.26	0.13	0.02
373031.15	3756971.45	121.95	0.21	0.07
373056.40	3755760.18	106.08	0.08	0.01
373057.59	3755829.92	106.11	0.08	0.01
373058.79	3755899.65	106.15	0.09	0.01
373077.68	3757731.38	135.83	0.49	0.14
373089.44	3756434.13	107.16	0.12	0.01
373118.11	3756991.19	119.77	0.21	0.06
373137.84	3755759.39	105.97	0.08	0.01
373138.33	3755829.37	106.00	0.08	0.01
373138.82	3755899.35	106.03	0.08	0.01
373159.49	3757731.01	134.77	0.57	0.15
373174.45	3756432.91	106.98	0.11	0.01
373179.17	3757023.66	120.92	0.24	0.06
373213.14	3755758.34	105.89	0.08	0.01
373236.62	3757073.64	121.30	0.21	0.07
373241.30	3757730.64	145.45	0.52	0.14
373259.45	3756431.68	106.92	0.10	0.01
373288.44	3755757.29	105.84	0.07	0.01

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
366900.00	3763500.00	105.83	0.02	0.00
366900.00	3764500.00	105.74	0.02	0.00
366982.41	3757958.65	105.88	0.15	0.01
367163.97	3758028.80	105.92	0.15	0.01
367275.38	3757999.92	105.94	0.15	0.01
367395.04	3758065.94	105.96	0.13	0.01
367880.40	3758145.84	106.03	0.15	0.01
367900.00	3761500.00	105.96	0.03	0.00
367900.00	3762500.00	105.87	0.02	0.00
367900.00	3764500.00	105.69	0.02	0.00
368068.97	3758068.94	106.10	0.16	0.01
368182.48	3758015.85	106.06	0.16	0.01
368416.83	3757988.39	106.17	0.18	0.01
368577.94	3757979.23	106.12	0.15	0.01
368764.68	3758079.93	106.19	0.16	0.01
368900.00	3754500.00	105.98	0.12	0.01
368900.00	3759500.00	106.11	0.07	0.00
368900.00	3761500.00	105.92	0.04	0.00
368900.00	3762500.00	105.77	0.03	0.00
368900.00	3763500.00	105.70	0.03	0.00
368900.00	3764500.00	105.70	0.03	0.00
368944.10	3758186.12	106.13	0.16	0.01
369206.25	3758147.26	106.11	0.16	0.01
369268.49	3758066.34	106.12	0.17	0.01
369333.85	3757999.43	106.13	0.17	0.01

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
373303.06	3757072.90	116.02	0.19	0.06
373317.14	3756432.03	106.77	0.09	0.01
373323.11	3757730.27	137.96	0.45	0.12
373323.28	3757744.87	136.01	0.44	0.12
373363.74	3755756.24	105.78	0.07	0.01
373365.13	3755845.96	105.81	0.08	0.01
373366.53	3755935.69	105.94	0.08	0.01
373367.92	3756025.41	106.14	0.09	0.01
373369.31	3756115.13	106.16	0.09	0.01
373369.50	3757072.16	113.51	0.18	0.05
373370.37	3757159.75	119.03	0.21	0.10
373370.71	3756204.86	106.44	0.09	0.01
373371.24	3757247.34	130.61	0.22	0.18
373372.10	3756294.58	106.49	0.09	0.01
373372.12	3757334.94	129.29	0.30	0.10
373372.99	3757422.53	125.69	0.37	0.14
373373.72	3756378.86	106.56	0.09	0.01
373373.86	3757510.12	134.72	0.71	0.17
373374.73	3757597.71	139.74	0.70	0.15
373374.83	3756432.37	106.61	0.09	0.01
373375.60	3757685.31	132.64	0.51	0.13
373393.43	3757684.85	131.58	0.50	0.13
373394.30	3757744.19	129.00	0.42	0.11
367047.63	3761097.01	106.00	0.04	0.00
370737.54	3762942.92	105.80	0.02	0.00

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
373641.00	3757483.00	113.65	0.36	0.07
373641.00	3757583.00	115.30	0.50	0.08
373641.00	3757683.00	117.47	0.42	0.08
373641.00	3757783.00	118.01	0.32	0.08
373641.00	3757883.00	115.55	0.28	0.06
373641.00	3757983.00	113.75	0.27	0.05
373687.89	3757980.08	114.05	0.26	0.05
373900.00	3753500.00	105.68	0.04	0.00
373900.00	3754500.00	105.68	0.04	0.00
373900.00	3755500.00	105.75	0.06	0.00
373900.00	3756500.00	105.77	0.08	0.01
373900.00	3757500.00	109.04	0.29	0.05
373900.00	3758500.00	106.27	0.15	0.02
373900.00	3760500.00	105.69	0.06	0.00
373900.00	3761500.00	105.67	0.03	0.00
373900.00	3764500.00	105.67	0.01	0.00
374900.00	3754500.00	105.68	0.04	0.00
374900.00	3755500.00	105.68	0.04	0.00
374900.00	3756500.00	105.68	0.06	0.01
374900.00	3757500.00	105.68	0.14	0.02
374900.00	3759500.00	105.68	0.11	0.01
374900.00	3760500.00	105.67	0.04	0.00
374900.00	3761500.00	105.67	0.04	0.00
374900.00	3762500.00	105.67	0.02	0.00
374900.00	3763500.00	105.67	0.02	0.00

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
369425.60	3758641.99	106.12	0.10	0.01
369599.53	3758634.67	106.14	0.17	0.01
369775.29	3758632.83	106.14	0.17	0.01
369834.01	3758329.33	106.06	0.18	0.01
369900.00	3754500.00	105.96	0.17	0.01
369900.00	3758500.00	106.15	0.14	0.01
369900.00	3759500.00	106.13	0.08	0.00
369900.00	3761500.00	105.81	0.04	0.00
369900.00	3762500.00	105.80	0.03	0.00
369900.00	3764500.00	105.78	0.02	0.00
370006.10	3758331.16	106.10	0.16	0.01
370183.69	3758338.49	106.14	0.14	0.01
370425.35	3758336.66	106.22	0.16	0.01
370701.79	3758334.82	106.27	0.19	0.01
370780.52	3758327.50	106.28	0.19	0.01
370900.00	3759500.00	106.15	0.10	0.00
370900.00	3760500.00	105.92	0.05	0.00
370900.00	3762500.00	105.83	0.03	0.00
370900.00	3763500.00	105.73	0.02	0.00
370900.00	3764500.00	105.69	0.01	0.00
371295.29	3758036.94	106.56	0.23	0.02
371421.46	3758118.19	106.66	0.23	0.02
371550.51	3758209.00	106.81	0.21	0.02
371685.28	3758299.81	107.04	0.18	0.02
371754.11	3758291.20	107.06	0.18	0.02

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
374900.00	3764500.00	105.67	0.02	0.00
375900.00	3753500.00	105.67	0.02	0.00
375900.00	3755500.00	105.67	0.04	0.00
375900.00	3756500.00	105.68	0.04	0.00
375900.00	3760500.00	105.67	0.09	0.00
375900.00	3761500.00	105.67	0.03	0.00
375900.00	3762500.00	105.67	0.03	0.00
375900.00	3763500.00	105.67	0.02	0.00
375900.00	3764500.00	105.67	0.02	0.00
376084.62	3761776.42	105.67	0.02	0.00
376900.00	3755500.00	105.67	0.03	0.00
376900.00	3756500.00	105.67	0.03	0.00
376900.00	3758500.00	105.67	0.10	0.01
376900.00	3759500.00	105.67	0.06	0.01
376900.00	3760500.00	105.67	0.07	0.00
376900.00	3761500.00	105.67	0.07	0.00
376900.00	3762500.00	105.67	0.02	0.00
376900.00	3764500.00	105.67	0.01	0.00
377900.00	3753500.00	105.67	0.01	0.00
377900.00	3754500.00	105.67	0.02	0.00
377900.00	3755500.00	105.67	0.02	0.00
377900.00	3756500.00	105.67	0.04	0.00
377900.00	3757500.00	105.67	0.05	0.01
377900.00	3759500.00	105.67	0.06	0.01
377900.00	3760500.00	105.67	0.04	0.00

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
371807.64	3758213.78	107.17	0.19	0.02
371874.55	3758164.07	107.26	0.21	0.03
371900.00	3758500.00	106.61	0.14	0.01
371900.00	3759500.00	105.83	0.07	0.01
371900.00	3762500.00	105.70	0.04	0.00
371900.00	3763500.00	105.68	0.02	0.00
371933.81	3758104.81	107.38	0.24	0.03
372241.00	3757883.00	112.00	0.59	0.09
372241.00	3757983.00	110.42	0.41	0.05
372341.00	3757883.00	112.16	0.65	0.09
372341.00	3757983.00	110.64	0.44	0.06
372900.00	3753500.00	105.77	0.07	0.00
372900.00	3754500.00	105.88	0.07	0.00
372900.00	3759500.00	105.88	0.08	0.01
372900.00	3760500.00	105.74	0.04	0.00
372900.00	3761500.00	105.68	0.03	0.00
372900.00	3762500.00	105.68	0.02	0.00
373541.00	3757783.00	119.97	0.35	0.08
373541.00	3757883.00	117.72	0.31	0.06
373541.00	3757983.00	115.04	0.27	0.05
373641.00	3756983.00	107.41	0.13	0.02
373641.00	3757083.00	108.58	0.14	0.03
373641.00	3757183.00	109.27	0.16	0.04
373641.00	3757283.00	109.73	0.20	0.05
373641.00	3757383.00	111.94	0.23	0.06

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
382900.00	3756500.00	105.67	0.02	0.00
382900.00	3757500.00	105.67	0.02	0.00
382900.00	3758500.00	105.67	0.04	0.00
382900.00	3759500.00	105.67	0.04	0.00
382900.00	3760500.00	105.66	0.03	0.00
382900.00	3761500.00	105.66	0.02	0.00
382900.00	3762500.00	105.66	0.02	0.00
382900.00	3763500.00	105.66	0.02	0.00
382900.00	3764500.00	105.66	0.03	0.00
383900.00	3753500.00	105.66	0.01	0.00
383900.00	3754500.00	105.66	0.01	0.00
383900.00	3755500.00	105.67	0.01	0.00
383900.00	3756500.00	105.67	0.01	0.00
383900.00	3757500.00	105.67	0.02	0.00
383900.00	3762500.00	105.66	0.03	0.00
383900.00	3763500.00	105.66	0.02	0.00
383900.00	3764500.00	105.66	0.03	0.00
384900.00	3753500.00	105.66	0.01	0.00
384900.00	3754500.00	105.66	0.01	0.00
384900.00	3755500.00	105.66	0.01	0.00
384900.00	3756500.00	105.66	0.01	0.00
384900.00	3757500.00	105.66	0.02	0.00
384900.00	3758500.00	105.66	0.02	0.00
384900.00	3759500.00	105.66	0.04	0.00
384900.00	3760500.00	105.66	0.03	0.00

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
377900.00	3761500.00	105.67	0.05	0.00
377900.00	3762500.00	105.67	0.04	0.00
377900.00	3763500.00	105.67	0.02	0.00
377900.00	3764500.00	105.67	0.02	0.00
378528.59	3764156.44	105.67	0.01	0.00
378900.00	3753500.00	105.67	0.01	0.00
378900.00	3755500.00	105.67	0.03	0.00
378900.00	3756500.00	105.67	0.04	0.00
378900.00	3757500.00	105.67	0.04	0.00
378900.00	3758500.00	105.67	0.09	0.01
378900.00	3759500.00	105.67	0.05	0.01
378900.00	3760500.00	105.67	0.04	0.00
378900.00	3762500.00	105.67	0.05	0.00
378900.00	3763500.00	105.67	0.02	0.00
378900.00	3764500.00	105.67	0.01	0.00
378902.85	3757271.45	105.67	0.04	0.00
379900.00	3754500.00	105.67	0.03	0.00
379900.00	3755500.00	105.67	0.03	0.00
379900.00	3756500.00	105.67	0.03	0.00
379900.00	3757500.00	105.67	0.04	0.00
379900.00	3759500.00	105.67	0.04	0.01
379900.00	3760500.00	105.67	0.03	0.00
379900.00	3761500.00	105.67	0.03	0.00
379900.00	3762500.00	105.67	0.04	0.00
379900.00	3763500.00	105.66	0.05	0.00

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
384900.00	3761500.00	105.66	0.02	0.00
384900.00	3762500.00	105.66	0.02	0.00
384900.00	3763500.00	105.66	0.02	0.00
384900.00	3764500.00	105.66	0.02	0.00
371641.00	3756983.00	115.23	0.98	0.09
371741.00	3756983.00	114.92	0.82	0.08
371841.00	3756983.00	114.39	0.70	0.07
371941.00	3756983.00	112.93	0.59	0.06
371941.00	3757683.00	111.59	1.25	0.24
372041.00	3756983.00	115.49	0.50	0.06
372141.00	3756983.00	119.69	0.45	0.06
372241.00	3756983.00	123.68	0.40	0.06
372341.00	3756983.00	127.10	0.38	0.05
372441.00	3756983.00	134.14	0.36	0.06
372541.00	3756983.00	139.90	0.39	0.06
372641.00	3756983.00	139.83	0.40	0.07
373241.00	3756983.00	117.28	0.22	0.05
373341.00	3756983.00	112.28	0.15	0.04
373441.00	3756983.00	109.61	0.14	0.03
373441.00	3757583.00	128.34	0.68	0.13
373441.00	3757683.00	128.95	0.46	0.12
373441.00	3757783.00	123.45	0.36	0.09
373441.00	3757883.00	119.17	0.32	0.07
373441.00	3757983.00	114.90	0.28	0.05
373541.00	3756983.00	108.50	0.13	0.03

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
379900.00	3764500.00	105.67	0.02	0.00
380900.00	3753500.00	105.66	0.01	0.00
380900.00	3754500.00	105.66	0.02	0.00
380900.00	3755500.00	105.67	0.02	0.00
380900.00	3756500.00	105.67	0.03	0.00
380900.00	3757500.00	105.67	0.03	0.00
380900.00	3758500.00	105.67	0.06	0.00
380900.00	3759500.00	105.67	0.04	0.00
380900.00	3760500.00	105.67	0.03	0.00
380900.00	3761500.00	105.67	0.03	0.00
380900.00	3762500.00	105.66	0.03	0.00
380900.00	3763500.00	105.66	0.03	0.00
381900.00	3754500.00	105.66	0.02	0.00
381900.00	3755500.00	105.67	0.02	0.00
381900.00	3756500.00	105.67	0.02	0.00
381900.00	3757500.00	105.67	0.03	0.00
381900.00	3759500.00	105.67	0.04	0.00
381900.00	3760500.00	105.67	0.03	0.00
381900.00	3761500.00	105.66	0.03	0.00
381900.00	3762500.00	105.66	0.03	0.00
381900.00	3763500.00	105.66	0.04	0.00
381900.00	3764500.00	105.66	0.04	0.00
382900.00	3753500.00	105.66	0.01	0.00
382900.00	3754500.00	105.66	0.01	0.00
382900.00	3755500.00	105.67	0.01	0.00

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
370968.58	3759443.63	106.16	0.08	0.00
371139.14	3758179.30	106.49	0.19	0.02
371516.05	3762577.75	105.75	0.03	0.00
371721.40	3759371.61	105.92	0.08	0.01
371973.81	3758892.65	106.15	0.11	0.01
372687.72	3759513.01	105.85	0.08	0.01
372943.49	3761051.66	105.70	0.04	0.00
373546.52	3760907.48	105.68	0.04	0.00
373736.60	3756503.93	105.86	0.08	0.01
373758.20	3758043.23	112.62	0.24	0.04
373781.58	3755802.14	105.82	0.07	0.01
373814.20	3756040.57	105.83	0.07	0.01
373990.06	3753826.14	105.68	0.06	0.00
374057.73	3758196.51	108.43	0.19	0.03
374270.95	3758673.42	106.62	0.12	0.02
374561.05	3757642.94	106.50	0.23	0.03
374688.84	3758984.90	105.79	0.09	0.01
374693.96	3758983.17	105.78	0.09	0.01
374717.46	3762574.39	105.67	0.02	0.00
375503.80	3764537.77	105.67	0.02	0.00
375614.97	3760555.10	105.67	0.09	0.00
375718.04	3758204.95	105.68	0.13	0.02
375902.79	3764940.52	105.67	0.01	0.00
375908.38	3763938.71	105.67	0.02	0.00
375920.60	3762083.39	105.67	0.03	0.00

LAX Landside Access Modernization Program Project, Final EIR

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
373541.00	3757083.00	109.65	0.16	0.03
373541.00	3757183.00	112.80	0.16	0.05
373541.00	3757283.00	112.84	0.22	0.07
373541.00	3757383.00	113.55	0.25	0.07
373541.00	3757483.00	116.81	0.43	0.09
373541.00	3757583.00	119.85	0.58	0.10
373541.00	3757683.00	121.51	0.42	0.10
366455.27	3763213.67	105.88	0.02	0.00
366669.62	3763342.53	105.86	0.02	0.00
366671.31	3762769.21	105.91	0.02	0.00
367494.53	3758314.82	106.01	0.12	0.01
367575.16	3764900.80	105.69	0.01	0.00
367638.49	3757975.16	105.99	0.14	0.01
367728.62	3761967.19	105.94	0.03	0.00
367787.59	3758292.62	106.03	0.14	0.01
367831.34	3763245.91	105.79	0.02	0.00
367900.00	3758500.00	106.02	0.11	0.01
367926.08	3763311.16	105.77	0.02	0.00
367964.98	3758232.97	106.08	0.13	0.01
367976.37	3763336.74	105.76	0.02	0.00
367978.91	3758390.10	106.03	0.11	0.01
368188.78	3758591.47	106.03	0.09	0.01
368501.11	3761632.38	105.95	0.03	0.00
368505.49	3758571.22	106.03	0.11	0.01
368673.29	3761677.69	105.92	0.03	0.00

Construction Dispersion Summary.xlsx proposed Project (M)

LAX Landside Access Modernization Program Project, Final EIR

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
376709.15	3756388.48	105.67	0.03	0.00
376814.39	3754856.21	105.67	0.02	0.00
377050.15	3761774.29	105.67	0.05	0.00
377052.34	3761911.90	105.67	0.04	0.00
377227.14	3756422.42	105.67	0.03	0.00
377237.88	3763993.21	105.67	0.02	0.00
377313.01	3756205.13	105.67	0.03	0.00
377330.56	3760754.60	105.67	0.07	0.00
377342.37	3764027.27	105.67	0.02	0.00
377388.19	3762578.39	105.67	0.02	0.00
377563.47	3760340.44	105.67	0.05	0.00
377753.42	3759272.76	105.67	0.06	0.01
377839.66	3764649.02	105.67	0.02	0.00
377841.65	3762246.94	105.67	0.05	0.00
377908.39	3762502.03	105.67	0.04	0.00
377916.00	3755241.12	105.67	0.02	0.00
377924.86	3763642.88	105.67	0.02	0.00
377967.05	3762224.48	105.67	0.05	0.00
378003.52	3753139.05	105.67	0.02	0.00
378022.11	3755897.25	105.67	0.03	0.00
378066.59	3761432.90	105.67	0.05	0.00
378209.66	3764122.39	105.67	0.02	0.00
378212.33	3753511.52	105.67	0.01	0.00
378223.51	3760237.39	105.67	0.05	0.01
378326.90	3764105.95	105.67	0.02	0.00

Construction Dispersion Summary.xlsx proposed Project (M)

LAX Landside Access Modernization Program Project, Final EIR

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
368693.42	3758359.47	106.10	0.12	0.01
368842.92	3761590.39	105.91	0.04	0.00
368869.11	3754097.89	105.90	0.10	0.01
368869.83	3765067.00	105.70	0.02	0.00
368969.99	3761647.20	105.89	0.04	0.00
368970.54	3754677.64	105.98	0.14	0.01
369007.11	3762513.11	105.76	0.04	0.00
369227.99	3762251.91	105.76	0.04	0.00
369242.37	3754695.62	105.98	0.12	0.01
369456.98	3762567.48	105.74	0.03	0.00
369504.00	3754702.08	105.97	0.16	0.01
369767.91	3761150.98	105.88	0.04	0.00
369809.34	3764567.65	105.77	0.02	0.00
369845.18	3754154.97	105.93	0.16	0.01
369848.41	3753976.49	105.93	0.14	0.01
370097.88	3760014.31	106.07	0.07	0.00
370150.95	3754699.75	105.96	0.16	0.01
370192.96	3758860.70	106.24	0.11	0.01
370243.17	3759622.98	106.01	0.08	0.00
370246.20	3754243.12	105.91	0.12	0.01
370290.74	3759464.60	106.05	0.09	0.00
370608.78	3762239.97	105.87	0.02	0.00
370614.80	3762181.53	105.87	0.02	0.00
370625.96	3763759.08	105.74	0.02	0.00
370723.56	3763867.78	105.72	0.02	0.00

Construction Dispersion Summary.xlsx proposed Project (M)

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
371841.00	3757183.00	112.83	0.60	0.09
371841.00	3757283.00	112.69	1.21	0.10
371900.00	3753500.00	105.94	0.06	0.00
371900.00	3754500.00	105.96	0.11	0.01
371900.00	3760500.00	105.90	0.04	0.00
371900.00	3761500.00	105.77	0.03	0.00
371900.00	3764500.00	105.67	0.02	0.00
371941.00	3757083.00	114.78	0.46	0.08
371941.00	3757183.00	114.22	0.53	0.08
371941.00	3757283.00	113.74	0.79	0.10
371941.00	3757383.00	113.82	1.47	0.19
372041.00	3757083.00	115.36	0.47	0.07
372041.00	3757183.00	115.11	0.46	0.08
372041.00	3757283.00	115.50	0.57	0.10
372041.00	3757383.00	115.24	1.02	0.19
372041.00	3757783.00	112.44	1.60	0.18
372041.00	3757883.00	110.29	0.46	0.07
372041.00	3757983.00	108.85	0.36	0.05
372141.00	3757083.00	116.67	0.46	0.07
372141.00	3757183.00	117.52	0.41	0.07
372141.00	3757283.00	117.51	0.57	0.09
372141.00	3757783.00	113.58	1.54	0.22
372141.00	3757883.00	111.03	0.59	0.08
372141.00	3757983.00	110.27	0.39	0.05
372241.00	3757083.00	120.76	0.43	0.06

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
378366.51	3755075.26	105.67	0.02	0.00
378370.05	3759869.86	105.67	0.05	0.01
378781.96	3760336.17	105.67	0.05	0.00
378862.39	3757229.87	105.67	0.04	0.00
366900.00	3759500.00	105.99	0.05	0.00
367900.00	3759500.00	106.02	0.06	0.00
366900.00	3760500.00	106.03	0.04	0.00
366900.00	3761500.00	105.94	0.03	0.00
367900.00	3753500.00	105.90	0.08	0.00
367900.00	3754500.00	105.97	0.20	0.01
367900.00	3760500.00	106.02	0.04	0.00
367900.00	3763500.00	105.75	0.02	0.00
368900.00	3753500.00	105.89	0.07	0.00
368900.00	3758500.00	106.04	0.11	0.01
368900.00	3760500.00	105.97	0.04	0.00
369079.58	3758184.29	106.13	0.15	0.01
369900.00	3753500.00	105.92	0.11	0.00
369900.00	3760500.00	106.00	0.05	0.00
369900.00	3763500.00	105.79	0.02	0.00
370313.67	3758254.27	106.14	0.14	0.01
370834.03	3758177.01	106.32	0.24	0.02
370900.00	3753500.00	105.86	0.07	0.00
370900.00	3754500.00	105.91	0.12	0.01
370900.00	3755500.00	106.03	0.23	0.01
370900.00	3758500.00	106.37	0.13	0.01

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
372241.00	3757183.00	120.03	0.41	0.07
372241.00	3757283.00	120.23	0.66	0.09
372241.00	3757483.00	118.17	0.96	0.25
372241.00	3757583.00	116.86	0.88	0.20
372241.00	3757683.00	115.65	1.30	0.25
372241.00	3757783.00	114.45	1.06	0.19
372341.00	3757083.00	129.00	0.40	0.06
372341.00	3757183.00	124.93	0.41	0.07
372341.00	3757283.00	125.10	0.70	0.10
372341.00	3757383.00	125.78	0.61	0.22
372341.00	3757483.00	123.17	0.85	0.24
372341.00	3757583.00	121.25	0.77	0.17
372341.00	3757683.00	117.69	1.00	0.17
372341.00	3757783.00	114.74	0.79	0.15
372441.00	3757083.00	139.05	0.44	0.06
372441.00	3757183.00	134.59	0.53	0.08
372441.00	3757283.00	132.40	0.64	0.11
372441.00	3757383.00	133.01	0.87	0.25
372441.00	3757483.00	132.10	0.99	0.26
372441.00	3757583.00	127.08	0.84	0.16
372441.00	3757683.00	119.71	0.88	0.14
372441.00	3757783.00	116.47	0.64	0.13
372441.00	3757883.00	112.55	0.54	0.09
372441.00	3757983.00	110.78	0.49	0.06
372541.00	3757083.00	149.15	0.43	0.07

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2 01H8	*NAAQS* PM10 24H1	*NAAQS* PM10 AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
370900.00	3761500.00	105.90	0.05	0.00
370933.96	3757895.90	106.33	0.34	0.03
371041.00	3757083.00	134.44	0.91	0.16
371041.00	3757183.00	122.42	0.79	0.12
371041.00	3757283.00	115.68	0.90	0.10
371141.00	3757083.00	131.74	0.87	0.15
371141.00	3757183.00	121.35	0.97	0.11
371141.00	3757283.00	115.31	1.18	0.11
371150.00	3757970.99	106.50	0.37	0.03
371241.00	3757083.00	127.81	0.82	0.14
371241.00	3757183.00	119.45	0.88	0.11
371341.00	3757083.00	125.22	0.96	0.14
371341.00	3757183.00	116.04	0.89	0.12
371441.00	3757083.00	120.43	0.90	0.17
371441.00	3757183.00	113.75	0.80	0.15
371539.56	3757095.63	116.01	0.72	0.12
371540.36	3757178.31	113.13	0.79	0.11
371614.33	3757093.32	113.76	0.64	0.10
371615.15	3757177.59	112.43	0.79	0.10
371641.00	3757083.00	113.58	0.67	0.10
371641.00	3757183.00	112.23	0.79	0.10
371741.00	3757083.00	113.05	0.59	0.09
371741.00	3757183.00	111.98	0.68	0.09
371741.00	3757283.00	112.01	1.35	0.11
371841.00	3757083.00	113.51	0.52	0.08

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2	*NAAQS* PM10	*NAAQS* PM10
		01H8	24H1	AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
373441.00	3757183.00	120.16	0.19	0.08
373441.00	3757283.00	119.30	0.24	0.09
373441.00	3757383.00	122.08	0.30	0.09
373441.00	3757483.00	123.33	0.51	0.12
373900.00	3759500.00	105.71	0.08	0.01
373900.00	3762500.00	105.67	0.03	0.00
373900.00	3763500.00	105.67	0.02	0.00
374900.00	3753500.00	105.67	0.04	0.00
374900.00	3758500.00	105.71	0.12	0.02
375900.00	3754500.00	105.67	0.03	0.00
375900.00	3757500.00	105.68	0.09	0.01
375900.00	3758500.00	105.67	0.10	0.02
375900.00	3759500.00	105.67	0.07	0.01
376900.00	3753500.00	105.67	0.02	0.00
376900.00	3754500.00	105.67	0.02	0.00
376900.00	3757500.00	105.67	0.06	0.01
376900.00	3763500.00	105.67	0.02	0.00
377900.00	3758500.00	105.67	0.09	0.01
378900.00	3754500.00	105.67	0.02	0.00
378900.00	3761500.00	105.67	0.04	0.00
379900.00	3753500.00	105.67	0.01	0.00
379900.00	3758500.00	105.67	0.08	0.01
380900.00	3764500.00	105.66	0.04	0.00
381900.00	3753500.00	105.66	0.01	0.00
381900.00	3758500.00	105.67	0.05	0.00

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2	*NAAQS* PM10	*NAAQS* PM10
		01H8	24H1	AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
372541.00	3757183.00	153.22	0.61	0.09
372541.00	3757283.00	142.79	0.82	0.12
372541.00	3757383.00	153.61	1.48	0.26
372541.00	3757483.00	149.44	1.52	0.34
372541.00	3757583.00	131.48	0.97	0.17
372541.00	3757683.00	121.59	0.80	0.13
372541.00	3757783.00	115.35	0.65	0.11
372541.00	3757883.00	113.03	0.47	0.09
372541.00	3757983.00	110.76	0.41	0.06
372641.00	3757383.00	161.68	2.04	0.39
372641.00	3757483.00	173.76	2.42	0.76
372641.00	3757583.00	133.35	1.07	0.18
372641.00	3757683.00	125.18	0.91	0.13
372641.00	3757783.00	117.11	0.63	0.11
372641.00	3757883.00	113.53	0.41	0.08
372641.00	3757983.00	110.79	0.37	0.06
372741.00	3757683.00	132.62	0.90	0.14
372741.00	3757783.00	118.10	0.51	0.10
372741.00	3757883.00	113.27	0.37	0.08
372741.00	3757983.00	111.22	0.35	0.06
372841.00	3757783.00	121.67	0.44	0.11
372841.00	3757883.00	114.78	0.37	0.08
372841.00	3757983.00	112.11	0.31	0.06
372843.75	3756668.92	113.88	0.17	0.02
372857.79	3756854.91	118.03	0.23	0.04

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2	*NAAQS* PM10	*NAAQS* PM10
		01H8	24H1	AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
383900.00	3758500.00	105.67	0.03	0.00
383900.00	3759500.00	105.66	0.03	0.00
383900.00	3760500.00	105.66	0.03	0.00
383900.00	3761500.00	105.66	0.02	0.00

Criteria Dispersion Results - Proposed Project with Mitigation

Concentrations in units of ug/m³		*NAAQS* NO2	*NAAQS* PM10	*NAAQS* PM10
		01H8	24H1	AN00
UTM X	UTM Y	Avg Conc.	Avg Conc.	Avg Conc.
372900.00	3758500.00	107.62	0.20	0.02
372900.00	3763500.00	105.68	0.01	0.00
372900.00	3764500.00	105.67	0.02	0.00
372941.00	3757783.00	124.85	0.44	0.13
372941.00	3757883.00	117.36	0.34	0.07
372941.00	3757983.00	112.97	0.29	0.06
373035.50	3755453.68	106.00	0.08	0.01
373035.50	3755652.82	106.06	0.08	0.01
373041.00	3757783.00	127.74	0.45	0.11
373041.00	3757883.00	119.18	0.37	0.07
373041.00	3757983.00	115.22	0.30	0.06
373141.00	3757783.00	124.16	0.43	0.10
373141.00	3757883.00	120.34	0.33	0.07
373141.00	3757983.00	117.17	0.28	0.05
373241.00	3757783.00	130.10	0.46	0.10
373241.00	3757883.00	121.07	0.35	0.07
373241.00	3757983.00	115.48	0.29	0.05
373247.31	3756833.85	110.88	0.14	0.03
373250.82	3756654.89	107.79	0.11	0.02
373258.92	3755458.54	105.80	0.07	0.01
373278.35	3755647.97	105.81	0.07	0.01
373341.00	3757783.00	129.93	0.41	0.10
373341.00	3757883.00	120.31	0.33	0.07
373341.00	3757983.00	115.27	0.29	0.05
373441.00	3757083.00	112.34	0.17	0.04

Attachment F.*1*.3

Construction Concentrations– Toxic Air Contaminants

- Receptor Designations
- Receptor Locations
- TOG Specification Profiles
- PM10 Specification Profiles
- ROG Inputs – 1 Hour and 8 Hour
- PM10 Inputs – 1 Hour and 8 Hour
- Annual ROG Inputs
- Annual PM10 Inputs

Attachment F.*1*.3

Construction Concentrations– Toxic Air Contaminants

- ROG Inputs – 1 Hour and 8 Hour

Construction_HHRA_Inputs_ROG_Acute

April 2018 1-Hr

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 1 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	1.46E+01	369131.40	3758945.42	2.07E+00	369131.40	3758945.42	1.05E+00	369131.40	3758945.42	1.09E-01	369131.40	3758945.42	1.06E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.67E+01	369131.40	3758945.42	1.25E+00	369131.40	3758945.42	5.06E-01	369131.40	3758945.42	9.86E-02	369131.40	3758945.42	9.44E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.19E+01	369131.40	3758945.42	2.13E+00	369131.40	3758945.42	1.08E+00	369131.40	3758945.42	1.15E-01	369131.40	3758945.42	1.12E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.40E+01	369131.40	3758945.42	1.20E+00	369131.40	3758945.42	5.13E-01	369131.40	3758945.42	9.45E-02	369131.40	3758945.42	9.04E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.39E+01	369131.40	3758945.42	2.01E+00	369131.40	3758945.42	1.01E+00	369131.40	3758945.42	1.08E-01	369131.40	3758945.42	1.05E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.09E+01	369131.40	3758945.42	1.94E+00	369131.40	3758945.42	9.81E-01	369131.40	3758945.42	1.10E-01	369131.40	3758945.42	1.07E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.29E+00	369131.40	3758945.42	1.80E+00	369131.40	3758945.42	9.10E-01	369131.40	3758945.42	1.10E-01	369131.40	3758945.42	1.06E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.24E+01	369131.40	3758945.42	2.04E+00	369131.40	3758945.42	1.03E+00	369131.40	3758945.42	1.11E-01	369131.40	3758945.42	1.07E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.47E+01	369131.40	3758945.42	1.35E+00	369131.40	3758945.42	5.67E-01	369131.40	3758945.42	8.72E-02	369131.40	3758945.42	8.39E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.74E+00	369131.40	3758945.42	2.11E+00	369131.40	3758945.42	1.07E+00	369131.40	3758945.42	1.16E-01	369131.40	3758945.42	1.13E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.48E+00	369131.40	3758945.42	2.08E+00	369131.40	3758945.42	1.06E+00	369131.40	3758945.42	1.20E-01	369131.40	3758945.42	1.17E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.79E+01	369131.40	3758945.42	1.44E+00	369131.40	3758945.42	5.99E-01	369131.40	3758945.42	9.74E-02	369131.40	3758945.42	9.36E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.46E+00	369131.40	3758945.42	2.01E+00	369131.40	3758945.42	1.02E+00	369131.40	3758945.42	1.23E-01	369131.40	3758945.42	1.19E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.76E+00	369131.40	3758945.42	2.37E+00	369131.40	3758945.42	1.18E+00	369131.40	3758945.42	1.20E-01	369131.40	3758945.42	1.15E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.02E+00	369131.40	3758945.42	2.21E+00	369131.40	3758945.42	1.09E+00	369131.40	3758945.42	1.25E-01	369131.40	3758945.42	1.21E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.87E+01	369131.40	3758945.42	1.46E+00	369131.40	3758945.42	6.07E-01	369131.40	3758945.42	1.02E-01	369131.40	3758945.42	9.84E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.52E+00	369131.40	3758945.42	2.92E+00	369131.40	3758945.42	1.47E+00	369131.40	3758945.42	1.23E-01	369131.40	3758945.42	1.21E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.81E+01	369131.40	3758945.42	1.74E+00	369131.40	3758945.42	7.31E-01	369131.40	3758945.42	1.23E-01	369131.40	3758945.42	1.18E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.10E+00	369131.40	3758945.42	3.43E+00	369131.40	3758945.42	1.74E+00	369131.40	3758945.42	1.44E-01	369131.40	3758945.42	1.41E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.09E+01	369131.40	3758945.42	2.16E+00	369131.40	3758945.42	8.97E-01	369131.40	3758945.42	1.21E-01	369131.40	3758945.42	1.16E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.69E+01	369131.40	3758945.42	2.30E+00	369131.40	3758945.42	9.25E-01	369131.40	3758945.42	1.31E-01	369131.40	3758945.42	1.27E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.65E+00	369131.40	3758945.42	3.74E+00	369131.40	3758945.42	1.90E+00	369131.40	3758945.42	1.61E-01	369131.40	3758945.42	1.58E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.98E+01	369131.40	3758945.42	2.46E+00	369131.40	3758945.42	9.85E-01	369131.40	3758945.42	1.44E-01	369131.40	3758945.42	1.39E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.34E+00	369131.40	3758945.42	3.45E+00	369131.40	3758945.42	1.76E+00	369131.40	3758945.42	1.70E-01	369131.40	3758945.42	1.66E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.98E+00	369131.40	3758945.42	4.40E+00	369131.40	3758945.42	2.24E+00	369131.40	3758945.42	1.72E-01	369131.40	3758945.42	1.70E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.13E+00	369131.40	3758945.42	4.32E+00	369131.40	3758945.42	2.20E+00	369131.40	3758945.42	1.75E-01	369131.40	3758945.42	1.72E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.89E+00	369131.40	3758945.42	3.83E+00	369131.40	3758945.42	1.95E+00	369131.40	3758945.42	1.75E-01	369131.40	3758945.42	1.71E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.89E+00	369131.40	3758945.42	3.70E+00	369131.40	3758945.42	1.88E+00	369131.40	3758945.42	1.68E-01	369131.40	3758945.42	1.65E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.91E+01	369131.40	3758945.42	2.32E+00	369131.40	3758945.42	9.60E-01	369131.40	3758945.42	1.42E-01	369131.40	3758945.42	1.37E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.05E+01	369131.40	3758945.42	4.12E+00	369131.40	3758945.42	2.10E+00	369131.40	3758945.42	1.80E-01	369131.40	3758945.42	1.76E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.08E+01	369131.40	3758945.42	4.40E+00	369131.40	3758945.42	2.24E+00	369131.40	3758945.42	1.86E-01	369131.40	3758945.42	1.83E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.09E+01	369131.40	3758945.42	2.41E+00	369131.40	3758945.42	9.90E-01	369131.40	3758945.42	1.50E-01	369131.40	3758945.42	1.44E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.49E+01	369131.40	3758945.42	2.63E+00	369131.40	3758945.42	1.07E+00	369131.40	3758945.42	1.56E-01	369131.40	3758945.42	1.50E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.17E+01	369131.40	3758945.42	4.83E+00	369131.40	3758945.42	2.47E+00	369131.40	3758945.42	2.00E-01	369131.40	3758945.42	1.97E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.73E+01	369131.40	3758945.42	2.80E+00	369131.40	3758945.42	1.14E+00	369131.40	3758945.42	1.63E-01	369131.40	3758945.42	1.57E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.87E+01	369131.40	3758945.42	2.88E+00	369131.40	3758945.42	1.17E+00	369131.40	3758945.42	1.70E-01	369131.40	3758945.42	1.63E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.27E+01	369131.40	3758945.42	6.35E+00	369131.40	3758945.42	3.27E+00	369131.40	3758945.42	3.02E-01	369131.40	3758945.42	2.93E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.97E+01	369131.40	3758945.42	6.06E+00	369131.40	3758945.42	3.14E+00	369131.40	3758945.42	3.64E-01	369131.40	3758945.42	3.53E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.23E+02	369131.40	3758945.42	6.42E+00	369131.40	3758945.42	3.28E+00	369131.40	3758945.42	3.45E-01	369131.40	3758945.42	3.34E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.41E+02	369131.40	3758945.42	5.97E+00	369131.40	3758945.42	2.83E+00	369131.40	3758945.42	3.98E-01	369131.40	3758945.42	3.80E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.44E+02	369131.40	3758945.42	5.55E+00	369131.40	3758945.42	2.74E+00	369131.40	3758945.42	3.70E-01	369131.40	3758945.42	3.53E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.78E+02	369131.40	3758945.42	7.05E+00	369131.40	3758945.42	2.60E+00	369131.40	3758945.42	4.70E-01	369131.40	3758945.42	4.49E-01	369131.40	3758945.42	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 1 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	7.08E+00	369131.40	3758945.42	8.84E-01	369131.40	3758945.42	4.15E-01	369131.40	3758945.42	5.62E-02	369131.40	3758945.42	5.24E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.55E+00	369131.40	3758945.42	7.17E-01	369131.40	3758945.42	3.27E-01	369131.40	3758945.42	4.86E-02	369131.40	3758945.42	4.66E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.09E+00	369131.40	3758945.42	9.21E-01	369131.40	3758945.42	4.24E-01	369131.40	3758945.42	6.02E-02	369131.40	3758945.42	5.62E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.59E+00	369131.40	3758945.42	7.27E-01	369131.40	3758945.42	3.38E-01	369131.40	3758945.42	4.99E-02	369131.40	3758945.42	4.80E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.16E+00	369131.40	3758945.42	9.51E-01	369131.40	3758945.42	4.35E-01	369131.40	3758945.42	6.28E-02	369131.40	3758945.42	5.87E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.82E+00	369131.40	3758945.42	7.46E-01	369131.40	3758945.42	3.44E-01	369131.40	3758945.42	5.08E-02	369131.40	3758945.42	4.88E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.91E+00	369131.40	3758945.42	7.46E-01	369131.40	3758945.42	3.39E-01	369131.40	3758945.42	5.05E-02	369131.40	3758945.42	4.85E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.15E+00	369131.40	3758945.42	9.72E-01	369131.40	3758945.42	4.41E-01	369131.40	3758945.42	6.49E-02	369131.40	3758945.42	6.08E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.06E+00	369131.40	3758945.42	7.60E-01	369131.40	3758945.42	3.47E-01	369131.40	3758945.42	5.12E-02	369131.40	3758945.42	4.92E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.14E+00	369131.40	3758945.42	7.62E-01	369131.40	3758945.42	3.48E-01	369131.40	3758945.42	5.17E-02	369131.40	3758945.42	4.97E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.06E+00	369131.40	3758945.42	9.88E-01	369131.40	3758945.42	4.44E-01	369131.40	3758945.42	6.69E-02	369131.40	3758945.42	6.27E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.29E+00	369131.40	3758945.42	7.74E-01	369131.40	3758945.42	3.55E-01	369131.40	3758945.42	5.26E-02	369131.40	3758945.42	5.05E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.48E+00	369131.40	3758945.42	8.60E-01	369131.40	3758945.42	4.30E-01	369131.40	3758945.42	6.28E-02	369131.40	3758945.42	6.03E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.23E+00	369131.40	3758945.42	7.82E-01	369131.40	3758945.42	3.61E-01	369131.40	3758945.42	5.29E-02	369131.40	3758945.42	5.09E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.98E+00	369131.40	3758945.42	9.96E-01	369131.40	3758945.42	4.43E-01	369131.40	3758945.42	6.85E-02	369131.40	3758945.42	6.43E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.82E+00	369131.40	3758945.42	9.04E-01	369131.40	3758945.42	4.49E-01	369131.40	3758945.42	6.39E-02	369131.40	3758945.42	6.15E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.89E+00	369131.40	3758945.42	7.92E-01	369131.40	3758945.42	3.83E-01	369131.40	3758945.42	6.08E-02	369131.40	3758945.42	5.85E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.38E+00	369131.40	3758945.42	8.85E-01	369131.40	3758945.42	4.46E-01	369131.40	3758945.42	6.61E-02	369131.40	3758945.42	6.35E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.73E+00	369131.40	3758945.42	9.96E-01	369131.40	3758945.42	4.38E-01	369131.40	3758945.42	6.95E-02	369131.40	3758945.42	6.54E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.99E+00	369131.40	3758945.42	8.94E-01	369131.40	3758945.42	4.48E-01	369131.40	3758945.42	6.50E-02	369131.40	3758945.42	6.25E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.47E+00	369131.40	3758945.42	9.17E-01	369131.40	3758945.42	4.61E-01	369131.40	3758945.42	6.78E-02	369131.40	3758945.42	6.51E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.29E+00	369131.40	3758945.42	9.98E-01	369131.40	3758945.42	4.37E-01	369131.40	3758945.42	7.03E-02	369131.40	3758945.42	6.62E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.23E+00	369131.40	3758945.42	1.01E+00	369131.40	3758945.42	5.09E-01	369131.40	3758945.42	7.12E-02	369131.40	3758945.42	6.86E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.86E+00	369131.40	3758945.42	9.96E-01	369131.40	3758945.42	4.32E-01	369131.40	3758945.42	7.08E-02	369131.40	3758945.42	6.68E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.46E+00	369131.40	3758945.42	9.95E-01	369131.40	3758945.42	4.36E-01	369131.40	3758945.42	7.14E-02	369131.40	3758945.42	6.74E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.45E+00	369131.40	3758945.42	1.11E+00	369131.40	3758945.42	5.55E-01	369131.40	3758945.42	7.49E-02	369131.40	3758945.42	7.22E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.01E+01	369131.40	3758945.42	9.94E-01	369131.40	3758945.42	4.52E-01	369131.40	3758945.42	7.20E-02	369131.40	3758945.42	6.80E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.07E+01	369131.40	3758945.42	9.94E-01	369131.40	3758945.42	4.66E-01	369131.40	3758945.42	7.23E-02	369131.40	3758945.42	6.84E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.40E+00	369131.40	3758945.42	1.03E+00	369131.40	3758945.42	5.15E-01	369131.40	3758945.42	7.07E-02	369131.40	3758945.42	6.82E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.15E+01	369131.40	3758945.42	1.03E+00	369131.40	3758945.42	4.80E-01	369131.40	3758945.42	7.23E-02	369131.40	3758945.42	6.85E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.81E+00	369131.40	3758945.42	1.16E+00	369131.40	3758945.42	5.83E-01	369131.40	3758945.42	7.63E-02	369131.40	3758945.42	7.36E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.23E+01	369131.40	3758945.42	1.07E+00	369131.40	3758945.42	4.90E-01	369131.40	3758945.42	7.09E-02	369131.40	3758945.42	6.73E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.39E+00	369131.40	3758945.42	1.31E+00	369131.40	3758945.42	6.58E-01	369131.40	3758945.42	8.21E-02	369131.40	3758945.42	7.94E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.20E+00	369131.40	3758945.42	1.37E+00	369131.40	3758945.42	6.89E-01	369131.40	3758945.42	8.52E-02	369131.40	3758945.42	8.24E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.29E+01	369131.40	3758945.42	1.09E+00	369131.40	3758945.42	5.03E-01	369131.40	3758945.42	7.30E-02	369131.40	3758945.42	6.87E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.64E+00	369131.40	3758945.42	1.28E+00	369131.40	3758945.42	6.43E-01	369131.40	3758945.42	8.30E-02	369131.40	3758945.42	8.02E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.30E+01	369131.40	3758945.42	1.12E+00	369131.40	3758945.42	5.17E-01	369131.40	3758945.42	7.65E-02	369131.40	3758945.42	7.23E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.19E+00	369131.40	3758945.42	1.20E+00	369131.40	3758945.42	6.02E-01	369131.40	3758945.42	8.03E-02	369131.40	3758945.42	7.75E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.38E+00	369131.40	3758945.42	1.19E+00	369131.40	3758945.42	5.94E-01	369131.40	3758945.42	7.85E-02	369131.40	3758945.42	7.58E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.27E+01	369131.40	3758945.42	1.15E+00	369131.40	3758945.42	5.24E-01	369131.40	3758945.42	7.95E-02	369131.40	3758945.42	7.54E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.68E+00	369131.40	3758945.42	1.24E+00	369131.40	3758945.42	6.19E-01	369131.40	3758945.42	8.18E-02	369131.40	3758945.42	7.90E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.06E+01	369131.40	3758945.42	1.28E+00	369131.40	3758945.42	6.43E-01	369131.40	3758945.42	8.58E-02	369131.40	3758945.42	8.27E-02	369131.40	3758945.42	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 1 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	1.26E+01	369131.40	3758945.42	5.27E+00	369131.40	3758945.42	2.69E+00	369131.40	3758945.42	2.13E-01	369131.40	3758945.42	2.10E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.29E+01	369131.40	3758945.42	5.49E+00	369131.40	3758945.42	2.80E+00	369131.40	3758945.42	2.18E-01	369131.40	3758945.42	2.15E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.99E+01	369131.40	3758945.42	3.06E+00	369131.40	3758945.42	1.25E+00	369131.40	3758945.42	1.71E-01	369131.40	3758945.42	1.64E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.60E+01	369131.40	3758945.42	2.91E+00	369131.40	3758945.42	1.20E+00	369131.40	3758945.42	1.62E-01	369131.40	3758945.42	1.57E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.19E+01	369131.40	3758945.42	2.75E+00	369131.40	3758945.42	1.14E+00	369131.40	3758945.42	1.57E-01	369131.40	3758945.42	1.51E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.28E+01	369131.40	3758945.42	2.59E+00	369131.40	3758945.42	1.08E+00	369131.40	3758945.42	1.51E-01	369131.40	3758945.42	1.46E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.02E+01	369131.40	3758945.42	7.27E+00	369131.40	3758945.42	3.74E+00	369131.40	3758945.42	3.51E-01	369131.40	3758945.42	3.41E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.43E+01	369131.40	3758945.42	6.43E+00	369131.40	3758945.42	3.29E+00	369131.40	3758945.42	2.44E-01	369131.40	3758945.42	2.41E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.11E+02	369131.40	3758945.42	8.99E+00	369131.40	3758945.42	2.64E+00	369131.40	3758945.42	5.99E-01	369131.40	3758945.42	5.73E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.33E+01	369131.40	3758945.42	2.29E+00	369131.40	3758945.42	9.78E-01	369131.40	3758945.42	1.47E-01	369131.40	3758945.42	1.42E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.22E+01	369131.40	3758945.42	7.06E+00	369131.40	3758945.42	3.59E+00	369131.40	3758945.42	2.66E-01	369131.40	3758945.42	2.63E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.42E+01	369131.40	3758945.42	8.92E+00	369131.40	3758945.42	4.57E+00	369131.40	3758945.42	4.32E-01	369131.40	3758945.42	4.20E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.17E+01	369131.40	3758945.42	8.68E+00	369131.40	3758945.42	4.44E+00	369131.40	3758945.42	3.00E-01	369131.40	3758945.42	2.98E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.96E+01	369131.40	3758945.42	1.91E+00	369131.40	3758945.42	8.37E-01	369131.40	3758945.42	1.40E-01	369131.40	3758945.42	1.34E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.35E+02	369131.40	3758945.42	1.65E+01	369131.40	3758945.42	4.85E+00	369131.40	3758945.42	1.10E+00	369131.40	3758945.42	1.05E+00	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.18E+01	369131.40	3758945.42	7.83E+00	369131.40	3758945.42	4.01E+00	369131.40	3758945.42	2.69E-01	369131.40

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 1 Hour

Emissions Source: Architectural Coating			Emissions Source: Diesel Exhaust			Emissions Source: Diesel Exhaust			Emissions Source: Gasoline Exhaust			Emissions Source: Gasoline Exhaust			Emissions Source: Paving Evaporation		
Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	9.00E+00	369131.40	3758945.42	4.23E+00	369131.40	3758945.42	2.10E+00	369131.40	3758945.42	4.36E-01	369131.40	3758945.42	4.15E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.72E+00	369131.40	3758945.42	1.27E+00	369131.40	3758945.42	6.31E-01	369131.40	3758945.42	1.09E-01	369131.40	3758945.42	1.03E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.73E+00	369131.40	3758945.42	1.30E+00	369131.40	3758945.42	6.51E-01	369131.40	3758945.42	1.11E-01	369131.40	3758945.42	1.05E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.74E+00	369131.40	3758945.42	1.03E+00	369131.40	3758945.42	4.69E-01	369131.40	3758945.42	5.49E-02	369131.40	3758945.42	5.33E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.11E+01	369131.40	3758945.42	1.08E+00	369131.40	3758945.42	5.05E-01	369131.40	3758945.42	5.83E-02	369131.40	3758945.42	5.67E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.27E+01	369131.40	3758945.42	1.13E+00	369131.40	3758945.42	5.38E-01	369131.40	3758945.42	6.22E-02	369131.40	3758945.42	6.04E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.28E+01	369131.40	3758945.42	1.16E+00	369131.40	3758945.42	5.66E-01	369131.40	3758945.42	6.68E-02	369131.40	3758945.42	6.48E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.11E+01	369131.40	3758945.42	1.19E+00	369131.40	3758945.42	5.84E-01	369131.40	3758945.42	7.20E-02	369131.40	3758945.42	6.98E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.32E+01	369131.40	3758945.42	1.21E+00	369131.40	3758945.42	4.37E-01	369131.40	3758945.42	1.20E-01	369131.40	3758945.42	1.13E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.38E+00	369131.40	3758945.42	1.13E+00	369131.40	3758945.42	5.57E-01	369131.40	3758945.42	7.38E-02	369131.40	3758945.42	7.13E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.05E+00	369131.40	3758945.42	3.91E+00	369131.40	3758945.42	1.94E+00	369131.40	3758945.42	3.90E-01	369131.40	3758945.42	3.71E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.41E+00	369131.40	3758945.42	1.21E+00	369131.40	3758945.42	6.02E-01	369131.40	3758945.42	9.98E-02	369131.40	3758945.42	9.42E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.08E+01	369131.40	3758945.42	1.12E+00	369131.40	3758945.42	4.11E-01	369131.40	3758945.42	1.06E-01	369131.40	3758945.42	9.95E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.75E+00	369131.40	3758945.42	1.05E+00	369131.40	3758945.42	5.22E-01	369131.40	3758945.42	7.51E-02	369131.40	3758945.42	7.24E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.79E+00	369131.40	3758945.42	1.02E+00	369131.40	3758945.42	5.09E-01	369131.40	3758945.42	7.85E-02	369131.40	3758945.42	7.55E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.99E+00	369131.40	3758945.42	9.84E-01	369131.40	3758945.42	4.90E-01	369131.40	3758945.42	8.18E-02	369131.40	3758945.42	7.85E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.33E+00	369131.40	3758945.42	3.63E+00	369131.40	3758945.42	1.80E+00	369131.40	3758945.42	3.52E-01	369131.40	3758945.42	3.36E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.02E+00	369131.40	3758945.42	1.13E+00	369131.40	3758945.42	5.61E-01	369131.40	3758945.42	8.71E-02	369131.40	3758945.42	8.20E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.11E+01	369131.40	3758945.42	1.09E+00	369131.40	3758945.42	3.87E-01	369131.40	3758945.42	8.58E-02	369131.40	3758945.42	8.08E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.85E+00	369131.40	3758945.42	9.46E-01	369131.40	3758945.42	4.70E-01	369131.40	3758945.42	7.59E-02	369131.40	3758945.42	7.29E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.47E+00	369131.40	3758945.42	9.05E-01	369131.40	3758945.42	4.50E-01	369131.40	3758945.42	7.87E-02	369131.40	3758945.42	7.54E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.77E+00	369131.40	3758945.42	8.54E-01	369131.40	3758945.42	4.24E-01	369131.40	3758945.42	8.12E-02	369131.40	3758945.42	7.76E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.14E+00	369131.40	3758945.42	3.40E+00	369131.40	3758945.42	1.67E+00	369131.40	3758945.42	3.22E-01	369131.40	3758945.42	3.06E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.57E+00	369131.40	3758945.42	1.03E+00	369131.40	3758945.42	5.12E-01	369131.40	3758945.42	7.82E-02	369131.40	3758945.42	7.52E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.33E+01	369131.40	3758945.42	1.11E+00	369131.40	3758945.42	3.65E-01	369131.40	3758945.42	7.07E-02	369131.40	3758945.42	6.80E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.93E+00	369131.40	3758945.42	8.40E-01	369131.40	3758945.42	4.17E-01	369131.40	3758945.42	7.54E-02	369131.40	3758945.42	7.22E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.66E+01	369131.40	3758945.42	1.17E+00	369131.40	3758945.42	3.87E-01	369131.40	3758945.42	7.20E-02	369131.40	3758945.42	6.73E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.88E+00	369131.40	3758945.42	3.18E+00	369131.40	3758945.42	1.56E+00	369131.40	3758945.42	2.94E-01	369131.40	3758945.42	2.81E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.11E+00	369131.40	3758945.42	9.25E-01	369131.40	3758945.42	4.61E-01	369131.40	3758945.42	7.83E-02	369131.40	3758945.42	7.50E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.02E+00	369131.40	3758945.42	7.61E-01	369131.40	3758945.42	3.64E-01	369131.40	3758945.42	7.39E-02	369131.40	3758945.42	7.06E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.48E+01	369131.40	3758945.42	1.11E+00	369131.40	3758945.42	3.70E-01	369131.40	3758945.42	6.85E-02	369131.40	3758945.42	6.40E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.79E+00	369131.40	3758945.42	8.54E-01	369131.40	3758945.42	4.26E-01	369131.40	3758945.42	7.76E-02	369131.40	3758945.42	7.43E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.50E+00	369131.40	3758945.42	2.99E+00	369131.40	3758945.42	1.46E+00	369131.40	3758945.42	2.72E-01	369131.40	3758945.42	2.59E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.56E+00	369131.40	3758945.42	3.00E+00	369131.40	3758945.42	1.47E+00	369131.40	3758945.42	2.76E-01	369131.40	3758945.42	2.63E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.93E+00	369131.40	3758945.42	7.69E-01	369131.40	3758945.42	3.46E-01	369131.40	3758945.42	7.11E-02	369131.40	3758945.42	6.77E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.07E+00	369131.40	3758945.42	8.19E-01	369131.40	3758945.42	3.80E-01	369131.40	3758945.42	7.11E-02	369131.40	3758945.42	6.75E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.23E+00	369131.40	3758945.42	8.64E-01	369131.40	3758945.42	4.10E-01	369131.40	3758945.42	7.00E-02	369131.40	3758945.42	6.64E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.65E+00	369131.40	3758945.42	8.98E-01	369131.40	3758945.42	4.35E-01	369131.40	3758945.42	6.77E-02	369131.40	3758945.42	6.41E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.03E+00	369131.40	3758945.42	9.17E-01	369131.40	3758945.42	4.50E-01	369131.40	3758945.42	6.40E-02	369131.40	3758945.42	6.04E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.31E+01	369131.40	3758945.42	1.06E+00	369131.40	3758945.42	3.56E-01	369131.40	3758945.42	6.55E-02	369131.40	3758945.42	6.12E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.77E+01	369131.40	3758945.42	1.22E+00	369131.40	3758945.42	4.20E-01	369131.40	3758945.42	7.57E-02	369131.40	3758945.42	7.10E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.99E+00	369131.40	3758945.42	9.14E-01	369131.40	3758945.42	4.52E-01	369131.40	3758945.42	6.54E-02	369131.40	3758945.42	6.30E-02	369131.40	3758945.42	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 1 Hour

Emissions Source: Architectural Coating			Emissions Source: Diesel Exhaust			Emissions Source: Diesel Exhaust			Emissions Source: Gasoline Exhaust			Emissions Source: Diesel Exhaust			Emissions Source: Gasoline Exhaust			Emissions Source: Gasoline Exhaust			Emissions Source: Paving Evaporation		
Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation			With Mitigation			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	8.32E+00	369131.40	3758945.42	2.28E+00	369131.40	3758945.42	1.08E+00	369131.40	3758945.42	1.81E-01	369131.40	3758945.42	1.70E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.62E+01	369131.40	3758945.42	3.00E+01	369131.40	3758945.42	1.46E+01	369131.40	3758945.42	3.47E+00	369131.40	3758945.42	3.35E+00	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.51E+02	369131.40	3758945.42	7.24E+00	369131.40	3758945.42	3.40E+00	369131.40	3758945.42	6.60E-01	369131.40	3758945.42	6.39E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.21E+01	369131.40	3758945.42	1.17E+01	369131.40	3758945.42	5.93E+00	369131.40	3758945.42	1.18E+00	369131.40	3758945.42	1.14E+00	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.39E+00	369131.40	3758945.42	6.31E-01	369131.40	3758945.42	2.82E-01	369131.40	3758945.42	7.17E-02	369131.40	3758945.42	6.81E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.19E+02	369131.40	3758945.42	7.99E+00	369131.40	3758945.42	2.43E+00	369131.40	3758945.42	5.18E-01	369131.40	3758945.42	4.91E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.01E+01	369131.40	3758945.42	2.45E+00	369131.40	3758945.42	1.15E+00	369131.40	3758945.42	1.57E-01	369131.40	3758945.42	1.53E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.77E+00	369131.40	3758945.42	6.24E-01	369131.40	3758945.42	2.79E-01	369131.40	3758945.42	6.40E-02	369131.40	3758945.42	6.07E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.88E+01	369131.40	3758945.42	1.57E+01	369131.40	3758945.42	7.66E+00	369131.40	3758945.42	1.34E+00	369131.40	3758945.42	1.30E+00	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.49E+00	369131.40	3758945.42	2.82E+00	369131.40	3758945.42	1.32E+00	369131.40	3758945.42	1.78E-01	369131.40	3758945.42	1.72E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.64E+02	369131.40	3758945.42	6.05E+00	369131.40	3758945.42	1.85E+00	369131.40	3758945.42	3.90E-01	369131.40	3758945.42	3.69E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.60E+01	369131.40	3758945.42	1.06E+01	369131.40	3758945.42	5.28E+00	369131.40	3758945.42	9.07E-01	369131.40	3758945.42	8.79E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.11E+00	369131.40	3758945.42	6.29E-01	369131.40	3758945.42	2.83E-01	369131.40	3758945.42	5.60E-02	369131.40	3758945.42	5.29E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.02E+01	369131.40	3758945.42	2.85E+00	369131.40	3758945.42	1.32E+00	369131.40	3758945.42	2.20E-01	369131.40	3758945.42	2.14E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.76E+00	369131.40	3758945.42	2.59E+00	369131.40	3758945.42	1.19E+00	369131.40	3758945.42	1.95E-01	369131.40	3758945.42	1.90E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.08E+01	369131.40	3758945.42	1.11E+01	369131.40	3758945.42	5.08E+00	369131.40	3758945.42	1.17E+00	369131.40	3758945.42	1.13E+00	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.95E+01	369131.40	3758945.42	6.60E+00	369131.40	3758945.42	3.12E+00	369131.40	3758945.42	7.30E-01	369131.40	3758945.42	6.85E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.31E+01	369131.40	3758945.42	7.25E+00	369131.40	3758945.42	3.67E+00	369131.40	3758945.42	7.05E-01	369131.40	3758945.42	6.61E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.61E+01	369131.40	3758945.42	1.42E+01	369131.40	3758945.42	7.19E+00	369131.40	3758945.42	1.65E+00	369131.40	3758945.42	1.55E+00	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.16E+01	369131.40	3758945.42	1.34E+01	369131.40	3758945.42	6.89E+00	369131.40	3758945.42	1.96E+00	369131.40	3758945.42	1.84E+00	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.66E+00	369131.40	3758945.42	6.15E-01	369131.40	3758945.42	2.82E-01	369131.40	3758945.42	4.86E-02	369131.40	3758945.42	4.60E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.05E+01	369131.40	3758945.42	1.07E+01	369131.40	3758945.42	5.59E+00	369131.40	3758945.42	1.37E+00	369131.40	3758945.42	1.29E+00	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.02E+01	369131.40	3758945.42	7.37E+00	369131.40	3758945.42	3.86E+00	369131.40	3758945.42	5.82E-01	369131.40	3758945.42	5.46E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.01E+01	369131.40	3758945.42	4.55E+00	369131.40	3758945.42	2.39E+00	369131.40	3758945.42	2.80E-01	369131.40	3758945.42	2.62E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.52E+00	369131.40	3758945.42	2.65E+00	369131.40	3758945.42	1.39E+00	369131.40	3758945.42	2.01E-01	369131.40	3758945.42	1.94E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.25E+02	369131.40	3758945.42	5.06E+00	369131.40	3758945.42	2.54E+00	369131.40	3758945.42	3.05E-01	369131.40	3758945.42	2.88E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.55E+01	369131.40	3758945.42	7.98E+00	369131.40	3758945.42	3.65E+00	369131.40	3758945.42	9.96E-01	369131.40	3758945.42	9.33E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.98E+01	369131.40	3758945.42	6.67E+00	369131.40	3758945.42	3.08E+00	369131.40	3758945.42	1.33E+00	369131.40	3758945.42	1.25E+00	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.72E+01	369131.40	3758945.42	1.17E+01	369131.40	3758945.42	5.35E+00	369131.40	3758945.42	4.93E+00	369131.40	3758945.42	4.63E+00	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.31E+00	369131.40	3758945.42	5.62E-01	369131.40	3758945.42	2.63E-01	369131.40	3758945.42	4.73E-02	369131.40	3758945.42	4.57E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.71E+01	369131.40	3758945.42	4.88E+00	369131.40	3758945.42	2.44E+00	369131.40	3758945.42	2.45E-01	369131.40	3758945.42	2.32E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.65E+01	369131.40	3758945.42	5.75E+00	369131.40	3758945.42	2.67E+00	369131.40	3758945.42	1.00E+00	369131.40	3758945.42	9.41E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.00E+02	369131.40	3758945.42	2.06E+01	369131.40	3758945.42	9.50E+00	369131.40	3758945.42	5.77E+00	369131.40	3758945.42	5.43E+00	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.92E+01	369131.40	3758945.42	5.99E+00	369131.40	3758945.42	2.83E+00	369131.40	3758945.42	6.62E-01	369131.40	3758945.42	6.20E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.02E+01	369131.40	3758945.42	5.70E-01	369131.40	3758945.42	2.36E-01	369131.40	3758945.42	4.53E-02	369131.40	3758945.42	4.36E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.68E+01	369131.40	3758945.42	3.65E+00	369131.40	3758945.42	1.83E+00	369131.40	3758945.42	2.02E-01	369131.40	3758945.42	1.90E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.29E+01	369131.40	3758945.42	2.84E+00	369131.40	3758945.42	1.37E+00	369131.40	3758945.42	2.83E-01	369131.40	3758945.42	2.65E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.80E+01	369131.40	3758945.42	4.53E+00	369131.40	3758945.42	2.12E+00	369131.40	3758945.42	5.31E-01	369131.40	3758945.42	4.98E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.18E+01	369131.40	3758945.42	5.47E+00	369131.40	3758945.42	2.59E+00	369131.40	3758945.42	6.74E-01	369131.40	3758945.42	6.32E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.41E+01	369131.40	3758945.42	8.80E+00	369131.40	3758945.42	4.33E+00	369131.40	3758945.42	1.56E+00	369131.40	3758945.42	1.47E+00	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.07E+01	369131.40	3758945.42	6.21E+00	369131.40	3758945.42	2.88E+00	369131.40	3758945.42	1.95E+00	369131.40	3758945.42	1.95E+00	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.87E+01	369131.40	3758945.42	1.82E+01	369131.40	3758945.42	8.85E+00	369131.40	3758945.42	4.36E+00	369131.40	3758945.42	4.10E+00	369131.40	3758945.42	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 1 Hour

Emissions Source: Architectural Coating			Emissions Source: Diesel Exhaust			Emissions Source: Diesel Exhaust			Emissions Source: Gasoline Exhaust			Emissions Source: Gasoline Exhaust			Emissions Source: Gasoline Exhaust			Emissions Source: Gasoline Exhaust			Emissions Source: Paving Evaporation		
Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation			With Mitigation			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	2.62E+01	369131.40	3758945.42	1.37E+00	369131.40	3758945.42	4.99E-01	369131.40	3758945.42	8.64E-02	369131.40	3758945.42	8.13E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.73E+00	369131.40	3758945.42	8.84E-01	369131.40	3758945.42	4.40E-01	369131.40	3758945.42	7.02E-02	369131.40	3758945.42	6.75E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.96E+01	369131.40	3758945.42	1.56E+00	369131.40	3758945.42	6.12E-01	369131.40	3758945.42	1.01E-01	369131.40	3758945.42	9.52E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.18E+01	369131.40	3758945.42	1.82E+00	369131.40	3758945.42	7.70E-01	369131.40	3758945.42	1.22E-01	369131.40	3758945.42	1.16E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.88E+00	369131.40	3758945.42	8.30E-01	369131.40	3758945.42	4.14E-01	369131.40	3758945.42	7.43E-02	369131.40	3758945.42	7.11E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.87E+00	369131.40	3758945.42	2.17E+00	369131.40	3758945.42	9.77E-01	369131.40	3758945.42	1.57E-01	369131.40	3758945.42	1.50E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.31E+00	369131.40	3758945.42	2.53E+00	369131.40	3758945.42	1.19E+00	369131.40	3758945.42	2.00E-01	369131.40	3758945.42	1.91E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.46E+00	369131.40	3758945.42	7.83E-01	369131.40	3758945.42	3.90E-01	369131.40	3758945.42	7.63E-02	369131.40	3758945.42	7.28E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.84E+00	369131.40	3758945.42	2.81E+00	369131.40	3758945.42	1.36E+00	369131.40	3758945.42	2.43E-01	369131.40	3758945.42	2.31E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.84E+00	369131.40	3758945.42	2.77E+00	369131.40	3758945.42	1.34E+00	369131.40	3758945.42	2.39E-01	369131.40	3758945.42	2.27E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.26E+00	369131.40	3758945.42	2.85E+00	369131.40	3758945.42	1.39E+00	369131.40	3758945.42	2.58E-01	369131.40	3758945.42	2.46E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.53E+00	369131.40	3758945.42	5.58E-01	369131.40	3758945.42	2.57E-01	369131.40	3758945.42	3.73E-02	369131.40	3758945.42	3.59E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.32E+00	369131.40	3758945.42	1.74E-01	369131.40	3758945.42	7.62E-02	369131.40	3758945.42	1.48E-02	369131.40	3758945.42	1.42E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.72E+00	369131.40	3758945.42	5.96E+00	369131.40	3758945.42	3.05E+00	369131.40	3758945.42	2.24E-01	369131.40	3758945.42	2.21E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.77E+00	369131.40	3758945

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 1 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	2.35E+00	369131.40	3758945.42	4.76E-01	369131.40	3758945.42	2.14E-01	369131.40	3758945.42	3.83E-02	369131.40	3758945.42	3.69E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.77E+00	369131.40	3758945.42	4.22E-01	369131.40	3758945.42	1.85E-01	369131.40	3758945.42	3.54E-02	369131.40	3758945.42	3.41E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.75E+00	369131.40	3758945.42	2.42E-01	369131.40	3758945.42	1.07E-01	369131.40	3758945.42	1.75E-02	369131.40	3758945.42	1.69E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.58E+00	369131.40	3758945.42	4.34E-01	369131.40	3758945.42	1.92E-01	369131.40	3758945.42	2.81E-02	369131.40	3758945.42	2.70E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.33E+00	369131.40	3758945.42	3.06E-01	369131.40	3758945.42	1.50E-01	369131.40	3758945.42	3.20E-02	369131.40	3758945.42	3.05E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.04E+00	369131.40	3758945.42	2.69E-01	369131.40	3758945.42	1.37E-01	369131.40	3758945.42	2.86E-02	369131.40	3758945.42	2.74E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.23E+01	369131.40	3758945.42	1.04E+00	369131.40	3758945.42	4.35E-01	369131.40	3758945.42	7.20E-02	369131.40	3758945.42	6.81E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.45E+01	369131.40	3758945.42	1.27E+00	369131.40	3758945.42	5.21E-01	369131.40	3758945.42	1.27E-01	369131.40	3758945.42	1.21E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.26E+00	369131.40	3758945.42	4.91E-01	369131.40	3758945.42	2.19E-01	369131.40	3758945.42	4.61E-02	369131.40	3758945.42	4.43E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.72E+00	369131.40	3758945.42	3.65E-01	369131.40	3758945.42	1.61E-01	369131.40	3758945.42	3.52E-02	369131.40	3758945.42	3.38E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.40E+00	369131.40	3758945.42	1.94E-01	369131.40	3758945.42	8.42E-02	369131.40	3758945.42	1.84E-02	369131.40	3758945.42	1.77E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.35E+00	369131.40	3758945.42	2.00E-01	369131.40	3758945.42	8.84E-02	369131.40	3758945.42	1.65E-02	369131.40	3758945.42	1.58E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.52E+00	369131.40	3758945.42	2.31E-01	369131.40	3758945.42	1.02E-01	369131.40	3758945.42	1.96E-02	369131.40	3758945.42	1.89E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.82E+00	369131.40	3758945.42	3.06E-01	369131.40	3758945.42	1.33E-01	369131.40	3758945.42	1.99E-02	369131.40	3758945.42	1.90E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.45E+00	369131.40	3758945.42	2.25E-01	369131.40	3758945.42	1.05E-01	369131.40	3758945.42	2.09E-02	369131.40	3758945.42	2.01E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.68E+00	369131.40	3758945.42	2.02E-01	369131.40	3758945.42	9.48E-02	369131.40	3758945.42	1.96E-02	369131.40	3758945.42	1.88E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.63E+00	369131.40	3758945.42	1.32E+00	369131.40	3758945.42	5.95E-01	369131.40	3758945.42	1.11E-01	369131.40	3758945.42	1.06E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.55E+00	369131.40	3758945.42	3.53E-01	369131.40	3758945.42	1.58E-01	369131.40	3758945.42	3.27E-02	369131.40	3758945.42	3.13E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.20E+00	369131.40	3758945.42	2.99E-01	369131.40	3758945.42	1.31E-01	369131.40	3758945.42	2.83E-02	369131.40	3758945.42	2.72E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.37E+00	369131.40	3758945.42	1.95E-01	369131.40	3758945.42	8.68E-02	369131.40	3758945.42	1.74E-02	369131.40	3758945.42	1.68E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.06E-01	369131.40	3758945.42	1.03E-01	369131.40	3758945.42	4.50E-02	369131.40	3758945.42	9.85E-03	369131.40	3758945.42	9.45E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.23E+00	369131.40	3758945.42	3.14E-01	369131.40	3758945.42	1.41E-01	369131.40	3758945.42	3.14E-02	369131.40	3758945.42	3.01E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.25E+00	369131.40	3758945.42	1.81E-01	369131.40	3758945.42	8.20E-02	369131.40	3758945.42	1.60E-02	369131.40	3758945.42	1.53E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.41E+00	369131.40	3758945.42	1.59E-01	369131.40	3758945.42	7.30E-02	369131.40	3758945.42	1.49E-02	369131.40	3758945.42	1.43E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.20E+00	369131.40	3758945.42	8.44E-01	369131.40	3758945.42	4.23E-01	369131.40	3758945.42	7.13E-02	369131.40	3758945.42	6.80E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.87E+00	369131.40	3758945.42	2.81E-01	369131.40	3758945.42	1.37E-01	369131.40	3758945.42	2.47E-02	369131.40	3758945.42	2.37E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.95E+00	369131.40	3758945.42	3.14E-01	369131.40	3758945.42	1.28E-01	369131.40	3758945.42	2.88E-02	369131.40	3758945.42	2.74E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.22E+00	369131.40	3758945.42	9.36E-01	369131.40	3758945.42	4.42E-01	369131.40	3758945.42	6.37E-02	369131.40	3758945.42	6.05E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.90E+00	369131.40	3758945.42	2.60E-01	369131.40	3758945.42	1.17E-01	369131.40	3758945.42	2.45E-02	369131.40	3758945.42	2.35E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.25E-01	369131.40	3758945.42	1.09E-01	369131.40	3758945.42	4.80E-02	369131.40	3758945.42	9.56E-03	369131.40	3758945.42	9.19E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.00E+00	369131.40	3758945.42	1.25E-01	369131.40	3758945.42	5.99E-02	369131.40	3758945.42	1.20E-02	369131.40	3758945.42	1.15E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.09E+00	369131.40	3758945.42	1.42E-01	369131.40	3758945.42	6.48E-02	369131.40	3758945.42	1.31E-02	369131.40	3758945.42	1.26E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.04E+00	369131.40	3758945.42	1.56E-01	369131.40	3758945.42	7.32E-02	369131.40	3758945.42	1.53E-02	369131.40	3758945.42	1.46E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.07E+00	369131.40	3758945.42	1.90E-01	369131.40	3758945.42	8.82E-02	369131.40	3758945.42	1.68E-02	369131.40	3758945.42	1.62E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.72E+00	369131.40	3758945.42	3.04E-01	369131.40	3758945.42	1.31E-01	369131.40	3758945.42	2.59E-02	369131.40	3758945.42	2.49E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.59E+00	369131.40	3758945.42	2.91E-01	369131.40	3758945.42	1.32E-01	369131.40	3758945.42	2.63E-02	369131.40	3758945.42	2.52E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.42E+00	369131.40	3758945.42	1.88E-01	369131.40	3758945.42	8.20E-02	369131.40	3758945.42	1.84E-02	369131.40	3758945.42	1.77E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.46E+00	369131.40	3758945.42	5.54E-01	369131.40	3758945.42	2.33E-01	369131.40	3758945.42	4.82E-02	369131.40	3758945.42	4.59E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.29E+00	369131.40	3758945.42	5.17E-01	369131.40	3758945.42	2.44E-01	369131.40	3758945.42	3.35E-02	369131.40	3758945.42	3.17E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.01E+00	369131.40	3758945.42	1.58E-01	369131.40	3758945.42	7.01E-02	369131.40	3758945.42	1.42E-02	369131.40	3758945.42	1.36E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.07E-01	369131.40	3758945.42	1.28E-01	369131.40	3758945.42	5.71E-02	369131.40	3758945.42	1.18E-02	369131.40	3758945.42	1.13E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.43E-01	369131.40	3758945.42	1.42E-01	369131.40	3758945.42	6.31E-02	369131.40	3758945.42	1.31E-02	369131.40	3758945.42	1.26E-02	369131.40	3758945.42	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 1 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	5.71E+00	369131.40	3758945.42	7.13E-01	369131.40	3758945.42	3.35E-01	369131.40	3758945.42	5.29E-02	369131.40	3758945.42	5.08E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.25E+00	369131.40	3758945.42	7.16E-01	369131.40	3758945.42	3.39E-01	369131.40	3758945.42	5.01E-02	369131.40	3758945.42	4.82E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.36E+00	369131.40	3758945.42	9.53E-01	369131.40	3758945.42	4.79E-01	369131.40	3758945.42	6.90E-02	369131.40	3758945.42	6.64E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.42E+00	369131.40	3758945.42	3.36E-01	369131.40	3758945.42	1.58E-01	369131.40	3758945.42	2.62E-02	369131.40	3758945.42	2.52E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.26E+00	369131.40	3758945.42	1.58E-01	369131.40	3758945.42	7.12E-02	369131.40	3758945.42	1.31E-02	369131.40	3758945.42	1.26E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.77E-01	369131.40	3758945.42	1.13E-01	369131.40	3758945.42	5.13E-02	369131.40	3758945.42	1.01E-02	369131.40	3758945.42	9.72E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.82E+00	369131.40	3758945.42	1.10E+00	369131.40	3758945.42	5.54E-01	369131.40	3758945.42	7.55E-02	369131.40	3758945.42	7.27E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.77E+00	369131.40	3758945.42	1.07E+00	369131.40	3758945.42	5.35E-01	369131.40	3758945.42	7.29E-02	369131.40	3758945.42	7.03E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.80E+00	369131.40	3758945.42	1.33E+00	369131.40	3758945.42	6.68E-01	369131.40	3758945.42	8.56E-02	369131.40	3758945.42	8.27E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.29E+00	369131.40	3758945.42	1.23E+00	369131.40	3758945.42	6.16E-01	369131.40	3758945.42	8.26E-02	369131.40	3758945.42	7.96E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.49E+01	369131.40	3758945.42	1.24E+00	369131.40	3758945.42	6.29E-01	369131.40	3758945.42	9.21E-02	369131.40	3758945.42	8.84E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.32E+00	369131.40	3758945.42	7.17E-01	369131.40	3758945.42	3.11E-01	369131.40	3758945.42	5.41E-02	369131.40	3758945.42	5.17E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.52E+00	369131.40	3758945.42	1.21E+00	369131.40	3758945.42	5.95E-01	369131.40	3758945.42	5.46E-02	369131.40	3758945.42	5.36E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.52E+00	369131.40	3758945.42	2.25E-01	369131.40	3758945.42	1.01E-01	369131.40	3758945.42	1.75E-02	369131.40	3758945.42	1.68E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.25E+00	369131.40	3758945.42	1.75E-01	369131.40	3758945.42	7.96E-02	369131.40	3758945.42	1.50E-02	369131.40	3758945.42	1.44E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.74E-01	369131.40	3758945.42	1.41E-01	369131.40	3758945.42	6.26E-02	369131.40	3758945.42	1.14E-02	369131.40	3758945.42	1.10E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.46E-01	369131.40	3758945.42	1.16E-01	369131.40	3758945.42	5.05E-02	369131.40	3758945.42	1.02E-02	369131.40	3758945.42	9.78E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.02E+01	369131.40	3758945.42	9.22E-01	369131.40	3758945.42	4.53E-01	369131.40	3758945.42	7.68E-02	369131.40	3758945.42	7.32E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.96E+00	369131.40	3758945.42	1.03E+00	369131.40	3758945.42	5.14E-01	369131.40	3758945.42	8.33E-02	369131.40	3758945.42	7.94E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.57E+00	369131.40	3758945.42	1.21E+00	369131.40	3758945.42	6.15E-01	369131.40	3758945.42	9.96E-02	369131.40	3758945.42	9.52E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.18E+01	369131.40	3758945.42	1.48E+00	369131.40	3758945.42	7.51E-01	369131.40	3758945.42	1.08E-01	369131.40	3758945.42	1.03E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.28E+01	369131.40	3758945.42	1.36E+00	369131.40	3758945.42	6.86E-01	369131.40	3758945.42	8.46E-02	369131.40	3758945.42	8.18E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.30E+01	369131.40	3758945.42	1.29E+00	369131.40	3758945.42	6.54E-01	369131.40	3758945.42	8.98E-02	369131.40	3758945.42	8.65E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.70E+00	369131.40	3758945.42	1.13E+00	369131.40	3758945.42	5.73E-01	369131.40	3758945.42	9.27E-02	369131.40	3758945.42	8.88E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.55E+01	369131.40	3758945.42	1.44E+00	369131.40	3758945.42	7.25E-01	369131.40	3758945.42	8.12E-02	369131.40	3758945.42	7.88E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.05E+01	369131.40	3758945.42	9.75E-01	369131.40	3758945.42	4.12E-01	369131.40	3758945.42	7.00E-02	369131.40	3758945.42	6.72E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.06E+01	369131.40	3758945.42	1.31E+00	369131.40	3758945.42	6.59E-01	369131.40	3758945.42	9.80E-02	369131.40	3758945.42	9.42E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.64E+00	369131.40	3758945.42	8.31E-01	369131.40	3758945.42	4.16E-01	369131.40	3758945.42	8.91E-02	369131.40	3758945.42	8.39E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.79E+00	369131.40	3758945.42	2.33E-01	369131.40	3758945.42	1.06E-01	369131.40	3758945.42	1.88E-02	369131.40	3758945.42	1.82E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.29E+00	369131.40	3758945.42	2.02E-01	369131.40	3758945.42	9.06E-02	369131.40	3758945.42	1.63E-02	369131.40	3758945.42	1.57E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.42E-01	369131.40	3758945.42	1.25E-01	369131.40	3758945.42	5.53E-02	369131.40	3758945.42	1.05E-02	369131.40	3758945.42	1.01E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.42E+01	369131.40	3758945.42	1.97E+00	369131.40	3758945.42	1.00E+00	369131.40	3758945.42	1.08E-01	369131.40	3758945.42	1.04E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.23E+00	369131.40	3758945.42	1.88E+00	369131.40	3758945.42	9.53E-01	369131.40	3758945.42	1.17E-01	369131.40	3758945.42	1.13E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.52E+00	369131.40	3758945.42	2.57E+00	369131.40	3758945.42	1.29E+00	369131.40	3758945.42	1.15E-01	369131.40	3758945.42	1.10E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.31E+00	369131.40	3758945.42	3.43E+00	369131.40	3758945.42	1.74E+00	369131.40	3758945.42	1.56E-01	369131.40	3758945.42	1.53E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.53E+00	369131.40	3758945.42	3.34E+00	369131.40	3758945.42	1.70E+00	369131.40	3758945.42	1.63E-01	369131.40	3758945.42	1.59E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.57E+00	369131.40	3758945.42	8.71E-01	369131.40	3758945.42	4.22E-01	369131.40	3758945.42	5.42E-02	369131.40	3758945.42	5.29E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.56E+00	369131.40	3758945.42	4.99E-01	369131.40	3758945.42	2.33E-01	369131.40	3758945.42	3.48E-02	369131.40	3758945.42	3.35E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.38E+00	369131.40	3758945.42	2.06E-01	369131.40	3758945.42	9.12E-02	369131.40	3758945.42	1.59E-02	369131.40	3758945.42	1.53E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.12E+00	369131.40	3758945.42	1.70E-01	369131.40	3758945.42	7.57E-02	369131.40	3758945.42	1.40E-02	369131.40	3758945.42	1.35E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.11E-01	369131.40	3758945.42	1.40E-01	369131.40	3758945.42	6.25E-02	369131.40	3758945.42	1.21E-02	369131.40	3758945.42	1.16E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.03E+01	369131.40	3758945.42	3.40E+00	369131.40	3758945.42	1.73E+00	369131.40	3758945.42	2.11E-01	369131.40	3758945.42	1.99E-01	369131.40	3758945.42	0.00E+00

Construction_HHRA_Inputs_ROG_Acute April 2018 1-Hr

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 1 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	8.12E-01	369131.40	3758945.42	1.12E-01	369131.40	3758945.42	5.06E-02	369131.40	3758945.42	1.02E-02	369131.40	3758945.42	9.81E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.35E+00	369131.40	3758945.42	1.77E-01	369131.40	3758945.42	8.31E-02	369131.40	3758945.42	1.57E-02	369131.40	3758945.42	1.51E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.89E+00	369131.40	3758945.42	1.66E-01	369131.40	3758945.42	7.88E-02	369131.40	3758945.42	1.51E-02	369131.40	3758945.42	1.46E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.58E+00	369131.40	3758945.42	2.30E-01	369131.40	3758945.42	1.09E-01	369131.40	3758945.42	2.17E-02	369131.40	3758945.42	2.09E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.54E+00	369131.40	3758945.42	8.35E-01	369131.40	3758945.42	3.96E-01	369131.40	3758945.42	6.47E-02	369131.40	3758945.42	6.15E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.60E+00	369131.40	3758945.42	2.02E-01	369131.40	3758945.42	9.41E-02	369131.40	3758945.42	1.94E-02	369131.40	3758945.42	1.86E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.01E+00	369131.40	3758945.42	1.52E-01	369131.40	3758945.42	6.62E-02	369131.40	3758945.42	1.45E-02	369131.40	3758945.42	1.39E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.89E+00	369131.40	3758945.42	5.88E-01	369131.40	3758945.42	2.58E-01	369131.40	3758945.42	4.77E-02	369131.40	3758945.42	4.54E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.06E-01	369131.40	3758945.42	3.24E-01	369131.40	3758945.42	1.55E-01	369131.40	3758945.42	1.90E-02	369131.40	3758945.42	1.78E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.51E-01	369131.40	3758945.42	1.39E-01	369131.40	3758945.42	6.21E-02	369131.40	3758945.42	1.28E-02	369131.40	3758945.42	1.23E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.74E+00	369131.40	3758945.42	2.03E-01	369131.40	3758945.42	9.31E-02	369131.40	3758945.42	1.87E-02	369131.40	3758945.42	1.80E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.16E+00	369131.40	3758945.42	1.66E-01	369131.40	3758945.42	7.74E-02	369131.40	3758945.42	1.50E-02	369131.40	3758945.42	1.44E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.16E-01	369131.40	3758945.42	1.45E-01	369131.40	3758945.42	6.65E-02	369131.40	3758945.42	1.31E-02	369131.40	3758945.42	1.26E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.47E+00	369131.40	3758945.42	1.31E-01	369131.40	3758945.42	6.26E-02	369131.40	3758945.42	1.27E-02	369131.40	3758945.42	1.22E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.13E+00	369131.40	3758945.42	1.89E-01	369131.40	3758945.42	8.77E-02	369131.40	3758945.42	1.78E-02	369131.40	3758945.42	1.71E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.09E+00	369131.40	3758945.42	1.62E-01	369131.40	3758945.42	7.13E-02	369131.40	3758945.42	1.53E-02	369131.40	3758945.42	1.47E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 1 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	1.24E+00	369131.40	3758945.42	1.69E-01	369131.40	3758945.42	7.76E-02	369131.40	3758945.42	1.50E-02	369131.40	3758945.42	1.45E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.21E+00	369131.40	3758945.42	1.74E-01	369131.40	3758945.42	8.01E-02	369131.40	3758945.42	1.59E-02	369131.40	3758945.42	1.53E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.29E+00	369131.40	3758945.42	8.13E-01	369131.40	3758945.42	3.45E-01	369131.40	3758945.42	5.98E-02	369131.40	3758945.42	5.73E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.39E+00	369131.40	3758945.42	1.76E-01	369131.40	3758945.42	7.97E-02	369131.40	3758945.42	1.47E-02	369131.40	3758945.42	1.41E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.20E+00	369131.40	3758945.42	7.68E-01	369131.40	3758945.42	3.18E-01	369131.40	3758945.42	6.11E-02	369131.40	3758945.42	5.85E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.77E+00	369131.40	3758945.42	2.43E-01	369131.40	3758945.42	1.13E-01	369131.40	3758945.42	2.15E-02	369131.40	3758945.42	2.07E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.79E-01	369131.40	3758945.42	1.21E-01	369131.40	3758945.42	5.39E-02	369131.40	3758945.42	1.04E-02	369131.40	3758945.42	9.95E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.53E+00	369131.40	3758945.42	8.63E-01	369131.40	3758945.42	3.64E-01	369131.40	3758945.42	6.83E-02	369131.40	3758945.42	6.54E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.88E+00	369131.40	3758945.42	7.31E-01	369131.40	3758945.42	3.14E-01	369131.40	3758945.42	5.60E-02	369131.40	3758945.42	5.36E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.39E+00	369131.40	3758945.42	6.28E-01	369131.40	3758945.42	3.04E-01	369131.40	3758945.42	4.46E-02	369131.40	3758945.42	4.34E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.76E+00	369131.40	3758945.42	9.09E-01	369131.40	3758945.42	3.87E-01	369131.40	3758945.42	6.68E-02	369131.40	3758945.42	6.40E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.87E+00	369131.40	3758945.42	1.98E+00	369131.40	3758945.42	1.00E+00	369131.40	3758945.42	1.16E-01	369131.40	3758945.42	1.12E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.18E+00	369131.40	3758945.42	7.66E-01	369131.40	3758945.42	3.71E-01	369131.40	3758945.42	5.19E-02	369131.40	3758945.42	4.97E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.23E+01	369131.40	3758945.42	1.08E+00	369131.40	3758945.42	4.58E-01	369131.40	3758945.42	6.89E-02	369131.40	3758945.42	6.63E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.67E+00	369131.40	3758945.42	7.55E-01	369131.40	3758945.42	3.66E-01	369131.40	3758945.42	6.28E-02	369131.40	3758945.42	5.94E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.43E+00	369131.40	3758945.42	2.10E-01	369131.40	3758945.42	9.46E-02	369131.40	3758945.42	1.73E-02	369131.40	3758945.42	1.67E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.45E+00	369131.40	3758945.42	2.13E-01	369131.40	3758945.42	9.61E-02	369131.40	3758945.42	1.75E-02	369131.40	3758945.42	1.69E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.13E+00	369131.40	3758945.42	1.46E-01	369131.40	3758945.42	6.39E-02	369131.40	3758945.42	1.23E-02	369131.40	3758945.42	1.18E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.06E+00	369131.40	3758945.42	1.52E-01	369131.40	3758945.42	6.71E-02	369131.40	3758945.42	1.21E-02	369131.40	3758945.42	1.16E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.25E+00	369131.40	3758945.42	9.66E-01	369131.40	3758945.42	4.68E-01	369131.40	3758945.42	6.31E-02	369131.40	3758945.42	6.15E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.01E+01	369131.40	3758945.42	2.86E+00	369131.40	3758945.42	1.46E+00	369131.40	3758945.42	1.80E-01	369131.40	3758945.42	1.69E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.45E+00	369131.40	3758945.42	1.99E-01	369131.40	3758945.42	8.89E-02	369131.40	3758945.42	1.68E-02	369131.40	3758945.42	1.61E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.39E+00	369131.40	3758945.42	7.22E-01	369131.40	3758945.42	3.33E-01	369131.40	3758945.42	5.39E-02	369131.40	3758945.42	5.21E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.09E+00	369131.40	3758945.42	1.09E+00	369131.40	3758945.42	4.95E-01	369131.40	3758945.42	8.45E-02	369131.40	3758945.42	8.17E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.38E+00	369131.40	3758945.42	6.11E-01	369131.40	3758945.42	2.72E-01	369131.40	3758945.42	5.75E-02	369131.40	3758945.42	5.53E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.40E+00	369131.40	3758945.42	5.35E-01	369131.40	3758945.42	2.38E-01	369131.40	3758945.42	4.68E-02	369131.40	3758945.42	4.51E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.91E+00	369131.40	3758945.42	4.78E-01	369131.40	3758945.42	2.11E-01	369131.40	3758945.42	4.18E-02	369131.40	3758945.42	4.00E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.63E+00	369131.40	3758945.42	5.34E-01	369131.40	3758945.42	2.55E-01	369131.40	3758945.42	5.26E-02	369131.40	3758945.42	4.98E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.44E+00	369131.40	3758945.42	1.68E+00	369131.40	3758945.42	8.39E-01	369131.40	3758945.42	1.57E-01	369131.40	3758945.42	1.50E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.78E+00	369131.40	3758945.42	7.25E-01	369131.40	3758945.42	3.51E-01	369131.40	3758945.42	5.09E-02	369131.40	3758945.42	4.90E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.87E+00	369131.40	3758945.42	6.40E-01	369131.40	3758945.42	3.17E-01	369131.40	3758945.42	5.70E-02	369131.40	3758945.42	5.45E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.50E+00	369131.40	3758945.42	5.73E-01	369131.40	3758945.42	2.53E-01	369131.40	3758945.42	3.54E-02	369131.40	3758945.42	3.41E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.95E+00	369131.40	3758945.42	1.11E+00	369131.40	3758945.42	5.55E-01	369131.40	3758945.42	9.91E-02	369131.40	3758945.42	9.43E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.74E+00	369131.40	3758945.42	6.62E-01	369131.40	3758945.42	2.58E-01	369131.40	3758945.42	6.20E-02	369131.40	3758945.42	5.90E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.82E+00	369131.40	3758945.42	1.42E+00	369131.40	3758945.42	6.31E-01	369131.40	3758945.42	1.06E-01	369131.40	3758945.42	1.01E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.30E+00	369131.40	3758945.42	6.45E-01	369131.40	3758945.42	2.53E-01	369131.40	3758945.42	5.08E-02	369131.40	3758945.42	4.84E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.17E+00	369131.40	3758945.42	6.35E-01	369131.40	3758945.42	2.49E-01	369131.40	3758945.42	4.98E-02	369131.40	3758945.42	4.75E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.27E+00	369131.40	3758945.42	1.89E-01	369131.40	3758945.42	8.39E-02	369131.40	3758945.42	1.74E-02	369131.40	3758945.42	1.66E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.03E+00	369131.40	3758945.42	1.63E-01	369131.40	3758945.42	7.16E-02	369131.40	3758945.42	1.42E-02	369131.40	3758945.42	1.36E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.61E+00	369131.40	3758945.42	1.27E+00	369131.40	3758945.42	6.10E-01	369131.40	3758945.42	8.27E-02	369131.40	3758945.42	7.87E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.40E+00	369131.40	3758945.42	1.32E+00	369131.40	3758945.42	6.56E-01	369131.40	3758945.42	1.13E-01	369131.40	3758945.42	1.07E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.61E-01	369131.40	3758945.42	1.05E-01	369131.40	3758945.42	4.62E-02	369131.40	3758945.42	9.63E-03	369131.40	3758945.42	9.24E-03	369131.40	3758945.42	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 1 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	4.89E-01	369131.40	3758945.42	9.26E-02	369131.40	3758945.42	4.21E-02	369131.40	3758945.42	8.37E-03	369131.40	3758945.42	8.00E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.17E-01	369131.40	3758945.42	8.10E-02	369131.40	3758945.42	3.65E-02	369131.40	3758945.42	7.48E-03	369131.40	3758945.42	7.18E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.38E-01	369131.40	3758945.42	5.91E-02	369131.40	3758945.42	2.66E-02	369131.40	3758945.42	5.49E-03	369131.40	3758945.42	5.28E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.68E-01	369131.40	3758945.42	7.57E-02	369131.40	3758945.42	3.22E-02	369131.40	3758945.42	6.78E-03	369131.40	3758945.42	6.50E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.49E-01	369131.40	3758945.42	1.03E-01	369131.40	3758945.42	4.63E-02	369131.40	3758945.42	9.60E-03	369131.40	3758945.42	9.21E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.68E+00	369131.40	3758945.42	3.67E-01	369131.40	3758945.42	1.56E-01	369131.40	3758945.42	2.57E-02	369131.40	3758945.42	2.42E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.99E-01	369131.40	3758945.42	3.23E-01	369131.40	3758945.42	1.55E-01	369131.40	3758945.42	2.53E-02	369131.40	3758945.42	2.41E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.55E-01	369131.40	3758945.42	1.11E-01	369131.40	3758945.42	4.99E-02	369131.40	3758945.42	1.04E-02	369131.40	3758945.42	9.99E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.74E-01	369131.40	3758945.42	1.25E-01	369131.40	3758945.42	5.75E-02	369131.40	3758945.42	1.07E-02	369131.40	3758945.42	1.01E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.22E-01	369131.40	3758945.42	1.02E-01	369131.40	3758945.42	4.55E-02	369131.40	3758945.42	9.47E-03	369131.40	3758945.42	9.09E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.46E-01	369131.40	3758945.42	1.14E-01	369131.40	3758945.42	5.11E-02	369131.40	3758945.42	1.06E-02	369131.40	3758945.42	1.02E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.78E-01	369131.40	3758945.42	1.34E-01	369131.40	3758945.42	5.31E-02	369131.40	3758945.42	1.16E-02	369131.40	3758945.42	1.11E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.36E-01	369131.40	3758945.42	5.85E-02	369131.40	3758945.42	2.65E-02	369131.40	3758945.42	5.24E-03	369131.40	3758945.42	4.99E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.23E-01	369131.40	3758945.42	5.37E-02	369131.40	3758945.42	2.42E-02	369131.40	3758945.42	4.99E-03	369131.40	3758945.42	4.79E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.61E-01	369131.40	3758945.42	5.35E-02	369131.40	3758945.42	2.35E-02	369131.40	3758945.42	4.78E-03	369131.40	3758945.42	4.60E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.71E-01	369131.40	3758945.42	6.40E-02	369131.40	3758945.42	2.79E-02	369131.40	3758945.42	5.71E-03	369131.40	3758945.42	5.48E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.84E-01	369131.40	3758945.42	9.07E-02	369131.40	3758945.42	4.06E-02	369131.40	3758945.42	8.44E-03	369131.40	3758945.42	8.11E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.04E-01	369131.40	3758945.42	8.82E-02	369131.40	3758945.42	4.01E-02	369131.40	3758945.42	8.13E-03	369131.40	3758945.42	7.81E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.74E-01	369131.40	3758945.42	9.26E-02	369131.40	3758945.42	4.15E-02	369131.40	3758945.42	8.57E-03	369131.40	3758945.42	8.23E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.83E-01	369131.40	3758945.42	1.11E-01	369131.40	3758945.42	4.99E-02	369131.40	3758945.42	1.04E-02	369131.40	3758945.42	9.95E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.80E-01	369131.40	3758945.42	4.95E-02	369131.40	3758945.42	2.15E-02	369131.40	3758945.42	4.36E-03	369131.40	3758945.42	4.19E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.65E-01	369131.40	3758945.42	4.79E-02	369131.40	3758945.42	2.08E-02	369131.40	3758945.42	4.23E-03	369131.40	3758945.42	4.07E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.94E-01	369131.40	3758945.42	4.90E-02	369131.40	3758945.42	2.16E-02	369131.40	3758945.42	4.43E-03	369131.40	3758945.42	4.25E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.23E-01	369131.40	3758945.42	5.87E-02	369131.40	3758945.42	2.57E-02	369131.40	3758945.42	5.27E-03	369131.40	3758945.42	5.07E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.13E-01	369131.40	3758945.42	7.29E-02	369131.40	3758945.42	3.20E-02	369131.40	3758945.42	7.34E-03	369131.40	3758945.42	7.04E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.40E+00	369131.40	3758945.42	2.37E-01	369131.40	3758945.42	9.88E-02	369131.40	3758945.42	1.61E-02	369131.40	3758945.42	1.52E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.23E+00	369131.40	3758945.42	3.58E-01	369131.40	3758945.42	1.66E-01	369131.40	3758945.42	2.73E-02	369131.40	3758945.42	2.59E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.84E-01	369131.40	3758945.42	8.97E-02	369131.40	3758945.42	4.00E-02	369131.40	3758945.42	8.32E-03	369131.40	3758945.42	7.99E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.28E-01	369131.40	3758945.42	9.74E-02	369131.40	3758945.42	4.22E-02	369131.40	3758945.42	9.04E-03	369131.40	3758945.42	8.68E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.58E-01	369131.40	3758945.42	8.53E-02	369131.40	3758945.42	3.88E-02	369131.40	3758945.42	7.93E-03	369131.40	3758945.42	7.62E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.48E-01	369131.40	3758945.42	8.62E-02	369131.40	3758945.42	3.88E-02	369131.40	3758945.42	7.92E-03	369131.40	3758945.42	7.61E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.33E-01	369131.40	3758945.42	1.01E-01	369131.40	3758945.42	4.47E-02	369131.40	3758945.42	9.32E-03	369131.40	3758945.42	8.95E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.37E+02	369131.40	3758945.42	1.02E+01	369131.40	3758945.42	3.09E+00	369131.40	3758945.42	6.63E-01	369131.40	3758945.42	6.29E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.04E+02	369131.40	3758945.42	7.85E+00	369131.40	3758945.42	2.39E+00	369131.40	3758945.42	5.07E-01	369131.40	3758945.42	4.81E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.68E+02	369131.40	3758945.42	6.16E+00	369131.40	3758945.42	2.07E+00	369131.40	3758945.42	3.96E-01	369131.40	3758945.42	3.75E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.36E+02	369131.40	3758945.42	5.54E+00	369131.40	3758945.42	2.77E+00	369131.40	3758945.42	3.17E-01	369131.40	3758945.42	3.00E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.17E+01	369131.40	3758945.42	1.24E+01	369131.40	3758945.42	5.99E+00	369131.40	3758945.42	2.20E+00	369131.40	3758945.42	2.06E+00	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.11E+02	369131.40	3758945.42	5.06E+00	369131.40	3758945.42	2.53E+00	369131.40	3758945.42	2.59E-01	369131.40	3758945.42	2.45E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.10E+01	369131.40	3758945.42	1.52E+00	369131.40	3758945.42	1.77E+00	369131.40	3758945.42	2.16E-01	369131.40	3758945.42	2.04E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.53E+01	369131.40	3758945.42	3.15E+00	369131.40	3758945.42	1.58E+00	369131.40	3758945.42	1.83E-01	369131.40	3758945.42	1.72E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.28E+01	369131.40	3758945.42	2.74E+00	369131.40	3758945.42	1.38E+00	369131.40	3758945.42	1.57E-01	369131.40	3758945.42	1.48E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.29E+01	369131.40	3758945.42	2.22E+00	369131.40	3758945.42	1.12E+00	369131.40	3758945.42	1.94E-01	369131.40	3758945.42	1.83E-01	369131.40	3758945.42	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 1 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	1.16E+00	369131.40	3758945.42	1.74E-01	369131.40	3758945.42	7.58E-02	369131.40	3758945.42	1.70E-02	369131.40	3758945.42	1.63E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.97E+00	369131.40	3758945.42	3.24E-01	369131.40	3758945.42	1.44E-01	369131.40	3758945.42	2.87E-02	369131.40	3758945.42	2.76E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.23E+00	369131.40	3758945.42	1.67E-01	369131.40	3758945.42	7.53E-02	369131.40	3758945.42	1.51E-02	369131.40	3758945.42	1.45E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.37E+00	369131.40	3758945.42	1.81E-01	369131.40	3758945.42	8.16E-02	369131.40	3758945.42	1.59E-02	369131.40	3758945.42	1.53E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.71E+00	369131.40	3758945.42	7.36E-01	369131.40	3758945.42	3.54E-01	369131.40	3758945.42	4.44E-02	369131.40	3758945.42	4.20E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.67E+00	369131.40	3758945.42	5.78E-01	369131.40	3758945.42	2.82E-01	369131.40	3758945.42	3.10E-02	369131.40	3758945.42	2.92E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.29E+00	369131.40	3758945.42	1.46E-01	369131.40	3758945.42	6.75E-02	369131.40	3758945.42	1.43E-02	369131.40	3758945.42	1.37E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.34E-01	369131.40	3758945.42	1.46E-01	369131.40	3758945.42	6.39E-02	369131.40	3758945.42	1.37E-02	369131.40	3758945.42	1.31E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.01E+00	369131.40	3758945.42	1.44E-01	369131.40	3758945.42	6.41E-02	369131.40	3758945.42	1.34E-02	369131.40	3758945.42	1.29E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.37E+00	369131.40	3758945.42	2.74E-01	369131.40	3758945.42	1.13E-01	369131.40	3758945.42	2.49E-02	369131.40	3758945.42	2.37E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.27E-01	369131.40	3758945.42	1.42E-01	369131.40	3758945.42	6.20E-02	369131.40	3758945.42	1.35E-02	369131.40	3758945.42	1.29E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.35E+00	369131.40	3758945.42	2.51E-01	369131.40	3758945.42	1.23E-01	369131.40	3758945.42	1.89E-02	369131.40	3758945.42	1.81E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.65E+00	369131.40	3758945.42	2.12E-01	369131.40	3758945.42	9.38E-02	369131.40	3758945.42	2.11E-02	369131.40	3758945.42	2.02E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.76E+00	369131.40	3758945.42	2.53E-01	369131.40	3758945.42	1.13E-01	369131.40	3758945.42	2.50E-02	369131.40	3758945.42	2.40E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.42E-01	369131.40	3758945.42	1.29E-01	369131.40	3758945.42	5.63E-02	369131.40	3758945.42	1.21E-02	369131.40	3758945.42	1.16E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.47E+00	369131.40	3758945.42	6.39E-01	369131.40	3758945.42	2.96E-01	369131.40	3758945.42	4.51E-02	369131.40

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 1 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	5.54E+01	369131.40	3758945.42	2.09E+00	369131.40	3758945.42	7.41E-01	369131.40	3758945.42	2.34E-01	369131.40	3758945.42	2.19E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.67E+01	369131.40	3758945.42	1.90E+00	369131.40	3758945.42	7.16E-01	369131.40	3758945.42	2.28E-01	369131.40	3758945.42	2.14E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.36E+01	369131.40	3758945.42	1.80E+00	369131.40	3758945.42	6.76E-01	369131.40	3758945.42	2.50E-01	369131.40	3758945.42	2.34E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.33E+00	369131.40	3758945.42	2.41E+00	369131.40	3758945.42	1.06E+00	369131.40	3758945.42	2.49E-01	369131.40	3758945.42	2.33E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.11E+00	369131.40	3758945.42	3.88E+00	369131.40	3758945.42	1.86E+00	369131.40	3758945.42	2.62E-01	369131.40	3758945.42	2.52E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.22E+01	369131.40	3758945.42	5.68E+00	369131.40	3758945.42	2.80E+00	369131.40	3758945.42	4.82E-01	369131.40	3758945.42	4.62E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.55E+01	369131.40	3758945.42	6.68E+00	369131.40	3758945.42	3.32E+00	369131.40	3758945.42	7.95E-01	369131.40	3758945.42	7.55E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.01E+01	369131.40	3758945.42	5.52E+00	369131.40	3758945.42	2.76E+00	369131.40	3758945.42	7.46E-01	369131.40	3758945.42	7.06E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.73E+01	369131.40	3758945.42	3.92E+00	369131.40	3758945.42	1.64E+00	369131.40	3758945.42	5.98E-01	369131.40	3758945.42	5.66E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.13E+01	369131.40	3758945.42	5.13E+00	369131.40	3758945.42	2.29E+00	369131.40	3758945.42	7.63E-01	369131.40	3758945.42	7.23E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.20E+00	369131.40	3758945.42	2.30E+00	369131.40	3758945.42	9.99E-01	369131.40	3758945.42	1.58E-01	369131.40	3758945.42	1.48E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.07E+00	369131.40	3758945.42	3.48E+00	369131.40	3758945.42	1.65E+00	369131.40	3758945.42	2.39E-01	369131.40	3758945.42	2.30E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.25E+01	369131.40	3758945.42	4.94E+00	369131.40	3758945.42	2.43E+00	369131.40	3758945.42	4.15E-01	369131.40	3758945.42	3.98E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.47E+01	369131.40	3758945.42	5.78E+00	369131.40	3758945.42	2.87E+00	369131.40	3758945.42	6.37E-01	369131.40	3758945.42	6.05E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.43E+01	369131.40	3758945.42	5.07E+00	369131.40	3758945.42	2.54E+00	369131.40	3758945.42	6.35E-01	369131.40	3758945.42	6.02E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.63E+01	369131.40	3758945.42	3.17E+00	369131.40	3758945.42	1.60E+00	369131.40	3758945.42	3.69E-01	369131.40	3758945.42	3.50E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.31E+01	369131.40	3758945.42	3.92E+00	369131.40	3758945.42	1.69E+00	369131.40	3758945.42	5.61E-01	369131.40	3758945.42	5.32E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.55E+01	369131.40	3758945.42	5.09E+00	369131.40	3758945.42	2.52E+00	369131.40	3758945.42	5.28E-01	369131.40	3758945.42	5.03E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.60E+01	369131.40	3758945.42	4.65E+00	369131.40	3758945.42	2.33E+00	369131.40	3758945.42	5.47E-01	369131.40	3758945.42	5.19E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.26E+01	369131.40	3758945.42	3.20E+00	369131.40	3758945.42	1.61E+00	369131.40	3758945.42	3.67E-01	369131.40	3758945.42	3.48E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.30E+01	369131.40	3758945.42	2.95E+00	369131.40	3758945.42	1.22E+00	369131.40	3758945.42	3.90E-01	369131.40	3758945.42	3.70E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.78E+01	369131.40	3758945.42	4.28E+00	369131.40	3758945.42	2.14E+00	369131.40	3758945.42	4.77E-01	369131.40	3758945.42	4.53E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.63E+01	369131.40	3758945.42	3.17E+00	369131.40	3758945.42	1.59E+00	369131.40	3758945.42	3.55E-01	369131.40	3758945.42	3.37E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.06E+01	369131.40	3758945.42	2.23E+00	369131.40	3758945.42	9.35E-01	369131.40	3758945.42	2.67E-01	369131.40	3758945.42	2.54E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.96E+00	369131.40	3758945.42	1.39E+00	369131.40	3758945.42	6.95E-01	369131.40	3758945.42	1.24E-01	369131.40	3758945.42	1.17E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.85E+00	369131.40	3758945.42	1.08E+00	369131.40	3758945.42	5.38E-01	369131.40	3758945.42	1.18E-01	369131.40	3758945.42	1.13E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.97E+00	369131.40	3758945.42	3.28E+00	369131.40	3758945.42	1.57E+00	369131.40	3758945.42	2.52E-01	369131.40	3758945.42	2.40E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.36E+00	369131.40	3758945.42	2.80E-01	369131.40	3758945.42	1.26E-01	369131.40	3758945.42	2.44E-02	369131.40	3758945.42	2.35E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.73E+00	369131.40	3758945.42	2.79E-01	369131.40	3758945.42	1.24E-01	369131.40	3758945.42	2.05E-02	369131.40	3758945.42	1.98E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.12E+01	369131.40	3758945.42	3.94E+00	369131.40	3758945.42	1.97E+00	369131.40	3758945.42	4.20E-01	369131.40	3758945.42	4.00E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.94E+01	369131.40	3758945.42	3.09E+00	369131.40	3758945.42	1.55E+00	369131.40	3758945.42	3.37E-01	369131.40	3758945.42	3.20E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.60E+01	369131.40	3758945.42	1.96E+00	369131.40	3758945.42	9.91E-01	369131.40	3758945.42	1.97E-01	369131.40	3758945.42	1.87E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.15E+01	369131.40	3758945.42	1.05E+00	369131.40	3758945.42	5.04E-01	369131.40	3758945.42	6.06E-02	369131.40	3758945.42	5.88E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.08E+01	369131.40	3758945.42	1.09E+00	369131.40	3758945.42	5.35E-01	369131.40	3758945.42	6.94E-02	369131.40	3758945.42	6.71E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.54E+00	369131.40	3758945.42	3.65E+00	369131.40	3758945.42	1.81E+00	369131.40	3758945.42	3.74E-01	369131.40	3758945.42	3.56E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.31E+01	369131.40	3758945.42	2.99E+00	369131.40	3758945.42	1.50E+00	369131.40	3758945.42	3.17E-01	369131.40	3758945.42	3.02E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.03E+01	369131.40	3758945.42	2.03E+00	369131.40	3758945.42	1.02E+00	369131.40	3758945.42	2.05E-01	369131.40	3758945.42	1.95E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.22E+00	369131.40	3758945.42	3.38E+00	369131.40	3758945.42	1.68E+00	369131.40	3758945.42	3.36E-01	369131.40	3758945.42	3.20E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.28E+00	369131.40	3758945.42	2.88E+00	369131.40	3758945.42	1.44E+00	369131.40	3758945.42	2.98E-01	369131.40	3758945.42	2.83E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.46E+01	369131.40	3758945.42	2.07E+00	369131.40	3758945.42	1.04E+00	369131.40	3758945.42	2.08E-01	369131.40	3758945.42	1.98E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.80E+00	369131.40	3758945.42	3.15E+00	369131.40	3758945.42	1.56E+00	369131.40	3758945.42	3.04E-01	369131.40	3758945.42	2.89E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.17E+00	369131.40	3758945.42	2.76E+00	369131.40	3758945.42	1.38E+00	369131.40	3758945.42	2.79E-01	369131.40	3758945.42	2.65E-01	369131.40	3758945.42	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 1 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	7.78E+00	369131.40	3758945.42	9.79E-01	369131.40	3758945.42	4.85E-01	369131.40	3758945.42	7.66E-02	369131.40	3758945.42	7.29E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.84E+00	369131.40	3758945.42	1.03E+00	369131.40	3758945.42	4.39E-01	369131.40	3758945.42	6.04E-02	369131.40	3758945.42	5.83E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.10E+00	369131.40	3758945.42	3.22E-01	369131.40	3758945.42	1.50E-01	369131.40	3758945.42	2.75E-02	369131.40	3758945.42	2.65E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.10E+00	369131.40	3758945.42	1.51E-01	369131.40	3758945.42	6.86E-02	369131.40	3758945.42	1.39E-02	369131.40	3758945.42	1.33E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.11E+00	369131.40	3758945.42	1.90E+00	369131.40	3758945.42	9.63E-01	369131.40	3758945.42	1.16E-01	369131.40	3758945.42	1.12E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.61E+00	369131.40	3758945.42	4.52E+00	369131.40	3758945.42	2.30E+00	369131.40	3758945.42	1.82E-01	369131.40	3758945.42	1.79E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.93E+00	369131.40	3758945.42	7.29E-01	369131.40	3758945.42	3.15E-01	369131.40	3758945.42	5.63E-02	369131.40	3758945.42	5.38E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.36E+01	369131.40	3758945.42	1.47E+00	369131.40	3758945.42	6.48E-01	369131.40	3758945.42	1.09E-01	369131.40	3758945.42	1.04E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.30E+01	369131.40	3758945.42	2.54E+00	369131.40	3758945.42	1.04E+00	369131.40	3758945.42	1.48E-01	369131.40	3758945.42	1.42E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.52E+00	369131.40	3758945.42	1.60E+00	369131.40	3758945.42	8.07E-01	369131.40	3758945.42	1.70E-01	369131.40	3758945.42	1.60E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.86E+00	369131.40	3758945.42	2.46E-01	369131.40	3758945.42	1.13E-01	369131.40	3758945.42	2.16E-02	369131.40	3758945.42	2.08E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.15E+01	369131.40	3758945.42	4.68E+00	369131.40	3758945.42	2.40E+00	369131.40	3758945.42	2.00E-01	369131.40	3758945.42	1.96E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.81E+02	369131.40	3758945.42	8.04E+00	369131.40	3758945.42	3.21E+00	369131.40	3758945.42	5.36E-01	369131.40	3758945.42	5.12E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.26E+02	369131.40	3758945.42	6.47E+00	369131.40	3758945.42	3.33E+00	369131.40	3758945.42	4.39E-01	369131.40	3758945.42	4.24E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.65E+01	369131.40	3758945.42	7.63E+00	369131.40	3758945.42	3.93E+00	369131.40	3758945.42	4.17E-01	369131.40	3758945.42	4.03E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.07E+02	369131.40	3758945.42	8.92E+00	369131.40	3758945.42	3.44E+00	369131.40	3758945.42	5.94E-01	369131.40	3758945.42	5.68E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.49E+01	369131.40	3758945.42	7.95E+00	369131.40	3758945.42	4.11E+00	369131.40	3758945.42	5.20E-01	369131.40	3758945.42	5.00E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.92E+01	369131.40	3758945.42	9.01E+00	369131.40	3758945.42	4.59E+00	369131.40	3758945.42	4.83E-01	369131.40	3758945.42	4.66E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.10E+01	369131.40	3758945.42	7.48E+00	369131.40	3758945.42	3.83E+00	369131.40	3758945.42	2.61E-01	369131.40	3758945.42	2.59E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.11E+02	369131.40	3758945.42	6.07E+00	369131.40	3758945.42	2.96E+00	369131.40	3758945.42	5.36E-01	369131.40	3758945.42	5.16E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.14E+01	369131.40	3758945.42	9.08E+00	369131.40	3758945.42	4.60E+00	369131.40	3758945.42	5.66E-01	369131.40	3758945.42	5.45E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.65E+01	369131.40	3758945.42	6.42E+00	369131.40	3758945.42	3.36E+00	369131.40	3758945.42	5.79E-01	369131.40	3758945.42	5.54E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.46E+01	369131.40	3758945.42	8.04E+00	369131.40	3758945.42	3.90E+00	369131.40	3758945.42	7.14E-01	369131.40	3758945.42	6.88E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.38E+02	369131.40	3758945.42	9.18E+00	369131.40	3758945.42	4.76E+00	369131.40	3758945.42	5.22E-01	369131.40	3758945.42	4.98E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.78E+01	369131.40	3758945.42	1.05E+01	369131.40	3758945.42	5.53E+00	369131.40	3758945.42	8.29E-01	369131.40	3758945.42	7.93E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.43E+02	369131.40	3758945.42	1.01E+01	369131.40	3758945.42	4.77E+00	369131.40	3758945.42	6.76E-01	369131.40	3758945.42	6.45E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.87E+01	369131.40	3758945.42	1.25E+01	369131.40	3758945.42	6.25E+00	369131.40	3758945.42	6.69E-01	369131.40	3758945.42	6.52E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.40E+02	369131.40	3758945.42	9.10E+00	369131.40	3758945.42	3.60E+00	369131.40	3758945.42	6.07E-01	369131.40	3758945.42	5.80E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.48E+02	369131.40	3758945.42	9.92E+00	369131.40	3758945.42	4.83E+00	369131.40	3758945.42	8.57E-01	369131.40	3758945.42	8.30E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.04E+02	369131.40	3758945.42	8.16E+00	369131.40	3758945.42	3.04E+00	369131.40	3758945.42	5.44E-01	369131.40	3758945.42	5.19E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.56E+02	369131.40	3758945.42	9.05E+00	369131.40	3758945.42	4.34E+00	369131.40	3758945.42	7.91E-01	369131.40	3758945.42	7.65E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.67E+01	369131.40	3758945.42	4.48E+00	369131.40	3758945.42	1.93E+00	369131.40	3758945.42	3.89E-01	369131.40	3758945.42	3.77E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.56E+02	369131.40	3758945.42	7.70E+00	369131.40	3758945.42	3.89E+00	369131.40	3758945.42	5.57E-01	369131.40	3758945.42	5.39E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.95E+01	369131.40	3758945.42	1.68E+01	369131.40	3758945.42	8.25E+00	369131.40	3758945.42	1.15E+00	369131.40	3758945.42	1.12E+00	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.20E+01	369131.40	3758945.42	6.86E+00	369131.40	3758945.42	3.44E+00	369131.40	3758945.42	3.84E-01	369131.40	3758945.42	3.72E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.99E+01	369131.40	3758945.42	1.05E+01	369131.40	3758945.42	5.21E+00	369131.40	3758945.42	5.84E-01	369131.40	3758945.42	5.71E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.17E+02	369131.40	3758945.42	1.24E+01	369131.40	3758945.42	6.10E+00	369131.40	3758945.42	7.43E-01	369131.40	3758945.42	7.19E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.73E+02	369131.40	3758945.42	2.93E+01	369131.40	3758945.42	1.28E+01	369131.40	3758945.42	2.31E-02	369131.40	3758945.42	2.23E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.77E+00	369131.40	3758945.42	4.11E-01	369131.40	3758945.42	1.81E-01	369131.40	3758945.42	3.26E-02	369131.40	3758945.42	3.15E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.61E+00	369131.40	3758945.42	4.23E-01	369131.40	3758945.42	1.90E-01	369131.40	3758945.42	3.37E-02	369131.40	3758945.42	3.24E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.97E+00	369131.40	3758945.42	2.84E-01	369131.40	3758945.42	1.27E-01	369131.40	3758945.42	2.46E-02	369131.40	3758945.42	2.37E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.53E-01	369131.40	3758945.42	1.41E-01	369131.40	3758945.42	6.29E-02	369131.40	3758945.42	1.23E-02	369131.40	3758945.42	1.18E-02	369131.40	3758945.42	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 1 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	9.87E+00	369131.40	3758945.42	2.08E+00	369131.40	3758945.42	1.04E+00	369131.40	3758945.42	2.07E-01	369131.40	3758945.42	1.97E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.12E+00	369131.40	3758945.42	7.07E-01	369131.40	3758945.42	3.42E-01	369131.40	3758945.42	8.15E-02	369131.40	3758945.42	7.69E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.03E+00	369131.40	3758945.42	7.12E-01	369131.40	3758945.42	3.43E-01	369131.40	3758945.42	8.72E-02	369131.40	3758945.42	8.28E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.49E+00	369131.40	3758945.42	9.12E-01	369131.40	3758945.42	4.48E-01	369131.40	3758945.42	6.54E-02	369131.40	3758945.42	6.30E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.61E+00	369131.40	3758945.42	8.19E-01	369131.40	3758945.42	4.06E-01	369131.40	3758945.42	7.14E-02	369131.40	3758945.42	6.85E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.57E+00	369131.40	3758945.42	2.94E+00	369131.40	3758945.42	1.45E+00	369131.40	3758945.42	2.77E-01	369131.40	3758945.42	2.64E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.54E+00	369131.40	3758945.42	2.65E+00	369131.40	3758945.42	1.32E+00	369131.40	3758945.42	2.61E-01	369131.40	3758945.42	2.48E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.28E+00	369131.40	3758945.42	2.07E+00	369131.40	3758945.42	1.04E+00	369131.40	3758945.42	2.04E-01	369131.40	3758945.42	1.94E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.24E+01	369131.40	3758945.42	1.03E+00	369131.40	3758945.42	3.48E-01	369131.40	3758945.42	6.36E-02	369131.40	3758945.42	5.95E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.67E+01	369131.40	3758945.42	1.21E+00	369131.40	3758945.42	4.24E-01	369131.40	3758945.42	7.54E-02	369131.40	3758945.42	7.07E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.36E+01	369131.40	3758945.42	1.40E+00	369131.40	3758945.42	5.24E-01	369131.40	3758945.42	8.86E-02	369131.40	3758945.42	8.35E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.58E+01	369131.40	3758945.42	1.64E+00	369131.40	3758945.42	6.71E-01	369131.40	3758945.42	1.08E-01	369131.40	3758945.42	1.03E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.08E+00	369131.40	3758945.42	1.98E+00	369131.40	3758945.42	8.72E-01	369131.40	3758945.42	1.40E-01	369131.40	3758945.42	1.33E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.96E+01	369131.40	3758945.42	1.22E+00	369131.40	3758945.42	5.84E-01	369131.40	3758945.42	7.63E-02	369131.40	3758945.42	7.25E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.25E+00	369131.40	3758945.42	3.28E-01	369131.40	3758945.42	1.45E-01	369131.40	3758945.42	2.56E-02	369131.40	3758945.42	2.46E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.03E+00	369131.40	3758945.42	2.56E-01	369131.40	3758945.42	1.13E-01	369131.40	3758945.42	2.56E-02	369131.40

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 8 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	1.37E+00	369131.40	3758945.42	1.10E-01	369131.40	3758945.42	5.57E-02	369131.40	3758945.42	9.27E-03	369131.40	3758945.42	8.88E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.64E-01	369131.40	3758945.42	2.56E-01	369131.40	3758945.42	1.30E-01	369131.40	3758945.42	1.47E-02	369131.40	3758945.42	1.43E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.27E-01	369131.40	3758945.42	1.90E-02	369131.40	3758945.42	8.39E-03	369131.40	3758945.42	1.56E-03	369131.40	3758945.42	1.50E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.63E+00	369131.40	3758945.42	3.71E-01	369131.40	3758945.42	1.58E-01	369131.40	3758945.42	1.84E-02	369131.40	3758945.42	1.77E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.12E+00	369131.40	3758945.42	4.58E-01	369131.40	3758945.42	2.22E-01	369131.40	3758945.42	3.27E-02	369131.40	3758945.42	3.16E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.47E-01	369131.40	3758945.42	9.55E-02	369131.40	3758945.42	4.34E-02	369131.40	3758945.42	8.04E-03	369131.40	3758945.42	7.69E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.14E-01	369131.40	3758945.42	8.18E-02	369131.40	3758945.42	3.57E-02	369131.40	3758945.42	6.91E-03	369131.40	3758945.42	6.65E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.07E-01	369131.40	3758945.42	8.84E-02	369131.40	3758945.42	3.87E-02	369131.40	3758945.42	7.80E-03	369131.40	3758945.42	7.51E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.25E+00	369131.40	3758945.42	9.82E-02	369131.40	3758945.42	4.76E-02	369131.40	3758945.42	7.87E-03	369131.40	3758945.42	7.61E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.06E-01	369131.40	3758945.42	9.39E-02	369131.40	3758945.42	4.32E-02	369131.40	3758945.42	5.78E-03	369131.40	3758945.42	5.58E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.40E-01	369131.40	3758945.42	1.95E-02	369131.40	3758945.42	8.69E-03	369131.40	3758945.42	1.57E-03	369131.40	3758945.42	1.52E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.12E-01	369131.40	3758945.42	1.71E-02	369131.40	3758945.42	7.57E-03	369131.40	3758945.42	1.39E-03	369131.40	3758945.42	1.34E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.39E-01	369131.40	3758945.42	3.52E-02	369131.40	3758945.42	1.57E-02	369131.40	3758945.42	2.81E-03	369131.40	3758945.42	2.69E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.82E-01	369131.40	3758945.42	2.21E-01	369131.40	3758945.42	1.00E-01	369131.40	3758945.42	1.78E-02	369131.40	3758945.42	1.70E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.22E-01	369131.40	3758945.42	5.87E-02	369131.40	3758945.42	2.64E-02	369131.40	3758945.42	4.36E-03	369131.40	3758945.42	4.22E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.69E-01	369131.40	3758945.42	1.67E-01	369131.40	3758945.42	7.39E-02	369131.40	3758945.42	1.64E-02	369131.40	3758945.42	1.57E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.04E+00	369131.40	3758945.42	1.01E-01	369131.40	3758945.42	4.65E-02	369131.40	3758945.42	8.93E-03	369131.40	3758945.42	8.54E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.33E+00	369131.40	3758945.42	1.03E-01	369131.40	3758945.42	4.25E-02	369131.40	3758945.42	8.59E-03	369131.40	3758945.42	8.22E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.85E-01	369131.40	3758945.42	7.95E-02	369131.40	3758945.42	3.78E-02	369131.40	3758945.42	7.32E-03	369131.40	3758945.42	7.00E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.86E-01	369131.40	3758945.42	1.32E-01	369131.40	3758945.42	6.13E-02	369131.40	3758945.42	7.53E-03	369131.40	3758945.42	6.84E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.66E+00	369131.40	3758945.42	1.87E-01	369131.40	3758945.42	9.45E-02	369131.40	3758945.42	1.57E-02	369131.40	3758945.42	1.51E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.32E+00	369131.40	3758945.42	1.77E-01	369131.40	3758945.42	8.92E-02	369131.40	3758945.42	1.14E-02	369131.40	3758945.42	1.10E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.56E+00	369131.40	3758945.42	6.20E-01	369131.40	3758945.42	2.91E-01	369131.40	3758945.42	4.22E-02	369131.40	3758945.42	4.10E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.78E+00	369131.40	3758945.42	2.00E+00	369131.40	3758945.42	9.68E-01	369131.40	3758945.42	4.03E-01	369131.40	3758945.42	3.79E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.57E+01	369131.40	3758945.42	2.45E+00	369131.40	3758945.42	1.13E+00	369131.40	3758945.42	9.55E-01	369131.40	3758945.42	8.96E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.93E+00	369131.40	3758945.42	1.17E+00	369131.40	3758945.42	5.46E-01	369131.40	3758945.42	1.15E-01	369131.40	3758945.42	1.10E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.81E+00	369131.40	3758945.42	1.31E+00	369131.40	3758945.42	6.02E-01	369131.40	3758945.42	1.52E-01	369131.40	3758945.42	1.45E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.36E+00	369131.40	3758945.42	1.34E+00	369131.40	3758945.42	6.26E-01	369131.40	3758945.42	1.54E-01	369131.40	3758945.42	1.47E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.56E+00	369131.40	3758945.42	9.34E-01	369131.40	3758945.42	4.36E-01	369131.40	3758945.42	9.67E-02	369131.40	3758945.42	9.28E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.89E-01	369131.40	3758945.42	1.37E-01	369131.40	3758945.42	6.38E-02	369131.40	3758945.42	7.94E-03	369131.40	3758945.42	7.25E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.32E-01	369131.40	3758945.42	1.32E-01	369131.40	3758945.42	6.48E-02	369131.40	3758945.42	9.11E-03	369131.40	3758945.42	8.65E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.03E-01	369131.40	3758945.42	1.21E-01	369131.40	3758945.42	5.78E-02	369131.40	3758945.42	8.12E-03	369131.40	3758945.42	7.68E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.35E-01	369131.40	3758945.42	1.16E-01	369131.40	3758945.42	5.61E-02	369131.40	3758945.42	8.07E-03	369131.40	3758945.42	7.68E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.20E-01	369131.40	3758945.42	1.11E-01	369131.40	3758945.42	5.40E-02	369131.40	3758945.42	7.95E-03	369131.40	3758945.42	7.60E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.00E-01	369131.40	3758945.42	1.15E-01	369131.40	3758945.42	5.57E-02	369131.40	3758945.42	9.88E-03	369131.40	3758945.42	9.53E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.34E-01	369131.40	3758945.42	1.43E-01	369131.40	3758945.42	7.22E-02	369131.40	3758945.42	1.07E-02	369131.40	3758945.42	1.02E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.88E-01	369131.40	3758945.42	1.84E-01	369131.40	3758945.42	8.75E-02	369131.40	3758945.42	1.43E-02	369131.40	3758945.42	1.39E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.09E+00	369131.40	3758945.42	1.90E-01	369131.40	3758945.42	9.52E-02	369131.40	3758945.42	1.48E-02	369131.40	3758945.42	1.43E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.53E+00	369131.40	3758945.42	2.16E-01	369131.40	3758945.42	1.05E-01	369131.40	3758945.42	1.73E-02	369131.40	3758945.42	1.68E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.94E+00	369131.40	3758945.42	2.09E-01	369131.40	3758945.42	1.05E-01	369131.40	3758945.42	1.62E-02	369131.40	3758945.42	1.56E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.36E+00	369131.40	3758945.42	1.61E-01	369131.40	3758945.42	8.13E-02	369131.40	3758945.42	1.24E-02	369131.40	3758945.42	1.19E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.08E+01	369131.40	3758945.42	2.17E+00	369131.40	3758945.42	6.50E-01	369131.40	3758945.42	1.43E-01	369131.40	3758945.42	1.36E-01	369131.40	3758945.42	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 1 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	1.14E+01	369131.40	3758945.42	1.11E+00	369131.40	3758945.42	5.02E-01	369131.40	3758945.42	7.62E-02	369131.40	3758945.42	7.23E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.04E+01	369131.40	3758945.42	1.13E+00	369131.40	3758945.42	5.04E-01	369131.40	3758945.42	7.87E-02	369131.40	3758945.42	7.47E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.15E+01	369131.40	3758945.42	1.15E+00	369131.40	3758945.42	5.02E-01	369131.40	3758945.42	8.27E-02	369131.40	3758945.42	7.87E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.30E+01	369131.40	3758945.42	1.15E+00	369131.40	3758945.42	5.18E-01	369131.40	3758945.42	8.58E-02	369131.40	3758945.42	8.18E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.40E+01	369131.40	3758945.42	1.18E+00	369131.40	3758945.42	5.44E-01	369131.40	3758945.42	8.79E-02	369131.40	3758945.42	8.40E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.46E+01	369131.40	3758945.42	1.26E+00	369131.40	3758945.42	5.69E-01	369131.40	3758945.42	8.84E-02	369131.40	3758945.42	8.45E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.56E+01	369131.40	3758945.42	1.33E+00	369131.40	3758945.42	5.91E-01	369131.40	3758945.42	9.22E-02	369131.40	3758945.42	8.83E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.56E+01	369131.40	3758945.42	1.40E+00	369131.40	3758945.42	6.09E-01	369131.40	3758945.42	1.01E-01	369131.40	3758945.42	9.68E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.43E+01	369131.40	3758945.42	1.45E+00	369131.40	3758945.42	6.19E-01	369131.40	3758945.42	1.08E-01	369131.40	3758945.42	1.04E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.03E+01	369131.40	3758945.42	1.87E+00	369131.40	3758945.42	7.64E-01	369131.40	3758945.42	1.55E-01	369131.40	3758945.42	1.48E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.86E+01	369131.40	3758945.42	1.91E+00	369131.40	3758945.42	7.33E-01	369131.40	3758945.42	1.75E-01	369131.40	3758945.42	1.67E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.83E+01	369131.40	3758945.42	1.69E+00	369131.40	3758945.42	6.46E-01	369131.40	3758945.42	1.60E-01	369131.40	3758945.42	1.52E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.09E+01	369131.40	3758945.42	1.47E+00	369131.40	3758945.42	6.10E-01	369131.40	3758945.42	1.31E-01	369131.40	3758945.42	1.25E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.78E+01	369131.40	3758945.42	1.47E+00	369131.40	3758945.42	6.24E-01	369131.40	3758945.42	1.14E-01	369131.40	3758945.42	1.09E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.69E+01	369131.40	3758945.42	1.51E+00	369131.40	3758945.42	6.24E-01	369131.40	3758945.42	1.14E-01	369131.40	3758945.42	1.09E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.64E+01	369131.40	3758945.42	1.23E+00	369131.40	3758945.42	5.06E-01	369131.40	3758945.42	9.44E-02	369131.40	3758945.42	9.04E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.53E+01	369131.40	3758945.42	1.17E+00	369131.40	3758945.42	4.74E-01	369131.40	3758945.42	9.36E-02	369131.40	3758945.42	8.96E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.23E+01	369131.40	3758945.42	1.19E+00	369131.40	3758945.42	5.05E-01	369131.40	3758945.42	8.88E-02	369131.40	3758945.42	8.49E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.56E+01	369131.40	3758945.42	1.53E+00	369131.40	3758945.42	6.45E-01	369131.40	3758945.42	9.74E-02	369131.40	3758945.42	9.38E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.78E+01	369131.40	3758945.42	1.55E+00	369131.40	3758945.42	6.43E-01	369131.40	3758945.42	1.08E-01	369131.40	3758945.42	1.04E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.52E+01	369131.40	3758945.42	1.42E+00	369131.40	3758945.42	5.95E-01	369131.40	3758945.42	9.54E-02	369131.40	3758945.42	9.15E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.02E+01	369131.40	3758945.42	2.05E+00	369131.40	3758945.42	8.51E-01	369131.40	3758945.42	1.06E-01	369131.40	3758945.42	1.02E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.92E+01	369131.40	3758945.42	2.64E+00	369131.40	3758945.42	1.10E+00	369131.40	3758945.42	1.41E-01	369131.40	3758945.42	1.37E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.93E+01	369131.40	3758945.42	2.75E+00	369131.40	3758945.42	1.15E+00	369131.40	3758945.42	1.62E-01	369131.40	3758945.42	1.56E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.27E+01	369131.40	3758945.42	2.96E+00	369131.40	3758945.42	1.22E+00	369131.40	3758945.42	1.58E-01	369131.40	3758945.42	1.52E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.21E+01	369131.40	3758945.42	2.29E+00	369131.40	3758945.42	9.66E-01	369131.40	3758945.42	1.39E-01	369131.40	3758945.42	1.34E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.11E+01	369131.40	3758945.42	2.05E+00	369131.40	3758945.42	8.83E-01	369131.40	3758945.42	1.38E-01	369131.40	3758945.42	1.33E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.69E+01	369131.40	3758945.42	1.70E+00	369131.40	3758945.42	7.29E-01	369131.40	3758945.42	1.29E-01	369131.40	3758945.42	1.24E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.14E+01	369131.40	3758945.42	1.59E+00	369131.40	3758945.42	6.86E-01	369131.40	3758945.42	1.16E-01	369131.40	3758945.42	1.11E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.86E+00	369131.40	3758945.42	1.38E+00	369131.40	3758945.42	6.11E-01	369131.40	3758945.42	1.01E-01	369131.40	3758945.42	9.68E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.07E+00	369131.40	3758945.42	1.12E+00	369131.40	3758945.42	5.10E-01	369131.40	3758945.42	9.35E-02	369131.40	3758945.42	8.96E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.29E+00	369131.40	3758945.42	8.81E-01	369131.40	3758945.42	4.07E-01	369131.40	3758945.42	8.45E-02	369131.40	3758945.42	8.07E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.25E+00	369131.40	3758945.42	6.65E-01	369131.40	3758945.42	3.13E-01	369131.40	3758945.42	7.42E-02	369131.40	3758945.42	7.06E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.16E+00	369131.40	3758945.42	5.96E-01	369131.40	3758945.42	2.69E-01	369131.40	3758945.42	6.31E-02	369131.40	3758945.42	5.99E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.92E+00	369131.40	3758945.42	5.78E-01	369131.40	3758945.42	2.57E-01	369131.40	3758945.42	4.96E-02	369131.40	3758945.42	4.71E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.37E+00	369131.40	3758945.42	5.61E-01	369131.40	3758945.42	2.57E-01	369131.40	3758945.42	4.37E-02	369131.40	3758945.42	4.22E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.75E+00	369131.40	3758945.42	5.11E-01	369131.40	3758945.42	2.38E-01	369131.40	3758945.42	4.37E-02	369131.40	3758945.42	4.22E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.31E+00	369131.40	3758945.42	4.68E-01	369131.40	3758945.42	2.17E-01	369131.40	3758945.42	4.17E-02	369131.40	3758945.42	4.01E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.05E+01	369131.40	3758945.42	5.52E-01	369131.40	3758945.42	2.15E-01	369131.40	3758945.42	3.77E-02	369131.40	3758945.42	3.62E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.44E+01	369131.40	3758945.42	6.52E-01	369131.40	3758945.42	2.23E-01	369131.40	3758945.42	4.01E-02	369131.40	3758945.42	3.84E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.64E+01	369131.40	3758945.42	7.35E-01	369131.40	3758945.42	2.53E-01	369131.40	3758945.42	4.39E-02	369131.40	3758945.42	4.21E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.58E+01	369131.40	3758945.42	8.03E-01	369131.40	3758945.42	2.92E-01	369131.40	3758945.42	4.62E-02	369131.40	3758945.42	4.45E-02	369131.40	3758945.42	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 8 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	6.40E+00	369131.40	3758945.42	5.56E+00	369131.40	3758945.42	2.51E+00	369131.40	3758945.42	6.29E-01	369131.40	3758945.42	6.07E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.30E+00	369131.40	3758945.42	4.35E+00	369131.40	3758945.42	1.98E+00	369131.40	3758945.42	4.69E-01	369131.40	3758945.42	4.53E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.13E+00	369131.40	3758945.42	2.12E+00	369131.40	3758945.42	1.05E+00	369131.40	3758945.42	2.81E-01	369131.40	3758945.42	2.65E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.00E-01	369131.40	3758945.42	1.24E-01	369131.40	3758945.42	6.01E-02	369131.40	3758945.42	8.74E-03	369131.40	3758945.42	8.36E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.98E-01	369131.40	3758945.42	1.42E-01	369131.40	3758945.42	6.56E-02	369131.40	3758945.42	7.68E-03	369131.40	3758945.42	6.87E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.00E-01	369131.40	3758945.42	1.34E-01	369131.40	3758945.42	6.21E-02	369131.40	3758945.42	7.62E-03	369131.40	3758945.42	6.92E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.28E-01	369131.40	3758945.42	1.50E-01	369131.40	3758945.42	6.87E-02	369131.40	3758945.42	7.69E-03	369131.40	3758945.42	6.78E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.44E-01	369131.40	3758945.42	1.38E-01	369131.40	3758945.42	6.39E-02	369131.40	3758945.42	7.72E-03	369131.40	3758945.42	6.98E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.08E+00	369131.40	3758945.42	1.56E-01	369131.40	3758945.42	7.12E-02	369131.40	3758945.42	7.65E-03	369131.40	3758945.42	6.64E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.22E+00	369131.40	3758945.42	1.61E-01	369131.40	3758945.42	7.33E-02	369131.40	3758945.42	7.60E-03	369131.40	3758945.42	6.49E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.80E-01	369131.40	3758945.42	1.42E-01	369131.40	3758945.42	6.57E-02	369131.40	3758945.42	7.89E-03	369131.40	3758945.42	7.12E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.28E+00	369131.40	3758945.42	1.62E-01	369131.40	3758945.42	7.40E-02	369131.40	3758945.42	7.34E-03	369131.40	3758945.42	6.17E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.39E-01	369131.40	3758945.42	1.41E-01	369131.40	3758945.42	6.62E-02	369131.40	3758945.42	8.45E-03	369131.40	3758945.42	7.84E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.25E+00	369131.40	3758945.42	1.60E-01	369131.40	3758945.42	7.31E-02	369131.40	3758945.42	6.98E-03	369131.40	3758945.42	5.76E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.84E-01	369131.40	3758945.42	1.43E-01	369131.40	3758945.42	6.68E-02	369131.40	3758945.42	8.53E-03	369131.40	3758945.42	7.92E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.13E+00	369131.40	3758945.42	1.55E-01	369131.40	3758945.42	7.06E-02	369131.40	3758945.42	6.54E-03	369131.40	3758945.42	5.33E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.44E-01	369131.40	3758945.42

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 8 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	1.83E+00	369131.40	3758945.42	2.59E-01	369131.40	3758945.42	1.31E-01	369131.40	3758945.42	1.90E-02	369131.40	3758945.42	1.82E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.09E+00	369131.40	3758945.42	2.27E-01	369131.40	3758945.42	1.14E-01	369131.40	3758945.42	1.23E-02	369131.40	3758945.42	1.18E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.56E+00	369131.40	3758945.42	2.67E-01	369131.40	3758945.42	1.35E-01	369131.40	3758945.42	1.97E-02	369131.40	3758945.42	1.89E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.75E+00	369131.40	3758945.42	2.14E-01	369131.40	3758945.42	1.08E-01	369131.40	3758945.42	1.31E-02	369131.40	3758945.42	1.26E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.74E+00	369131.40	3758945.42	2.61E-01	369131.40	3758945.42	1.27E-01	369131.40	3758945.42	2.15E-02	369131.40	3758945.42	2.07E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.64E+00	369131.40	3758945.42	2.43E-01	369131.40	3758945.42	1.23E-01	369131.40	3758945.42	2.01E-02	369131.40	3758945.42	1.93E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.58E+00	369131.40	3758945.42	2.25E-01	369131.40	3758945.42	1.14E-01	369131.40	3758945.42	1.84E-02	369131.40	3758945.42	1.77E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.70E+00	369131.40	3758945.42	2.59E-01	369131.40	3758945.42	1.29E-01	369131.40	3758945.42	2.15E-02	369131.40	3758945.42	2.07E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.83E+00	369131.40	3758945.42	1.76E-01	369131.40	3758945.42	8.84E-02	369131.40	3758945.42	1.32E-02	369131.40	3758945.42	1.26E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.78E+00	369131.40	3758945.42	2.63E-01	369131.40	3758945.42	1.33E-01	369131.40	3758945.42	2.17E-02	369131.40	3758945.42	2.10E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.74E+00	369131.40	3758945.42	2.60E-01	369131.40	3758945.42	1.32E-01	369131.40	3758945.42	2.12E-02	369131.40	3758945.42	2.04E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.23E+00	369131.40	3758945.42	1.80E-01	369131.40	3758945.42	7.48E-02	369131.40	3758945.42	1.25E-02	369131.40	3758945.42	1.19E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.63E+00	369131.40	3758945.42	2.51E-01	369131.40	3758945.42	1.27E-01	369131.40	3758945.42	2.05E-02	369131.40	3758945.42	1.97E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.42E+00	369131.40	3758945.42	2.96E-01	369131.40	3758945.42	1.47E-01	369131.40	3758945.42	1.83E-02	369131.40	3758945.42	1.75E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.55E+00	369131.40	3758945.42	2.76E-01	369131.40	3758945.42	1.37E-01	369131.40	3758945.42	2.04E-02	369131.40	3758945.42	1.96E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.33E+00	369131.40	3758945.42	1.83E-01	369131.40	3758945.42	7.65E-02	369131.40	3758945.42	1.28E-02	369131.40	3758945.42	1.23E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.12E+00	369131.40	3758945.42	3.65E-01	369131.40	3758945.42	1.84E-01	369131.40	3758945.42	1.82E-02	369131.40	3758945.42	1.75E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.26E+00	369131.40	3758945.42	2.38E-01	369131.40	3758945.42	9.92E-02	369131.40	3758945.42	1.67E-02	369131.40	3758945.42	1.62E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.18E-01	369131.40	3758945.42	4.29E-01	369131.40	3758945.42	2.18E-01	369131.40	3758945.42	2.08E-02	369131.40	3758945.42	2.03E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.62E+00	369131.40	3758945.42	2.70E-01	369131.40	3758945.42	1.12E-01	369131.40	3758945.42	1.91E-02	369131.40	3758945.42	1.84E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.36E+00	369131.40	3758945.42	2.88E-01	369131.40	3758945.42	1.16E-01	369131.40	3758945.42	2.05E-02	369131.40	3758945.42	1.97E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.57E-01	369131.40	3758945.42	4.68E-01	369131.40	3758945.42	2.38E-01	369131.40	3758945.42	2.36E-02	369131.40	3758945.42	2.30E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.72E+00	369131.40	3758945.42	3.17E-01	369131.40	3758945.42	1.34E-01	369131.40	3758945.42	1.89E-02	369131.40	3758945.42	1.82E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.20E+00	369131.40	3758945.42	4.31E-01	369131.40	3758945.42	2.20E-01	369131.40	3758945.42	3.31E-02	369131.40	3758945.42	3.18E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.12E+00	369131.40	3758945.42	5.50E-01	369131.40	3758945.42	2.79E-01	369131.40	3758945.42	2.74E-02	369131.40	3758945.42	2.63E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.02E+00	369131.40	3758945.42	5.40E-01	369131.40	3758945.42	2.75E-01	369131.40	3758945.42	2.62E-02	369131.40	3758945.42	2.55E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.33E+00	369131.40	3758945.42	4.92E-01	369131.40	3758945.42	2.44E-01	369131.40	3758945.42	3.61E-02	369131.40	3758945.42	3.49E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.03E+00	369131.40	3758945.42	4.63E-01	369131.40	3758945.42	2.36E-01	369131.40	3758945.42	2.55E-02	369131.40	3758945.42	2.48E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.64E+00	369131.40	3758945.42	3.28E-01	369131.40	3758945.42	1.39E-01	369131.40	3758945.42	1.83E-02	369131.40	3758945.42	1.76E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.39E+00	369131.40	3758945.42	5.60E-01	369131.40	3758945.42	2.76E-01	369131.40	3758945.42	3.96E-02	369131.40	3758945.42	3.82E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.39E+00	369131.40	3758945.42	6.24E-01	369131.40	3758945.42	3.07E-01	369131.40	3758945.42	4.32E-02	369131.40	3758945.42	4.18E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.93E+00	369131.40	3758945.42	3.47E-01	369131.40	3758945.42	1.46E-01	369131.40	3758945.42	1.87E-02	369131.40	3758945.42	1.80E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.40E+00	369131.40	3758945.42	3.65E-01	369131.40	3758945.42	1.52E-01	369131.40	3758945.42	1.95E-02	369131.40	3758945.42	1.88E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.46E+00	369131.40	3758945.42	6.65E-01	369131.40	3758945.42	3.28E-01	369131.40	3758945.42	4.56E-02	369131.40	3758945.42	4.41E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.70E+00	369131.40	3758945.42	3.77E-01	369131.40	3758945.42	1.56E-01	369131.40	3758945.42	2.04E-02	369131.40	3758945.42	1.96E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.86E+00	369131.40	3758945.42	3.82E-01	369131.40	3758945.42	1.57E-01	369131.40	3758945.42	2.12E-02	369131.40	3758945.42	2.04E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.68E+00	369131.40	3758945.42	8.77E-01	369131.40	3758945.42	4.25E-01	369131.40	3758945.42	6.66E-02	369131.40	3758945.42	6.42E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.72E+00	369131.40	3758945.42	7.76E-01	369131.40	3758945.42	3.92E-01	369131.40	3758945.42	6.40E-02	369131.40	3758945.42	6.18E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.54E+00	369131.40	3758945.42	8.03E-01	369131.40	3758945.42	4.10E-01	369131.40	3758945.42	5.46E-02	369131.40	3758945.42	5.26E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.76E+01	369131.40	3758945.42	7.46E-01	369131.40	3758945.42	3.54E-01	369131.40	3758945.42	4.98E-02	369131.40	3758945.42	4.75E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.80E+01	369131.40	3758945.42	7.08E-01	369131.40	3758945.42	3.43E-01	369131.40	3758945.42	4.72E-02	369131.40	3758945.42	4.53E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.38E+01	369131.40	3758945.42	1.02E+00	369131.40	3758945.42	3.25E-01	369131.40	3758945.42	6.80E-02	369131.40	3758945.42	6.50E-02	369131.40	3758945.42	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 8 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	9.59E-01	369131.40	3758945.42	1.34E-01	369131.40	3758945.42	6.37E-02	369131.40	3758945.42	7.70E-03	369131.40	3758945.42	6.97E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.40E-01	369131.40	3758945.42	1.21E-01	369131.40	3758945.42	5.82E-02	369131.40	3758945.42	8.24E-03	369131.40	3758945.42	7.82E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.64E-01	369131.40	3758945.42	1.36E-01	369131.40	3758945.42	6.36E-02	369131.40	3758945.42	8.12E-03	369131.40	3758945.42	7.41E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.33E-01	369131.40	3758945.42	1.14E-01	369131.40	3758945.42	5.51E-02	369131.40	3758945.42	8.05E-03	369131.40	3758945.42	7.68E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.93E-01	369131.40	3758945.42	1.39E-01	369131.40	3758945.42	6.46E-02	369131.40	3758945.42	8.42E-03	369131.40	3758945.42	7.70E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.68E-01	369131.40	3758945.42	1.20E-01	369131.40	3758945.42	5.80E-02	369131.40	3758945.42	8.36E-03	369131.40	3758945.42	7.97E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.95E-01	369131.40	3758945.42	1.29E-01	369131.40	3758945.42	6.17E-02	369131.40	3758945.42	8.71E-03	369131.40	3758945.42	8.28E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.01E+00	369131.40	3758945.42	1.41E-01	369131.40	3758945.42	6.48E-02	369131.40	3758945.42	8.66E-03	369131.40	3758945.42	7.94E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.08E-01	369131.40	3758945.42	1.28E-01	369131.40	3758945.42	6.15E-02	369131.40	3758945.42	8.74E-03	369131.40	3758945.42	8.32E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.21E-01	369131.40	3758945.42	1.31E-01	369131.40	3758945.42	6.27E-02	369131.40	3758945.42	8.88E-03	369131.40	3758945.42	8.45E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.02E+00	369131.40	3758945.42	1.41E-01	369131.40	3758945.42	6.88E-02	369131.40	3758945.42	8.87E-03	369131.40	3758945.42	8.16E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.41E-01	369131.40	3758945.42	1.33E-01	369131.40	3758945.42	6.37E-02	369131.40	3758945.42	9.02E-03	369131.40	3758945.42	8.58E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.53E-01	369131.40	3758945.42	1.16E-01	369131.40	3758945.42	5.82E-02	369131.40	3758945.42	9.12E-03	369131.40	3758945.42	8.80E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.22E-01	369131.40	3758945.42	1.28E-01	369131.40	3758945.42	6.16E-02	369131.40	3758945.42	8.86E-03	369131.40	3758945.42	8.46E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.01E+00	369131.40	3758945.42	1.47E-01	369131.40	3758945.42	7.28E-02	369131.40	3758945.42	9.03E-03	369131.40	3758945.42	8.33E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.29E-01	369131.40	3758945.42	1.22E-01	369131.40	3758945.42	6.06E-02	369131.40	3758945.42	9.08E-03	369131.40	3758945.42	8.69E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.55E-01	369131.40	3758945.42	1.16E-01	369131.40	3758945.42	5.76E-02	369131.40	3758945.42	9.80E-03	369131.40	3758945.42	9.37E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.20E-01	369131.40	3758945.42	1.18E-01	369131.40	3758945.42	5.81E-02	369131.40	3758945.42	1.00E-02	369131.40	3758945.42	9.68E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.97E-01	369131.40	3758945.42	1.54E-01	369131.40	3758945.42	7.63E-02	369131.40	3758945.42	9.11E-03	369131.40	3758945.42	8.44E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.80E-01	369131.40	3758945.42	1.23E-01	369131.40	3758945.42	6.15E-02	369131.40	3758945.42	9.46E-03	369131.40	3758945.42	9.13E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.33E-01	369131.40	3758945.42	1.20E-01	369131.40	3758945.42	6.05E-02	369131.40	3758945.42	1.01E-02	369131.40	3758945.42	9.75E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.05E+00	369131.40	3758945.42	1.64E-01	369131.40	3758945.42	7.98E-02	369131.40	3758945.42	9.18E-03	369131.40	3758945.42	8.52E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.69E-01	369131.40	3758945.42	1.32E-01	369131.40	3758945.42	6.61E-02	369131.40	3758945.42	1.01E-02	369131.40	3758945.42	9.77E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.12E+00	369131.40	3758945.42	1.74E-01	369131.40	3758945.42	8.43E-02	369131.40	3758945.42	9.22E-03	369131.40	3758945.42	8.58E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.19E+00	369131.40	3758945.42	1.85E-01	369131.40	3758945.42	8.96E-02	369131.40	3758945.42	9.27E-03	369131.40	3758945.42	8.64E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.25E-01	369131.40	3758945.42	1.46E-01	369131.40	3758945.42	7.31E-02	369131.40	3758945.42	1.10E-02	369131.40	3758945.42	1.06E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.27E+00	369131.40	3758945.42	1.97E-01	369131.40	3758945.42	9.55E-02	369131.40	3758945.42	9.50E-03	369131.40	3758945.42	8.70E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.34E+00	369131.40	3758945.42	2.10E-01	369131.40	3758945.42	1.01E-01	369131.40	3758945.42	1.01E-02	369131.40	3758945.42	8.74E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.82E-01	369131.40	3758945.42	1.46E-01	369131.40	3758945.42	7.30E-02	369131.40	3758945.42	1.08E-02	369131.40	3758945.42	1.04E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.44E+00	369131.40	3758945.42	2.25E-01	369131.40	3758945.42	1.08E-01	369131.40	3758945.42	1.08E-02	369131.40	3758945.42	9.29E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.77E-01	369131.40	3758945.42	1.59E-01	369131.40	3758945.42	8.06E-02	369131.40	3758945.42	1.21E-02	369131.40	3758945.42	1.16E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.54E+00	369131.40	3758945.42	2.42E-01	369131.40	3758945.42	1.16E-01	369131.40	3758945.42	1.17E-02	369131.40	3758945.42	1.00E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.02E+00	369131.40	3758945.42	1.78E-01	369131.40	3758945.42	9.01E-02	369131.40	3758945.42	1.34E-02	369131.40	3758945.42	1.28E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.09E+00	369131.40	3758945.42	1.93E-01	369131.40	3758945.42	9.73E-02	369131.40	3758945.42	1.37E-02	369131.40	3758945.42	1.32E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.61E+00	369131.40	3758945.42	2.58E-01	369131.40	3758945.42	1.23E-01	369131.40	3758945.42	1.26E-02	369131.40	3758945.42	1.08E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.96E-01	369131.40	3758945.42	1.96E-01	369131.40	3758945.42	9.84E-02	369131.40	3758945.42	1.31E-02	369131.40	3758945.42	1.26E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.63E+00	369131.40	3758945.42	2.72E-01	369131.40	3758945.42	1.29E-01	369131.40	3758945.42	1.34E-02	369131.40	3758945.42	1.15E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.03E+00	369131.40	3758945.42	1.89E-01	369131.40	3758945.42	9.47E-02	369131.40	3758945.42	1.24E-02	369131.40	3758945.42	1.19E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.28E-01	369131.40	3758945.42	1.86E-01	369131.40	3758945.42	9.31E-02	369131.40	3758945.42	1.27E-02	369131.40	3758945.42	1.22E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.59E+00	369131.40	3758945.42	2.82E-01	369131.40	3758945.42	1.33E-01	369131.40	3758945.42	1.40E-02	369131.40	3758945.42	1.20E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.09E+00	369131.40	3758945.42	1.96E-01	369131.40	3758945.42	9.86E-02	369131.40	3758945.42	1.29E-02	369131.40	3758945.42	1.24E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.33E+00	369131.40	3758945.42	2.18E-01	369131.40	3758945.42	1.10E-01	369131.40	3758945.42	1.27E-02	369131.40	3758945.42	1.22E-02	369131.40	3758945.42	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 8 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	1.60E+00	369131.40	3758945.42	7.02E-01	369131.40	3758945.42	3.47E-01	369131.40	3758945.42	4.83E-02	369131.40	3758945.42	4.67E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.63E+00	369131.40	3758945.42	7.95E-01	369131.40	3758945.42	3.92E-01	369131.40	3758945.42	5.27E-02	369131.40	3758945.42	5.10E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.00E+00	369131.40	3758945.42	3.98E-01	369131.40	3758945.42	1.64E-01	369131.40	3758945.42	2.14E-02	369131.40	3758945.42	2.06E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.52E+00	369131.40	3758945.42	3.84E-01	369131.40	3758945.42	1.60E-01	369131.40	3758945.42	2.09E-02	369131.40	3758945.42	1.99E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.01E+00	369131.40	3758945.42	3.69E-01	369131.40	3758945.42	1.55E-01	369131.40	3758945.42	2.03E-02	369131.40	3758945.42	1.94E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.51E+00	369131.40	3758945.42	3.53E-01	369131.40	3758945.42	1.50E-01	369131.40	3758945.42	1.98E-02	369131.40	3758945.42	1.88E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.26E+00	369131.40	3758945.42	9.94E-01	369131.40	3758945.42	4.78E-01	369131.40	3758945.42	7.55E-02	369131.40	3758945.42	7.30E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.82E+00	369131.40	3758945.42	9.33E-01	369131.40	3758945.42	4.61E-01	369131.40	3758945.42	5.99E-02	369131.40	3758945.42	5.81E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.10E+01	369131.40	3758945.42	1.37E+00	369131.40	3758945.42	4.05E-01	369131.40	3758945.42	9.02E-02	369131.40	3758945.42	8.59E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.91E+00	369131.40	3758945.42	3.11E-01	369131.40	3758945.42	1.35E-01	369131.40	3758945.42	1.91E-02	369131.40	3758945.42	1.82E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.71E+00	369131.40	3758945.42	8.83E-01	369131.40	3758945.42	4.49E-01	369131.40	3758945.42	5.42E-02	369131.40	3758945.42	5.24E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.47E+00	369131.40	3758945.42	1.27E+00	369131.40	3758945.42	6.05E-01	369131.40	3758945.42	9.64E-02	369131.40	3758945.42	9.33E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.70E+00	369131.40	3758945.42	1.08E+00	369131.40	3758945.42	5.55E-01	369131.40	3758945.42	4.84E-02	369131.40	3758945.42	4.73E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.50E+00	369131.40	3758945.42	2.55E-01	369131.40	3758945.42	1.13E-01	369131.40	3758945.42	1.79E-02	369131.40	3758945.42	1.71E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.38E+01	369131.40	3758945.42	2.07E+00	369131.40	3758945.42	6.06E-01	369131.40	3758945.42	1.38E-01	369131.40	3758945.42	1.32E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.69E+00	369131.40	3758945.42	9.79E-01	369131.40	3758945.42	5.02E-01	369131.40	3758945.42	5.05E-02	369131.40

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 8 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	2.43E+00	369131.40	3758945.42	5.29E-01	369131.40	3758945.42	2.63E-01	369131.40	3758945.42	5.53E-02	369131.40	3758945.42	5.28E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.44E+00	369131.40	3758945.42	1.59E-01	369131.40	3758945.42	7.89E-02	369131.40	3758945.42	1.36E-02	369131.40	3758945.42	1.29E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.74E+00	369131.40	3758945.42	1.63E-01	369131.40	3758945.42	8.13E-02	369131.40	3758945.42	1.38E-02	369131.40	3758945.42	1.31E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.09E+00	369131.40	3758945.42	1.29E-01	369131.40	3758945.42	5.86E-02	369131.40	3758945.42	8.92E-03	369131.40	3758945.42	8.55E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.39E+00	369131.40	3758945.42	1.35E-01	369131.40	3758945.42	6.32E-02	369131.40	3758945.42	9.10E-03	369131.40	3758945.42	8.71E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.59E+00	369131.40	3758945.42	1.41E-01	369131.40	3758945.42	6.73E-02	369131.40	3758945.42	9.24E-03	369131.40	3758945.42	8.84E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.59E+00	369131.40	3758945.42	1.45E-01	369131.40	3758945.42	7.07E-02	369131.40	3758945.42	9.33E-03	369131.40	3758945.42	8.91E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.39E+00	369131.40	3758945.42	1.48E-01	369131.40	3758945.42	7.30E-02	369131.40	3758945.42	9.36E-03	369131.40	3758945.42	8.93E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.91E+00	369131.40	3758945.42	2.27E-01	369131.40	3758945.42	1.07E-01	369131.40	3758945.42	2.14E-02	369131.40	3758945.42	2.06E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.17E+00	369131.40	3758945.42	1.41E-01	369131.40	3758945.42	6.96E-02	369131.40	3758945.42	9.22E-03	369131.40	3758945.42	8.91E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.38E+00	369131.40	3758945.42	4.88E-01	369131.40	3758945.42	2.42E-01	369131.40	3758945.42	5.03E-02	369131.40	3758945.42	4.80E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.44E+00	369131.40	3758945.42	1.51E-01	369131.40	3758945.42	7.52E-02	369131.40	3758945.42	1.25E-02	369131.40	3758945.42	1.20E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.60E+00	369131.40	3758945.42	2.19E-01	369131.40	3758945.42	9.76E-02	369131.40	3758945.42	2.06E-02	369131.40	3758945.42	1.98E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.69E-01	369131.40	3758945.42	1.32E-01	369131.40	3758945.42	6.53E-02	369131.40	3758945.42	9.39E-03	369131.40	3758945.42	9.05E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.16E-01	369131.40	3758945.42	1.28E-01	369131.40	3758945.42	6.37E-02	369131.40	3758945.42	9.81E-03	369131.40	3758945.42	9.43E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.41E-01	369131.40	3758945.42	1.23E-01	369131.40	3758945.42	6.12E-02	369131.40	3758945.42	1.02E-02	369131.40	3758945.42	9.81E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.27E+00	369131.40	3758945.42	4.54E-01	369131.40	3758945.42	2.24E-01	369131.40	3758945.42	4.61E-02	369131.40	3758945.42	4.41E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.42E+00	369131.40	3758945.42	1.42E-01	369131.40	3758945.42	7.02E-02	369131.40	3758945.42	1.17E-02	369131.40	3758945.42	1.13E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.64E+00	369131.40	3758945.42	2.23E-01	369131.40	3758945.42	9.65E-02	369131.40	3758945.42	1.98E-02	369131.40	3758945.42	1.90E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.35E-01	369131.40	3758945.42	1.18E-01	369131.40	3758945.42	5.87E-02	369131.40	3758945.42	9.49E-03	369131.40	3758945.42	9.11E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.74E-01	369131.40	3758945.42	1.13E-01	369131.40	3758945.42	5.62E-02	369131.40	3758945.42	9.83E-03	369131.40	3758945.42	9.42E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.61E-01	369131.40	3758945.42	1.11E-01	369131.40	3758945.42	5.30E-02	369131.40	3758945.42	1.02E-02	369131.40	3758945.42	9.70E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.15E+00	369131.40	3758945.42	4.24E-01	369131.40	3758945.42	2.09E-01	369131.40	3758945.42	4.25E-02	369131.40	3758945.42	4.07E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.38E+00	369131.40	3758945.42	1.45E-01	369131.40	3758945.42	6.41E-02	369131.40	3758945.42	1.12E-02	369131.40	3758945.42	1.08E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.92E+00	369131.40	3758945.42	2.32E-01	369131.40	3758945.42	1.02E-01	369131.40	3758945.42	1.91E-02	369131.40	3758945.42	1.83E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.14E-01	369131.40	3758945.42	1.05E-01	369131.40	3758945.42	5.21E-02	369131.40	3758945.42	9.43E-03	369131.40	3758945.42	9.02E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.33E+00	369131.40	3758945.42	2.45E-01	369131.40	3758945.42	1.08E-01	369131.40	3758945.42	2.04E-02	369131.40	3758945.42	1.96E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.04E+00	369131.40	3758945.42	3.97E-01	369131.40	3758945.42	1.95E-01	369131.40	3758945.42	3.94E-02	369131.40	3758945.42	3.77E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.34E+00	369131.40	3758945.42	1.45E-01	369131.40	3758945.42	6.36E-02	369131.40	3758945.42	1.13E-02	369131.40	3758945.42	1.09E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.71E-01	369131.40	3758945.42	9.81E-02	369131.40	3758945.42	4.56E-02	369131.40	3758945.42	9.24E-03	369131.40	3758945.42	8.82E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.10E+00	369131.40	3758945.42	2.35E-01	369131.40	3758945.42	1.04E-01	369131.40	3758945.42	1.99E-02	369131.40	3758945.42	1.91E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.31E+00	369131.40	3758945.42	1.45E-01	369131.40	3758945.42	6.37E-02	369131.40	3758945.42	1.13E-02	369131.40	3758945.42	1.10E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.90E+00	369131.40	3758945.42	3.74E-01	369131.40	3758945.42	1.83E-01	369131.40	3758945.42	3.67E-02	369131.40	3758945.42	3.51E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.91E+00	369131.40	3758945.42	3.74E-01	369131.40	3758945.42	1.83E-01	369131.40	3758945.42	3.65E-02	369131.40	3758945.42	3.49E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.17E-01	369131.40	3758945.42	9.62E-02	369131.40	3758945.42	4.33E-02	369131.40	3758945.42	8.89E-03	369131.40	3758945.42	8.47E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.24E-01	369131.40	3758945.42	1.02E-01	369131.40	3758945.42	4.74E-02	369131.40	3758945.42	8.88E-03	369131.40	3758945.42	8.44E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.46E-01	369131.40	3758945.42	1.08E-01	369131.40	3758945.42	5.13E-02	369131.40	3758945.42	8.90E-03	369131.40	3758945.42	8.55E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.47E-01	369131.40	3758945.42	1.12E-01	369131.40	3758945.42	5.43E-02	369131.40	3758945.42	9.02E-03	369131.40	3758945.42	8.66E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.86E-01	369131.40	3758945.42	1.15E-01	369131.40	3758945.42	5.62E-02	369131.40	3758945.42	9.29E-03	369131.40	3758945.42	8.97E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.89E+00	369131.40	3758945.42	2.27E-01	369131.40	3758945.42	1.01E-01	369131.40	3758945.42	1.93E-02	369131.40	3758945.42	1.86E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.47E+00	369131.40	3758945.42	2.47E-01	369131.40	3758945.42	1.10E-01	369131.40	3758945.42	2.20E-02	369131.40	3758945.42	2.10E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.27E-01	369131.40	3758945.42	1.14E-01	369131.40	3758945.42	5.65E-02	369131.40	3758945.42	9.65E-03	369131.40	3758945.42	9.30E-03	369131.40	3758945.42	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 8 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	1.66E+00	369131.40	3758945.42	6.78E-01	369131.40	3758945.42	3.20E-01	369131.40	3758945.42	4.20E-02	369131.40	3758945.42	4.08E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.27E+00	369131.40	3758945.42	9.22E+00	369131.40	3758945.42	4.10E+00	369131.40	3758945.42	1.12E+00	369131.40	3758945.42	1.08E+00	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.89E+01	369131.40	3758945.42	2.25E+00	369131.40	3758945.42	1.06E+00	369131.40	3758945.42	1.91E-01	369131.40	3758945.42	1.85E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.76E+00	369131.40	3758945.42	3.93E+00	369131.40	3758945.42	1.82E+00	369131.40	3758945.42	3.77E-01	369131.40	3758945.42	3.65E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.36E+00	369131.40	3758945.42	1.80E-01	369131.40	3758945.42	7.44E-02	369131.40	3758945.42	1.26E-02	369131.40	3758945.42	1.21E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.74E+01	369131.40	3758945.42	9.99E-01	369131.40	3758945.42	4.66E-01	369131.40	3758945.42	8.28E-02	369131.40	3758945.42	7.95E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.89E+00	369131.40	3758945.42	6.53E-01	369131.40	3758945.42	3.06E-01	369131.40	3758945.42	4.67E-02	369131.40	3758945.42	4.53E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.28E+00	369131.40	3758945.42	1.85E-01	369131.40	3758945.42	7.77E-02	369131.40	3758945.42	1.33E-02	369131.40	3758945.42	1.28E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.61E+00	369131.40	3758945.42	3.35E+00	369131.40	3758945.42	1.52E+00	369131.40	3758945.42	3.55E-01	369131.40	3758945.42	3.43E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.31E+00	369131.40	3758945.42	7.03E-01	369131.40	3758945.42	3.33E-01	369131.40	3758945.42	5.08E-02	369131.40	3758945.42	4.91E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.05E+01	369131.40	3758945.42	8.29E-01	369131.40	3758945.42	3.91E-01	369131.40	3758945.42	7.32E-02	369131.40	3758945.42	7.09E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.08E+01	369131.40	3758945.42	2.54E+00	369131.40	3758945.42	1.17E+00	369131.40	3758945.42	2.46E-01	369131.40	3758945.42	2.38E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.24E+00	369131.40	3758945.42	1.88E-01	369131.40	3758945.42	8.01E-02	369131.40	3758945.42	1.39E-02	369131.40	3758945.42	1.34E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.43E+00	369131.40	3758945.42	8.77E-01	369131.40	3758945.42	4.16E-01	369131.40	3758945.42	5.80E-02	369131.40	3758945.42	5.63E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.33E+00	369131.40	3758945.42	7.76E-01	369131.40	3758945.42	3.62E-01	369131.40	3758945.42	5.23E-02	369131.40	3758945.42	5.00E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.60E+00	369131.40	3758945.42	3.01E+00	369131.40	3758945.42	1.38E+00	369131.40	3758945.42	3.12E-01	369131.40	3758945.42	3.01E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.94E+00	369131.40	3758945.42	2.39E+00	369131.40	3758945.42	1.09E+00	369131.40	3758945.42	2.54E-01	369131.40	3758945.42	2.45E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.16E+01	369131.40	3758945.42	1.96E+00	369131.40	3758945.42	9.14E-01	369131.40	3758945.42	1.90E-01	369131.40	3758945.42	1.84E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.75E+00	369131.40	3758945.42	1.89E+00	369131.40	3758945.42	8.99E-01	369131.40	3758945.42	2.47E-01	369131.40	3758945.42	2.32E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.96E+00	369131.40	3758945.42	1.67E+00	369131.40	3758945.42	8.62E-01	369131.40	3758945.42	2.45E-01	369131.40	3758945.42	2.30E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.30E+00	369131.40	3758945.42	1.89E-01	369131.40	3758945.42	8.13E-02	369131.40	3758945.42	1.44E-02	369131.40	3758945.42	1.38E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.12E+00	369131.40	3758945.42	1.48E+00	369131.40	3758945.42	6.99E-01	369131.40	3758945.42	1.72E-01	369131.40	3758945.42	1.61E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.26E+00	369131.40	3758945.42	1.29E+00	369131.40	3758945.42	6.14E-01	369131.40	3758945.42	1.08E-01	369131.40	3758945.42	1.02E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.12E+00	369131.40	3758945.42	1.09E+00	369131.40	3758945.42	5.20E-01	369131.40	3758945.42	7.61E-02	369131.40	3758945.42	7.34E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.16E+00	369131.40	3758945.42	9.14E-01	369131.40	3758945.42	4.34E-01	369131.40	3758945.42	6.69E-02	369131.40	3758945.42	6.44E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.56E+01	369131.40	3758945.42	6.74E-01	369131.40	3758945.42	3.17E-01	369131.40	3758945.42	5.82E-02	369131.40	3758945.42	5.60E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.44E+00	369131.40	3758945.42	2.33E+00	369131.40	3758945.42	1.07E+00	369131.40	3758945.42	2.30E-01	369131.40	3758945.42	2.22E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.97E+00	369131.40	3758945.42	1.90E+00	369131.40	3758945.42	8.79E-01	369131.40	3758945.42	1.77E-01	369131.40	3758945.42	1.72E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.44E+01	369131.40	3758945.42	2.04E+00	369131.40	3758945.42	9.32E-01	369131.40	3758945.42	8.60E-01	369131.40	3758945.42	8.06E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.43E+00	369131.40	3758945.42	1.85E-01	369131.40	3758945.42	8.06E-02	369131.40	3758945.42	1.48E-02	369131.40	3758945.42	1.42E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.21E+01	369131.40	3758945.42	6.10E-01	369131.40	3758945.42	3.05E-01	369131.40	3758945.42	4.93E-02	369131.40	3758945.42	4.74E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.57E+00	369131.40	3758945.42	1.59E+00	369131.40	3758945.42	7.39E-01	369131.40	3758945.42	1.78E-01	369131.40	3758945.42	1.70E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.74E+01	369131.40	3758945.42	2.58E+00	369131.40	3758945.42	1.19E+00	369131.40	3758945.42	8.53E-01	369131.40	3758945.42	8.00E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.65E+00	369131.40	3758945.42	1.39E+00	369131.40	3758945.42	6.52E-01	369131.40	3758945.42	1.59E-01	369131.40	3758945.42	1.52E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.28E+00	369131.40	3758945.42	1.76E-01	369131.40	3758945.42	7.73E-02	369131.40	3758945.42	1.47E-02	369131.40	3758945.42	1.41E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.60E+00	369131.40	3758945.42	5.78E-01	369131.40	3758945.42	2.54E-01	369131.40	3758945.42	4.67E-02	369131.40	3758945.42	4.50E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.65E+00	369131.40	3758945.42	1.07E+00	369131.40	3758945.42	4.93E-01	369131.40	3758945.42	1.10E-01	369131.40	3758945.42	1.05E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.24E+00	369131.40	3758945.42	1.21E+00	369131.40	3758945.42	5.65E-01	369131.40	3758945.42	1.18E-01	369131.40	3758945.42	1.13E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.72E+00	369131.40	3758945.42	1.25E+00	369131.40	3758945.42	5.84E-01	369131.40	3758945.42	1.18E-01	369131.40	3758945.42	1.12E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.01E+00	369131.40	3758945.42	1.40E+00	369131.40	3758945.42	6.60E-01	369131.40	3758945.42	1.96E-01	369131.40	3758945.42	1.83E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.34E+00	369131.40	3758945.42	1.56E+00	369131.40	3758945.42	7.76E-01	369131.40	3758945.42	3.19E-01	369131.40	3758945.42	2.99E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.59E+00	369131.40	3758945.42	2.28E+00	369131.40	3758945.42	1.11E+00	369131.40	3758945.42	5.56E-01	369131.40	3758945.42	5.22E-01	369131.40	3758945.42	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 8 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	3.27E+00	369131.40	3758945.42	2.57E-01	369131.40	3758945.42	1.15E-01	369131.40	3758945.42	2.39E-02	369131.40	3758945.42	2.29E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.47E-01	369131.40	3758945.42	1.22E-01	369131.40	3758945.42	5.50E-02	369131.40	3758945.42	9.83E-03	369131.40	3758945.42	9.45E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.45E+00	369131.40	3758945.42	2.59E-01	369131.40	3758945.42	1.16E-01	369131.40	3758945.42	2.51E-02	369131.40	3758945.42	2.40E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.84E+00	369131.40	3758945.42	2.67E-01	369131.40	3758945.42	1.17E-01	369131.40	3758945.42	2.58E-02	369131.40	3758945.42	2.46E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.19E+00	369131.40	3758945.42	1.36E-01	369131.40	3758945.42	5.96E-02	369131.40	3758945.42	1.06E-02	369131.40	3758945.42	1.03E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.76E+00	369131.40	3758945.42	3.01E-01	369131.40	3758945.42	1.36E-01	369131.40	3758945.42	2.91E-02	369131.40	3758945.42	2.79E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.57E+00	369131.40	3758945.42	3.25E-01	369131.40	3758945.42	1.50E-01	369131.40	3758945.42	3.27E-02	369131.40	3758945.42	3.13E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.28E+00	369131.40	3758945.42	1.43E-01	369131.40	3758945.42	6.32E-02	369131.40	3758945.42	1.13E-02	369131.40	3758945.42	1.10E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.70E+00	369131.40	3758945.42	3.51E-01	369131.40	3758945.42	1.69E-01	369131.40	3758945.42	3.49E-02	369131.40	3758945.42	3.34E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.66E+00	369131.40	3758945.42	3.46E-01	369131.40	3758945.42	1.67E-01	369131.40	3758945.42	3.44E-02	369131.40	3758945.42	3.29E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.79E+00	369131.40	3758945.42	3.56E-01	369131.40	3758945.42	1.74E-01	369131.40	3758945.42	3.44E-02	369131.40	3758945.42	3.29E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.41E-01	369131.40	3758945.42	6.99E-02	369131.40	3758945.42	3.22E-02	369131.40	3758945.42	4.67E-03	369131.40	3758945.42	4.50E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.65E-01	369131.40	3758945.42	2.23E-02	369131.40	3758945.42	9.87E-03	369131.40	3758945.42	1.95E-03	369131.40	3758945.42	1.87E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.32E+00	369131.40	3758945.42	7.45E-01	369131.40	3758945.42	3.81E-01	369131.40	3758945.42	3.78E-02	369131.40	3758945.42	3.69E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.10E+00	369131.40	3758945.42	5.06E-01	369131.40	3758945.42	2.47E-01	369131.40	3758945.42	3.48E-02	369131.40	3758945.42	3.37E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.12E+00	369131.40	3758945.42	1.39E-01	369131.40	3758945.42	6.07E-02	369131.40	3758945.42	1.08E-02	369131.40

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 8 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	4.61E-01	369131.40	3758945.42	9.85E-02	369131.40	3758945.42	4.42E-02	369131.40	3758945.42	8.07E-03	369131.40	3758945.42	7.77E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.46E-01	369131.40	3758945.42	5.95E-02	369131.40	3758945.42	2.63E-02	369131.40	3758945.42	6.70E-03	369131.40	3758945.42	6.37E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.19E-01	369131.40	3758945.42	3.03E-02	369131.40	3758945.42	1.33E-02	369131.40	3758945.42	2.19E-03	369131.40	3758945.42	2.12E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.22E-01	369131.40	3758945.42	5.42E-02	369131.40	3758945.42	2.40E-02	369131.40	3758945.42	3.84E-03	369131.40	3758945.42	3.69E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.09E-01	369131.40	3758945.42	5.94E-02	369131.40	3758945.42	2.61E-02	369131.40	3758945.42	4.94E-03	369131.40	3758945.42	4.75E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.20E-01	369131.40	3758945.42	7.92E-02	369131.40	3758945.42	3.43E-02	369131.40	3758945.42	6.68E-03	369131.40	3758945.42	6.41E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.54E+00	369131.40	3758945.42	1.30E-01	369131.40	3758945.42	5.44E-02	369131.40	3758945.42	1.13E-02	369131.40	3758945.42	1.08E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.81E+00	369131.40	3758945.42	1.59E-01	369131.40	3758945.42	6.51E-02	369131.40	3758945.42	1.59E-02	369131.40	3758945.42	1.51E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.52E-01	369131.40	3758945.42	9.26E-02	369131.40	3758945.42	4.16E-02	369131.40	3758945.42	8.63E-03	369131.40	3758945.42	8.28E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.16E-01	369131.40	3758945.42	6.79E-02	369131.40	3758945.42	2.93E-02	369131.40	3758945.42	6.65E-03	369131.40	3758945.42	6.38E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.75E-01	369131.40	3758945.42	2.42E-02	369131.40	3758945.42	1.05E-02	369131.40	3758945.42	2.30E-03	369131.40	3758945.42	2.21E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.69E-01	369131.40	3758945.42	2.50E-02	369131.40	3758945.42	1.11E-02	369131.40	3758945.42	3.07E-03	369131.40	3758945.42	2.92E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.27E-01	369131.40	3758945.42	5.04E-02	369131.40	3758945.42	2.22E-02	369131.40	3758945.42	4.52E-03	369131.40	3758945.42	4.34E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.52E-01	369131.40	3758945.42	3.83E-02	369131.40	3758945.42	1.66E-02	369131.40	3758945.42	2.68E-03	369131.40	3758945.42	2.58E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.30E-01	369131.40	3758945.42	4.26E-02	369131.40	3758945.42	1.88E-02	369131.40	3758945.42	4.01E-03	369131.40	3758945.42	3.84E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.39E-01	369131.40	3758945.42	6.49E-02	369131.40	3758945.42	2.88E-02	369131.40	3758945.42	5.80E-03	369131.40	3758945.42	5.57E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.54E-01	369131.40	3758945.42	1.65E-01	369131.40	3758945.42	7.43E-02	369131.40	3758945.42	1.39E-02	369131.40	3758945.42	1.32E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.80E-01	369131.40	3758945.42	6.38E-02	369131.40	3758945.42	2.83E-02	369131.40	3758945.42	5.94E-03	369131.40	3758945.42	5.70E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.38E-01	369131.40	3758945.42	5.27E-02	369131.40	3758945.42	2.40E-02	369131.40	3758945.42	4.99E-03	369131.40	3758945.42	4.77E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.96E-01	369131.40	3758945.42	3.27E-02	369131.40	3758945.42	1.50E-02	369131.40	3758945.42	2.49E-03	369131.40	3758945.42	2.39E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.13E-01	369131.40	3758945.42	1.93E-02	369131.40	3758945.42	8.48E-03	369131.40	3758945.42	1.85E-03	369131.40	3758945.42	1.77E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.67E-01	369131.40	3758945.42	5.76E-02	369131.40	3758945.42	2.60E-02	369131.40	3758945.42	5.65E-03	369131.40	3758945.42	5.39E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.81E-01	369131.40	3758945.42	3.01E-02	369131.40	3758945.42	1.33E-02	369131.40	3758945.42	2.81E-03	369131.40	3758945.42	2.70E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.96E-01	369131.40	3758945.42	4.97E-02	369131.40	3758945.42	2.23E-02	369131.40	3758945.42	4.56E-03	369131.40	3758945.42	4.37E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.56E-01	369131.40	3758945.42	1.06E-01	369131.40	3758945.42	5.29E-02	369131.40	3758945.42	8.91E-03	369131.40	3758945.42	8.50E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.34E-01	369131.40	3758945.42	8.50E-02	369131.40	3758945.42	3.70E-02	369131.40	3758945.42	8.22E-03	369131.40	3758945.42	7.86E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.25E-01	369131.40	3758945.42	6.24E-02	369131.40	3758945.42	2.89E-02	369131.40	3758945.42	5.62E-03	369131.40	3758945.42	5.40E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.37E-01	369131.40	3758945.42	1.17E-01	369131.40	3758945.42	5.52E-02	369131.40	3758945.42	7.96E-03	369131.40	3758945.42	7.57E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.83E-01	369131.40	3758945.42	4.99E-02	369131.40	3758945.42	2.22E-02	369131.40	3758945.42	4.51E-03	369131.40	3758945.42	4.34E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.49E-01	369131.40	3758945.42	2.27E-02	369131.40	3758945.42	1.01E-02	369131.40	3758945.42	2.01E-03	369131.40	3758945.42	1.93E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.44E-01	369131.40	3758945.42	2.22E-02	369131.40	3758945.42	9.77E-03	369131.40	3758945.42	1.84E-03	369131.40	3758945.42	1.76E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.36E-01	369131.40	3758945.42	2.29E-02	369131.40	3758945.42	1.01E-02	369131.40	3758945.42	2.11E-03	369131.40	3758945.42	2.02E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.75E-01	369131.40	3758945.42	3.08E-02	369131.40	3758945.42	1.27E-02	369131.40	3758945.42	2.51E-03	369131.40	3758945.42	2.41E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.55E-01	369131.40	3758945.42	4.14E-02	369131.40	3758945.42	1.93E-02	369131.40	3758945.42	4.11E-03	369131.40	3758945.42	3.93E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.65E-01	369131.40	3758945.42	5.72E-02	369131.40	3758945.42	2.50E-02	369131.40	3758945.42	5.02E-03	369131.40	3758945.42	4.80E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.39E-01	369131.40	3758945.42	6.68E-02	369131.40	3758945.42	3.09E-02	369131.40	3758945.42	6.35E-03	369131.40	3758945.42	6.10E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.30E-01	369131.40	3758945.42	6.54E-02	369131.40	3758945.42	2.91E-02	369131.40	3758945.42	6.08E-03	369131.40	3758945.42	5.81E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.83E-01	369131.40	3758945.42	6.93E-02	369131.40	3758945.42	2.91E-02	369131.40	3758945.42	6.03E-03	369131.40	3758945.42	5.74E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.12E-01	369131.40	3758945.42	6.46E-02	369131.40	3758945.42	3.05E-02	369131.40	3758945.42	4.19E-03	369131.40	3758945.42	3.96E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.81E-01	369131.40	3758945.42	3.11E-02	369131.40	3758945.42	1.39E-02	369131.40	3758945.42	2.87E-03	369131.40	3758945.42	2.75E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.81E-01	369131.40	3758945.42	2.88E-02	369131.40	3758945.42	1.26E-02	369131.40	3758945.42	2.65E-03	369131.40	3758945.42	2.54E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.65E-01	369131.40	3758945.42	2.74E-02	369131.40	3758945.42	1.22E-02	369131.40	3758945.42	2.57E-03	369131.40	3758945.42	2.46E-03	369131.40	3758945.42	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 8 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	8.53E-01	369131.40	3758945.42	1.12E-01	369131.40	3758945.42	5.47E-02	369131.40	3758945.42	8.99E-03	369131.40	3758945.42	8.55E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.72E-01	369131.40	3758945.42	1.03E-01	369131.40	3758945.42	5.05E-02	369131.40	3758945.42	7.56E-03	369131.40	3758945.42	7.23E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.41E-01	369131.40	3758945.42	1.25E-01	369131.40	3758945.42	6.28E-02	369131.40	3758945.42	1.01E-02	369131.40	3758945.42	9.71E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.32E-01	369131.40	3758945.42	4.29E-02	369131.40	3758945.42	1.98E-02	369131.40	3758945.42	3.31E-03	369131.40	3758945.42	3.18E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.58E-01	369131.40	3758945.42	3.79E-02	369131.40	3758945.42	1.71E-02	369131.40	3758945.42	3.34E-03	369131.40	3758945.42	3.20E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.06E-01	369131.40	3758945.42	1.54E-02	369131.40	3758945.42	6.88E-03	369131.40	3758945.42	1.26E-03	369131.40	3758945.42	1.22E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.42E-01	369131.40	3758945.42	1.46E-01	369131.40	3758945.42	7.35E-02	369131.40	3758945.42	1.07E-02	369131.40	3758945.42	1.02E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.04E-01	369131.40	3758945.42	1.48E-01	369131.40	3758945.42	7.40E-02	369131.40	3758945.42	1.10E-02	369131.40	3758945.42	1.05E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.04E+00	369131.40	3758945.42	1.98E-01	369131.40	3758945.42	9.96E-02	369131.40	3758945.42	1.30E-02	369131.40	3758945.42	1.25E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.17E+00	369131.40	3758945.42	1.95E-01	369131.40	3758945.42	9.80E-02	369131.40	3758945.42	1.24E-02	369131.40	3758945.42	1.19E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.87E+00	369131.40	3758945.42	2.10E-01	369131.40	3758945.42	1.06E-01	369131.40	3758945.42	1.47E-02	369131.40	3758945.42	1.42E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.05E+00	369131.40	3758945.42	9.99E-02	369131.40	3758945.42	4.31E-02	369131.40	3758945.42	7.05E-03	369131.40	3758945.42	6.64E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.15E-01	369131.40	3758945.42	1.51E-01	369131.40	3758945.42	7.44E-02	369131.40	3758945.42	7.22E-03	369131.40	3758945.42	6.96E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.90E-01	369131.40	3758945.42	4.77E-02	369131.40	3758945.42	2.19E-02	369131.40	3758945.42	4.41E-03	369131.40	3758945.42	4.24E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.57E-01	369131.40	3758945.42	2.19E-02	369131.40	3758945.42	1.02E-02	369131.40	3758945.42	2.35E-03	369131.40	3758945.42	2.25E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.22E-01	369131.40	3758945.42	1.76E-02	369131.40	3758945.42	8.01E-03	369131.40	3758945.42	1.42E-03	369131.40	3758945.42	1.37E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.18E-01	369131.40	3758945.42	1.46E-02	369131.40	3758945.42	6.56E-03	369131.40	3758945.42	1.27E-03	369131.40	3758945.42	1.22E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.27E+00	369131.40	3758945.42	1.57E-01	369131.40	3758945.42	7.41E-02	369131.40	3758945.42	1.32E-02	369131.40	3758945.42	1.27E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.57E-01	369131.40	3758945.42	1.90E-01	369131.40	3758945.42	9.45E-02	369131.40	3758945.42	1.45E-02	369131.40	3758945.42	1.40E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.20E+00	369131.40	3758945.42	2.03E-01	369131.40	3758945.42	1.01E-01	369131.40	3758945.42	1.63E-02	369131.40	3758945.42	1.57E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.48E+00	369131.40	3758945.42	2.13E-01	369131.40	3758945.42	1.05E-01	369131.40	3758945.42	1.72E-02	369131.40	3758945.42	1.66E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.60E+00	369131.40	3758945.42	1.70E-01	369131.40	3758945.42	8.57E-02	369131.40	3758945.42	1.10E-02	369131.40	3758945.42	1.05E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.63E+00	369131.40	3758945.42	1.62E-01	369131.40	3758945.42	8.18E-02	369131.40	3758945.42	1.15E-02	369131.40	3758945.42	1.11E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.21E+00	369131.40	3758945.42	1.55E-01	369131.40	3758945.42	7.49E-02	369131.40	3758945.42	1.16E-02	369131.40	3758945.42	1.11E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.94E+00	369131.40	3758945.42	1.84E-01	369131.40	3758945.42	9.06E-02	369131.40	3758945.42	1.67E-02	369131.40	3758945.42	1.61E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.31E+00	369131.40	3758945.42	1.24E-01	369131.40	3758945.42	6.23E-02	369131.40	3758945.42	8.75E-03	369131.40	3758945.42	8.40E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.33E+00	369131.40	3758945.42	1.64E-01	369131.40	3758945.42	8.24E-02	369131.40	3758945.42	1.38E-02	369131.40	3758945.42	1.33E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.91E-01	369131.40	3758945.42	1.43E-01	369131.40	3758945.42	6.61E-02	369131.40	3758945.42	1.11E-02	369131.40	3758945.42	1.05E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.23E-01	369131.40	3758945.42	2.92E-02	369131.40	3758945.42	1.33E-02	369131.40	3758945.42	2.37E-03	369131.40	3758945.42	2.27E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.61E-01	369131.40	3758945.42	2.53E-02	369131.40	3758945.42	1.13E-02	369131.40	3758945.42	2.03E-03	369131.40	3758945.42	1.96E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.05E-01	369131.40	3758945.42	1.57E-02	369131.40	3758945.42	7.00E-03	369131.40	3758945.42	1.34E-03	369131.40	3758945.42	1.29E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.78E+00	369131.40	3758945.42	2.47E-01	369131.40	3758945.42	1.25E-01	369131.40	3758945.42	1.79E-02	369131.40	3758945.42	1.72E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.56E+00	369131.40	3758945.42	2.35E-01	369131.40	3758945.42	1.19E-01	369131.40	3758945.42	1.85E-02	369131.40	3758945.42	1.77E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.25E+00	369131.40	3758945.42	3.22E-01	369131.40	3758945.42	1.61E-01	369131.40	3758945.42	1.63E-02	369131.40	3758945.42	1.56E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.14E-01	369131.40	3758945.42	4.28E-01	369131.40	3758945.42	2.18E-01	369131.40	3758945.42	2.29E-02	369131.40	3758945.42	2.22E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.96E-01	369131.40	3758945.42	4.17E-01	369131.40	3758945.42	2.12E-01	369131.40	3758945.42	2.44E-02	369131.40	3758945.42	2.37E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.72E-01	369131.40	3758945.42	1.09E-01	369131.40	3758945.42	5.27E-02	369131.40	3758945.42	8.41E-03	369131.40	3758945.42	8.09E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.44E-01	369131.40	3758945.42	6.27E-02	369131.40	3758945.42	2.94E-02	369131.40	3758945.42	4.57E-03	369131.40	3758945.42	4.43E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.73E-01	369131.40	3758945.42	2.58E-02	369131.40	3758945.42	1.14E-02	369131.40	3758945.42	2.25E-03	369131.40	3758945.42	2.16E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.39E-01	369131.40	3758945.42	2.13E-02	369131.40	3758945.42	9.47E-03	369131.40	3758945.42	1.75E-03	369131.40	3758945.42	1.68E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.14E-01	369131.40	3758945.42	1.75E-02	369131.40	3758945.42	7.82E-03	369131.40	3758945.42	1.51E-03	369131.40	3758945.42	1.45E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.12E+00	369131.40	3758945.42	7.79E-01	369131.40	3758945.42	3.82E-01	369131.40	3758945.42	5.23E-02	369131.40	3758945.42	5.08E-02	369131.40	3758945.42	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 8 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	1.13E-01	369131.40	3758945.42	1.89E-02	369131.40	3758945.42	8.39E-03	369131.40	3758945.42	1.69E-03	369131.40	3758945.42	1.62E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.30E-01	369131.40	3758945.42	3.53E-02	369131.40	3758945.42	1.50E-02	369131.40	3758945.42	2.92E-03	369131.40	3758945.42	2.81E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.29E-01	369131.40	3758945.42	2.80E-02	369131.40	3758945.42	1.30E-02	369131.40	3758945.42	2.59E-03	369131.40	3758945.42	2.48E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.78E-01	369131.40	3758945.42	4.78E-02	369131.40	3758945.42	2.09E-02	369131.40	3758945.42	4.17E-03	369131.40	3758945.42	3.99E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.57E-01	369131.40	3758945.42	1.04E-01	369131.40	3758945.42	4.95E-02	369131.40	3758945.42	8.08E-03	369131.40	3758945.42	7.69E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.46E-01	369131.40	3758945.42	6.58E-02	369131.40	3758945.42	3.04E-02	369131.40	3758945.42	6.11E-03	369131.40	3758945.42	5.85E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.14E-01	369131.40	3758945.42	5.82E-02	369131.40	3758945.42	2.58E-02	369131.40	3758945.42	5.38E-03	369131.40	3758945.42	5.15E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.12E-01	369131.40	3758945.42	7.35E-02	369131.40	3758945.42	3.23E-02	369131.40	3758945.42	5.97E-03	369131.40	3758945.42	5.67E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.62E-01	369131.40	3758945.42	4.05E-02	369131.40	3758945.42	1.94E-02	369131.40	3758945.42	3.11E-03	369131.40	3758945.42	2.98E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.56E-01	369131.40	3758945.42	2.70E-02	369131.40	3758945.42	1.20E-02	369131.40	3758945.42	2.42E-03	369131.40	3758945.42	2.32E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.47E-01	369131.40	3758945.42	4.88E-02	369131.40	3758945.42	2.31E-02	369131.40	3758945.42	4.59E-03	369131.40	3758945.42	4.42E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.48E-01	369131.40	3758945.42	2.08E-02	369131.40	3758945.42	9.68E-03	369131.40	3758945.42	1.87E-03	369131.40	3758945.42	1.80E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.48E-01	369131.40	3758945.42	3.63E-02	369131.40	3758945.42	1.61E-02	369131.40	3758945.42	3.16E-03	369131.40	3758945.42	3.04E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.91E-01	369131.40	3758945.42	2.38E-02	369131.40	3758945.42	1.08E-02	369131.40	3758945.42	2.12E-03	369131.40	3758945.42	2.03E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.55E-01	369131.40	3758945.42	4.01E-02	369131.40	3758945.42	1.75E-02	369131.40	3758945.42	3.49E-03	369131.40	3758945.42	3.34E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.79E-01	369131.40	3758945.42	5.39E-02	369131.40	3758945.42	2.38E-02	369131.40	3758945.42	4.93E-03	369131.40

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 8 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	1.55E-01	369131.40	3758945.42	2.11E-02	369131.40	3758945.42	9.84E-03	369131.40	3758945.42	2.11E-03	369131.40	3758945.42	2.01E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.51E-01	369131.40	3758945.42	2.17E-02	369131.40	3758945.42	1.04E-02	369131.40	3758945.42	2.11E-03	369131.40	3758945.42	2.01E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.16E+00	369131.40	3758945.42	1.19E-01	369131.40	3758945.42	5.18E-02	369131.40	3758945.42	7.93E-03	369131.40	3758945.42	7.28E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.74E-01	369131.40	3758945.42	2.20E-02	369131.40	3758945.42	9.96E-03	369131.40	3758945.42	1.83E-03	369131.40	3758945.42	1.76E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.15E+00	369131.40	3758945.42	1.11E-01	369131.40	3758945.42	5.07E-02	369131.40	3758945.42	7.82E-03	369131.40	3758945.42	7.52E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.21E-01	369131.40	3758945.42	3.06E-02	369131.40	3758945.42	1.42E-02	369131.40	3758945.42	3.41E-03	369131.40	3758945.42	3.26E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.10E-01	369131.40	3758945.42	1.55E-02	369131.40	3758945.42	6.86E-03	369131.40	3758945.42	1.30E-03	369131.40	3758945.42	1.25E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.07E+00	369131.40	3758945.42	1.34E-01	369131.40	3758945.42	6.76E-02	369131.40	3758945.42	8.54E-03	369131.40	3758945.42	8.18E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.76E-01	369131.40	3758945.42	1.15E-01	369131.40	3758945.42	5.53E-02	369131.40	3758945.42	8.79E-03	369131.40	3758945.42	8.47E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.24E-01	369131.40	3758945.42	8.28E-02	369131.40	3758945.42	3.98E-02	369131.40	3758945.42	8.72E-03	369131.40	3758945.42	8.36E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.22E+00	369131.40	3758945.42	1.21E-01	369131.40	3758945.42	6.01E-02	369131.40	3758945.42	9.28E-03	369131.40	3758945.42	8.94E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.72E-01	369131.40	3758945.42	2.47E-01	369131.40	3758945.42	1.25E-01	369131.40	3758945.42	1.46E-02	369131.40	3758945.42	1.41E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.23E-01	369131.40	3758945.42	1.15E-01	369131.40	3758945.42	5.53E-02	369131.40	3758945.42	1.08E-02	369131.40	3758945.42	1.04E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.53E+00	369131.40	3758945.42	1.35E-01	369131.40	3758945.42	5.72E-02	369131.40	3758945.42	9.09E-03	369131.40	3758945.42	8.74E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.84E-01	369131.40	3758945.42	1.35E-01	369131.40	3758945.42	6.53E-02	369131.40	3758945.42	1.17E-02	369131.40	3758945.42	1.13E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.79E-01	369131.40	3758945.42	2.69E-02	369131.40	3758945.42	1.20E-02	369131.40	3758945.42	2.32E-03	369131.40	3758945.42	2.23E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.81E-01	369131.40	3758945.42	2.74E-02	369131.40	3758945.42	1.23E-02	369131.40	3758945.42	2.35E-03	369131.40	3758945.42	2.27E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.41E-01	369131.40	3758945.42	1.85E-02	369131.40	3758945.42	8.18E-03	369131.40	3758945.42	1.55E-03	369131.40	3758945.42	1.49E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.32E-01	369131.40	3758945.42	1.90E-02	369131.40	3758945.42	8.39E-03	369131.40	3758945.42	1.56E-03	369131.40	3758945.42	1.50E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.57E-01	369131.40	3758945.42	1.21E-01	369131.40	3758945.42	5.85E-02	369131.40	3758945.42	9.38E-03	369131.40	3758945.42	9.04E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.26E+00	369131.40	3758945.42	6.70E-01	369131.40	3758945.42	3.28E-01	369131.40	3758945.42	4.54E-02	369131.40	3758945.42	4.40E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.80E-01	369131.40	3758945.42	3.84E-02	369131.40	3758945.42	1.67E-02	369131.40	3758945.42	2.86E-03	369131.40	3758945.42	2.75E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.44E-01	369131.40	3758945.42	1.95E-01	369131.40	3758945.42	8.91E-02	369131.40	3758945.42	1.51E-02	369131.40	3758945.42	1.45E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.93E-01	369131.40	3758945.42	2.46E-01	369131.40	3758945.42	1.13E-01	369131.40	3758945.42	2.38E-02	369131.40	3758945.42	2.28E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.71E-01	369131.40	3758945.42	1.62E-01	369131.40	3758945.42	7.24E-02	369131.40	3758945.42	1.60E-02	369131.40	3758945.42	1.53E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.30E-01	369131.40	3758945.42	9.43E-02	369131.40	3758945.42	4.21E-02	369131.40	3758945.42	7.37E-03	369131.40	3758945.42	7.11E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.96E-01	369131.40	3758945.42	8.18E-02	369131.40	3758945.42	3.62E-02	369131.40	3758945.42	9.25E-03	369131.40	3758945.42	8.81E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.95E-01	369131.40	3758945.42	1.22E-01	369131.40	3758945.42	5.51E-02	369131.40	3758945.42	1.13E-02	369131.40	3758945.42	1.09E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.42E+00	369131.40	3758945.42	2.17E-01	369131.40	3758945.42	1.05E-01	369131.40	3758945.42	2.21E-02	369131.40	3758945.42	2.11E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.40E-01	369131.40	3758945.42	9.06E-02	369131.40	3758945.42	4.39E-02	369131.40	3758945.42	7.40E-03	369131.40	3758945.42	7.12E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.36E-01	369131.40	3758945.42	9.43E-02	369131.40	3758945.42	4.08E-02	369131.40	3758945.42	7.42E-03	369131.40	3758945.42	7.11E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.37E-01	369131.40	3758945.42	7.16E-02	369131.40	3758945.42	3.16E-02	369131.40	3758945.42	4.42E-03	369131.40	3758945.42	4.26E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.20E+00	369131.40	3758945.42	1.78E-01	369131.40	3758945.42	8.28E-02	369131.40	3758945.42	1.78E-02	369131.40	3758945.42	1.70E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.42E-01	369131.40	3758945.42	1.88E-01	369131.40	3758945.42	8.48E-02	369131.40	3758945.42	1.86E-02	369131.40	3758945.42	1.78E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.78E-01	369131.40	3758945.42	1.77E-01	369131.40	3758945.42	7.89E-02	369131.40	3758945.42	1.53E-02	369131.40	3758945.42	1.47E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.87E-01	369131.40	3758945.42	1.56E-01	369131.40	3758945.42	7.04E-02	369131.40	3758945.42	1.58E-02	369131.40	3758945.42	1.51E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.71E-01	369131.40	3758945.42	1.56E-01	369131.40	3758945.42	7.03E-02	369131.40	3758945.42	1.58E-02	369131.40	3758945.42	1.51E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.59E-01	369131.40	3758945.42	2.49E-02	369131.40	3758945.42	1.09E-02	369131.40	3758945.42	2.41E-03	369131.40	3758945.42	2.31E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.40E-01	369131.40	3758945.42	2.76E-02	369131.40	3758945.42	1.22E-02	369131.40	3758945.42	2.88E-03	369131.40	3758945.42	2.75E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.59E-01	369131.40	3758945.42	1.59E-01	369131.40	3758945.42	7.62E-02	369131.40	3758945.42	1.03E-02	369131.40	3758945.42	9.84E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.49E-01	369131.40	3758945.42	1.65E-01	369131.40	3758945.42	8.19E-02	369131.40	3758945.42	1.41E-02	369131.40	3758945.42	1.34E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.18E-01	369131.40	3758945.42	1.97E-02	369131.40	3758945.42	8.68E-03	369131.40	3758945.42	1.87E-03	369131.40	3758945.42	1.79E-03	369131.40	3758945.42	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 8 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	6.32E-02	369131.40	3758945.42	1.16E-02	369131.40	3758945.42	5.26E-03	369131.40	3758945.42	1.05E-03	369131.40	3758945.42	1.00E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.28E-01	369131.40	3758945.42	1.79E-02	369131.40	3758945.42	7.67E-03	369131.40	3758945.42	1.55E-03	369131.40	3758945.42	1.49E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.09E-02	369131.40	3758945.42	1.67E-02	369131.40	3758945.42	7.46E-03	369131.40	3758945.42	1.54E-03	369131.40	3758945.42	1.48E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.38E-01	369131.40	3758945.42	1.67E-02	369131.40	3758945.42	6.98E-03	369131.40	3758945.42	1.44E-03	369131.40	3758945.42	1.39E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.62E-01	369131.40	3758945.42	2.38E-02	369131.40	3758945.42	1.04E-02	369131.40	3758945.42	2.06E-03	369131.40	3758945.42	1.97E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.60E-01	369131.40	3758945.42	4.59E-02	369131.40	3758945.42	1.95E-02	369131.40	3758945.42	3.21E-03	369131.40	3758945.42	3.03E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.42E-01	369131.40	3758945.42	4.04E-02	369131.40	3758945.42	1.94E-02	369131.40	3758945.42	3.16E-03	369131.40	3758945.42	3.01E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.87E-01	369131.40	3758945.42	3.61E-02	369131.40	3758945.42	1.62E-02	369131.40	3758945.42	3.28E-03	369131.40	3758945.42	3.13E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.94E-01	369131.40	3758945.42	2.85E-02	369131.40	3758945.42	1.28E-02	369131.40	3758945.42	2.63E-03	369131.40	3758945.42	2.52E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.01E-01	369131.40	3758945.42	3.35E-02	369131.40	3758945.42	1.51E-02	369131.40	3758945.42	2.99E-03	369131.40	3758945.42	2.86E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.61E-01	369131.40	3758945.42	2.71E-02	369131.40	3758945.42	1.23E-02	369131.40	3758945.42	2.37E-03	369131.40	3758945.42	2.27E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.76E-01	369131.40	3758945.42	2.42E-02	369131.40	3758945.42	1.08E-02	369131.40	3758945.42	2.24E-03	369131.40	3758945.42	2.15E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.86E-02	369131.40	3758945.42	8.86E-03	369131.40	3758945.42	3.71E-03	369131.40	3758945.42	7.60E-04	369131.40	3758945.42	7.30E-04	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.03E-01	369131.40	3758945.42	1.46E-02	369131.40	3758945.42	6.35E-03	369131.40	3758945.42	1.30E-03	369131.40	3758945.42	1.25E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.12E-02	369131.40	3758945.42	1.42E-02	369131.40	3758945.42	6.34E-03	369131.40	3758945.42	1.31E-03	369131.40	3758945.42	1.26E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.17E-01	369131.40	3758945.42	1.43E-02	369131.40	3758945.42	6.17E-03	369131.40	3758945.42	1.27E-03	369131.40	3758945.42	1.22E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.43E-01	369131.40	3758945.42	2.08E-02	369131.40	3758945.42	9.05E-03	369131.40	3758945.42	1.81E-03	369131.40	3758945.42	1.73E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.12E-01	369131.40	3758945.42	3.26E-02	369131.40	3758945.42	1.43E-02	369131.40	3758945.42	2.97E-03	369131.40	3758945.42	2.84E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.49E-01	369131.40	3758945.42	2.96E-02	369131.40	3758945.42	1.31E-02	369131.40	3758945.42	2.66E-03	369131.40	3758945.42	2.54E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.34E-01	369131.40	3758945.42	2.17E-02	369131.40	3758945.42	9.79E-03	369131.40	3758945.42	1.96E-03	369131.40	3758945.42	1.89E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.68E-02	369131.40	3758945.42	9.61E-03	369131.40	3758945.42	4.08E-03	369131.40	3758945.42	8.30E-04	369131.40	3758945.42	7.90E-04	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.74E-02	369131.40	3758945.42	1.35E-02	369131.40	3758945.42	5.93E-03	369131.40	3758945.42	1.21E-03	369131.40	3758945.42	1.16E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.84E-02	369131.40	3758945.42	1.21E-02	369131.40	3758945.42	5.41E-03	369131.40	3758945.42	1.11E-03	369131.40	3758945.42	1.07E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.05E-01	369131.40	3758945.42	1.32E-02	369131.40	3758945.42	5.70E-03	369131.40	3758945.42	1.17E-03	369131.40	3758945.42	1.12E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.27E-01	369131.40	3758945.42	1.78E-02	369131.40	3758945.42	7.70E-03	369131.40	3758945.42	1.60E-03	369131.40	3758945.42	1.53E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.00E-01	369131.40	3758945.42	2.97E-02	369131.40	3758945.42	1.24E-02	369131.40	3758945.42	2.02E-03	369131.40	3758945.42	1.90E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.54E-01	369131.40	3758945.42	4.48E-02	369131.40	3758945.42	2.08E-02	369131.40	3758945.42	3.41E-03	369131.40	3758945.42	3.24E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.00E-01	369131.40	3758945.42	2.60E-02	369131.40	3758945.42	1.11E-02	369131.40	3758945.42	2.29E-03	369131.40	3758945.42	2.19E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.48E-01	369131.40	3758945.42	2.53E-02	369131.40	3758945.42	1.12E-02	369131.40	3758945.42	2.22E-03	369131.40	3758945.42	2.12E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.91E-01	369131.40	3758945.42	2.43E-02	369131.40	3758945.42	1.04E-02	369131.40	3758945.42	2.20E-03	369131.40	3758945.42	2.10E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.72E-01	369131.40	3758945.42	2.63E-02	369131.40	3758945.42	1.20E-02	369131.40	3758945.42	2.33E-03	369131.40	3758945.42	2.23E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.37E-01	369131.40	3758945.42	2.24E-02	369131.40	3758945.42	1.01E-02	369131.40	3758945.42	1.95E-03	369131.40	3758945.42	1.86E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.97E+01	369131.40	3758945.42	1.32E+00	369131.40	3758945.42	5.28E-01	369131.40	3758945.42	1.04E-01	369131.40	3758945.42	1.01E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.55E+01	369131.40	3758945.42	1.08E+00	369131.40	3758945.42	5.03E-01	369131.40	3758945.42	8.84E-02	369131.40	3758945.42	8.49E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.10E+01	369131.40	3758945.42	8.96E-01	369131.40	3758945.42	4.22E-01	369131.40	3758945.42	7.94E-02	369131.40	3758945.42	7.69E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.71E+01	369131.40	3758945.42	6.93E-01	369131.40	3758945.42	3.47E-01	369131.40	3758945.42	6.20E-02	369131.40	3758945.42	5.96E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.79E+00	369131.40	3758945.42	2.00E+00	369131.40	3758945.42	9.51E-01	369131.40	3758945.42	3.24E-01	369131.40	3758945.42	3.04E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.39E+01	369131.40	3758945.42	6.59E-01	369131.40	3758945.42	3.16E-01	369131.40	3758945.42	5.19E-02	369131.40	3758945.42	4.99E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.14E+01	369131.40	3758945.42	6.17E-01	369131.40	3758945.42	2.71E-01	369131.40	3758945.42	5.05E-02	369131.40	3758945.42	4.86E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.41E+00	369131.40	3758945.42	5.08E-01	369131.40	3758945.42	2.24E-01	369131.40	3758945.42	4.18E-02	369131.40	3758945.42	3.98E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.85E+00	369131.40	3758945.42	4.00E-01	369131.40	3758945.42	1.83E-01	369131.40	3758945.42	4.27E-02	369131.40	3758945.42	4.10E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.62E+00	369131.40	3758945.42	3.92E-01	369131.40	3758945.42	1.81E-01	369131.40	3758945.42	3.79E-02	369131.40	3758945.42	3.65E-02	369131.40	3758945.42	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 8 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	1.45E-01	369131.40	3758945.42	2.19E-02	369131.40	3758945.42	9.79E-03	369131.40	3758945.42	2.12E-03	369131.40	3758945.42	2.03E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.56E-01	369131.40	3758945.42	5.74E-02	369131.40	3758945.42	2.58E-02	369131.40	3758945.42	5.85E-03	369131.40	3758945.42	5.60E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.49E-01	369131.40	3758945.42	5.20E-02	369131.40	3758945.42	2.31E-02	369131.40	3758945.42	4.69E-03	369131.40	3758945.42	4.50E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.73E-01	369131.40	3758945.42	3.16E-02	369131.40	3758945.42	1.40E-02	369131.40	3758945.42	2.91E-03	369131.40	3758945.42	2.79E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.98E-01	369131.40	3758945.42	9.20E-02	369131.40	3758945.42	4.43E-02	369131.40	3758945.42	5.55E-03	369131.40	3758945.42	5.25E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.73E-01	369131.40	3758945.42	7.22E-02	369131.40	3758945.42	3.53E-02	369131.40	3758945.42	5.21E-03	369131.40	3758945.42	5.00E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.52E-01	369131.40	3758945.42	4.57E-02	369131.40	3758945.42	2.06E-02	369131.40	3758945.42	4.38E-03	369131.40	3758945.42	4.20E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.70E-01	369131.40	3758945.42	3.10E-02	369131.40	3758945.42	1.37E-02	369131.40	3758945.42	2.79E-03	369131.40	3758945.42	2.68E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.97E-01	369131.40	3758945.42	4.41E-02	369131.40	3758945.42	1.95E-02	369131.40	3758945.42	3.95E-03	369131.40	3758945.42	3.79E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.72E-01	369131.40	3758945.42	5.49E-02	369131.40	3758945.42	2.53E-02	369131.40	3758945.42	4.93E-03	369131.40	3758945.42	4.73E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.81E-01	369131.40	3758945.42	3.13E-02	369131.40	3758945.42	1.38E-02	369131.40	3758945.42	2.81E-03	369131.40	3758945.42	2.70E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.46E-01	369131.40	3758945.42	4.24E-02	369131.40	3758945.42	1.89E-02	369131.40	3758945.42	3.80E-03	369131.40	3758945.42	3.65E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.65E-01	369131.40	3758945.42	7.32E-02	369131.40	3758945.42	3.26E-02	369131.40	3758945.42	6.85E-03	369131.40	3758945.42	6.55E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.93E-01	369131.40	3758945.42	7.71E-02	369131.40	3758945.42	3.64E-02	369131.40	3758945.42	7.14E-03	369131.40	3758945.42	6.83E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.58E-01	369131.40	3758945.42	2.78E-02	369131.40	3758945.42	1.23E-02	369131.40	3758945.42	2.48E-03	369131.40	3758945.42	2.38E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.08E-01	369131.40	3758945.42	7.99E-02	369131.40	3758945.42	3.70E-02	369131.40	3758945.42	5.64E-03	369131.40

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 8 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	6.93E+00	369131.40	3758945.42	3.88E-01	369131.40	3758945.42	1.82E-01	369131.40	3758945.42	3.31E-02	369131.40	3758945.42	3.20E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.59E+00	369131.40	3758945.42	4.61E-01	369131.40	3758945.42	1.99E-01	369131.40	3758945.42	3.66E-02	369131.40	3758945.42	3.52E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.44E+00	369131.40	3758945.42	5.57E-01	369131.40	3758945.42	2.48E-01	369131.40	3758945.42	4.49E-02	369131.40	3758945.42	4.33E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.72E+00	369131.40	3758945.42	6.10E-01	369131.40	3758945.42	2.78E-01	369131.40	3758945.42	5.42E-02	369131.40	3758945.42	5.21E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.77E+00	369131.40	3758945.42	6.60E-01	369131.40	3758945.42	3.06E-01	369131.40	3758945.42	7.02E-02	369131.40	3758945.42	6.71E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.17E+00	369131.40	3758945.42	7.79E-01	369131.40	3758945.42	3.69E-01	369131.40	3758945.42	8.77E-02	369131.40	3758945.42	8.35E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.43E+00	369131.40	3758945.42	8.34E-01	369131.40	3758945.42	4.15E-01	369131.40	3758945.42	1.00E-01	369131.40	3758945.42	9.54E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.02E+00	369131.40	3758945.42	7.84E-01	369131.40	3758945.42	3.58E-01	369131.40	3758945.42	1.06E-01	369131.40	3758945.42	1.01E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.66E+00	369131.40	3758945.42	8.22E-01	369131.40	3758945.42	3.84E-01	369131.40	3758945.42	1.11E-01	369131.40	3758945.42	1.06E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.91E+00	369131.40	3758945.42	7.30E-01	369131.40	3758945.42	3.45E-01	369131.40	3758945.42	9.54E-02	369131.40	3758945.42	9.03E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.06E+00	369131.40	3758945.42	5.42E-01	369131.40	3758945.42	2.46E-01	369131.40	3758945.42	5.02E-02	369131.40	3758945.42	4.82E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.46E+00	369131.40	3758945.42	5.79E-01	369131.40	3758945.42	2.68E-01	369131.40	3758945.42	6.17E-02	369131.40	3758945.42	5.89E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.14E+00	369131.40	3758945.42	6.78E-01	369131.40	3758945.42	3.20E-01	369131.40	3758945.42	7.35E-02	369131.40	3758945.42	7.04E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.09E+00	369131.40	3758945.42	7.23E-01	369131.40	3758945.42	3.59E-01	369131.40	3758945.42	8.31E-02	369131.40	3758945.42	7.92E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.29E+00	369131.40	3758945.42	6.39E-01	369131.40	3758945.42	3.17E-01	369131.40	3758945.42	8.04E-02	369131.40	3758945.42	7.68E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.54E+00	369131.40	3758945.42	7.09E-01	369131.40	3758945.42	3.27E-01	369131.40	3758945.42	9.23E-02	369131.40	3758945.42	8.80E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.14E+00	369131.40	3758945.42	6.77E-01	369131.40	3758945.42	3.16E-01	369131.40	3758945.42	8.33E-02	369131.40	3758945.42	7.94E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.62E+00	369131.40	3758945.42	6.36E-01	369131.40	3758945.42	3.16E-01	369131.40	3758945.42	7.08E-02	369131.40	3758945.42	6.75E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.25E+00	369131.40	3758945.42	5.81E-01	369131.40	3758945.42	2.91E-01	369131.40	3758945.42	6.84E-02	369131.40	3758945.42	6.49E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.07E+00	369131.40	3758945.42	6.06E-01	369131.40	3758945.42	2.77E-01	369131.40	3758945.42	7.57E-02	369131.40	3758945.42	7.22E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.13E+00	369131.40	3758945.42	6.11E-01	369131.40	3758945.42	2.85E-01	369131.40	3758945.42	7.45E-02	369131.40	3758945.42	7.10E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.22E+00	369131.40	3758945.42	5.35E-01	369131.40	3758945.42	2.67E-01	369131.40	3758945.42	5.96E-02	369131.40	3758945.42	5.66E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.29E+00	369131.40	3758945.42	5.19E-01	369131.40	3758945.42	2.34E-01	369131.40	3758945.42	6.21E-02	369131.40	3758945.42	5.93E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.82E+00	369131.40	3758945.42	5.49E-01	369131.40	3758945.42	2.53E-01	369131.40	3758945.42	6.59E-02	369131.40	3758945.42	6.29E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.91E+00	369131.40	3758945.42	2.03E-01	369131.40	3758945.42	8.98E-02	369131.40	3758945.42	1.64E-02	369131.40	3758945.42	1.59E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.04E+00	369131.40	3758945.42	2.43E-01	369131.40	3758945.42	1.13E-01	369131.40	3758945.42	2.00E-02	369131.40	3758945.42	1.93E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.44E+00	369131.40	3758945.42	4.10E-01	369131.40	3758945.42	1.96E-01	369131.40	3758945.42	3.33E-02	369131.40	3758945.42	3.19E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.87E-01	369131.40	3758945.42	3.50E-02	369131.40	3758945.42	1.57E-02	369131.40	3758945.42	3.05E-03	369131.40	3758945.42	2.94E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.17E-01	369131.40	3758945.42	3.49E-02	369131.40	3758945.42	1.54E-02	369131.40	3758945.42	2.98E-03	369131.40	3758945.42	2.84E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.24E+00	369131.40	3758945.42	4.93E-01	369131.40	3758945.42	2.46E-01	369131.40	3758945.42	5.25E-02	369131.40	3758945.42	4.99E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.42E+00	369131.40	3758945.42	4.47E-01	369131.40	3758945.42	1.99E-01	369131.40	3758945.42	5.14E-02	369131.40	3758945.42	4.91E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.25E+00	369131.40	3758945.42	4.87E-01	369131.40	3758945.42	2.22E-01	369131.40	3758945.42	5.72E-02	369131.40	3758945.42	5.46E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.43E+00	369131.40	3758945.42	1.32E-01	369131.40	3758945.42	6.30E-02	369131.40	3758945.42	8.25E-03	369131.40	3758945.42	7.88E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.35E+00	369131.40	3758945.42	1.36E-01	369131.40	3758945.42	6.69E-02	369131.40	3758945.42	8.67E-03	369131.40	3758945.42	8.38E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.23E+00	369131.40	3758945.42	4.56E-01	369131.40	3758945.42	2.27E-01	369131.40	3758945.42	4.68E-02	369131.40	3758945.42	4.45E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.90E+00	369131.40	3758945.42	3.87E-01	369131.40	3758945.42	1.88E-01	369131.40	3758945.42	4.29E-02	369131.40	3758945.42	4.10E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.53E+00	369131.40	3758945.42	4.31E-01	369131.40	3758945.42	1.94E-01	369131.40	3758945.42	4.93E-02	369131.40	3758945.42	4.71E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.14E+00	369131.40	3758945.42	4.23E-01	369131.40	3758945.42	2.10E-01	369131.40	3758945.42	4.24E-02	369131.40	3758945.42	3.99E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.92E+00	369131.40	3758945.42	3.60E-01	369131.40	3758945.42	1.80E-01	369131.40	3758945.42	3.72E-02	369131.40	3758945.42	3.54E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.83E+00	369131.40	3758945.42	3.80E-01	369131.40	3758945.42	1.69E-01	369131.40	3758945.42	4.24E-02	369131.40	3758945.42	4.05E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.01E+00	369131.40	3758945.42	3.94E-01	369131.40	3758945.42	1.95E-01	369131.40	3758945.42	3.83E-02	369131.40	3758945.42	3.66E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.91E+00	369131.40	3758945.42	3.45E-01	369131.40	3758945.42	1.72E-01	369131.40	3758945.42	3.48E-02	369131.40	3758945.42	3.31E-02	369131.40	3758945.42	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 8 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	9.73E-01	369131.40	3758945.42	1.77E-01	369131.40	3758945.42	7.95E-02	369131.40	3758945.42	1.38E-02	369131.40	3758945.42	1.33E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.23E+00	369131.40	3758945.42	1.29E-01	369131.40	3758945.42	5.49E-02	369131.40	3758945.42	8.78E-03	369131.40	3758945.42	8.44E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.62E-01	369131.40	3758945.42	5.46E-02	369131.40	3758945.42	2.58E-02	369131.40	3758945.42	5.74E-03	369131.40	3758945.42	5.50E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.37E-01	369131.40	3758945.42	1.88E-02	369131.40	3758945.42	8.58E-03	369131.40	3758945.42	1.73E-03	369131.40	3758945.42	1.66E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.65E+00	369131.40	3758945.42	2.38E-01	369131.40	3758945.42	1.20E-01	369131.40	3758945.42	1.94E-02	369131.40	3758945.42	1.87E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.10E+00	369131.40	3758945.42	5.64E-01	369131.40	3758945.42	2.88E-01	369131.40	3758945.42	2.76E-02	369131.40	3758945.42	2.69E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.65E-01	369131.40	3758945.42	9.91E-02	369131.40	3758945.42	4.57E-02	369131.40	3758945.42	7.75E-03	369131.40	3758945.42	7.18E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.70E+00	369131.40	3758945.42	2.24E-01	369131.40	3758945.42	1.01E-01	369131.40	3758945.42	1.47E-02	369131.40	3758945.42	1.38E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.19E+00	369131.40	3758945.42	3.60E-01	369131.40	3758945.42	1.52E-01	369131.40	3758945.42	1.86E-02	369131.40	3758945.42	1.77E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	9.45E-01	369131.40	3758945.42	3.98E-01	369131.40	3758945.42	1.94E-01	369131.40	3758945.42	2.75E-02	369131.40	3758945.42	2.66E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.33E-01	369131.40	3758945.42	3.57E-02	369131.40	3758945.42	1.58E-02	369131.40	3758945.42	3.11E-03	369131.40	3758945.42	2.99E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.46E+00	369131.40	3758945.42	5.97E-01	369131.40	3758945.42	3.00E-01	369131.40	3758945.42	4.34E-02	369131.40	3758945.42	4.19E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.26E+01	369131.40	3758945.42	1.01E+00	369131.40	3758945.42	4.01E-01	369131.40	3758945.42	6.70E-02	369131.40	3758945.42	6.40E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.58E+01	369131.40	3758945.42	8.13E-01	369131.40	3758945.42	4.17E-01	369131.40	3758945.42	5.67E-02	369131.40	3758945.42	5.46E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.54E+00	369131.40	3758945.42	9.54E-01	369131.40	3758945.42	4.91E-01	369131.40	3758945.42	7.36E-02	369131.40	3758945.42	7.10E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.59E+01	369131.40	3758945.42	1.11E+00	369131.40	3758945.42	4.30E-01	369131.40	3758945.42	7.43E-02	369131.40	3758945.42	7.10E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.14E+01	369131.40	3758945.42	9.94E-01	369131.40	3758945.42	5.14E-01	369131.40	3758945.42	6.98E-02	369131.40	3758945.42	6.70E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	5.94E+00	369131.40	3758945.42	1.13E+00	369131.40	3758945.42	5.74E-01	369131.40	3758945.42	9.13E-02	369131.40	3758945.42	8.81E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.60E+00	369131.40	3758945.42	9.35E-01	369131.40	3758945.42	4.79E-01	369131.40	3758945.42	4.80E-02	369131.40	3758945.42	4.68E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.71E+01	369131.40	3758945.42	8.41E-01	369131.40	3758945.42	3.70E-01	369131.40	3758945.42	7.98E-02	369131.40	3758945.42	7.64E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.10E+01	369131.40	3758945.42	1.14E+00	369131.40	3758945.42	5.75E-01	369131.40	3758945.42	8.36E-02	369131.40	3758945.42	8.03E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.51E+01	369131.40	3758945.42	1.20E+00	369131.40	3758945.42	4.19E-01	369131.40	3758945.42	8.48E-02	369131.40	3758945.42	8.15E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.60E+01	369131.40	3758945.42	1.00E+00	369131.40	3758945.42	4.87E-01	369131.40	3758945.42	9.66E-02	369131.40	3758945.42	9.27E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.83E+01	369131.40	3758945.42	1.32E+00	369131.40	3758945.42	6.15E-01	369131.40	3758945.42	9.64E-02	369131.40	3758945.42	9.24E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.43E+01	369131.40	3758945.42	1.35E+00	369131.40	3758945.42	7.08E-01	369131.40	3758945.42	1.17E-01	369131.40	3758945.42	1.13E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.03E+01	369131.40	3758945.42	1.27E+00	369131.40	3758945.42	6.15E-01	369131.40	3758945.42	1.16E-01	369131.40	3758945.42	1.12E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.63E+01	369131.40	3758945.42	1.60E+00	369131.40	3758945.42	7.98E-01	369131.40	3758945.42	1.59E-01	369131.40	3758945.42	1.54E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.00E+01	369131.40	3758945.42	1.44E+00	369131.40	3758945.42	6.48E-01	369131.40	3758945.42	1.23E-01	369131.40	3758945.42	1.18E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.85E+01	369131.40	3758945.42	1.83E+00	369131.40	3758945.42	8.50E-01	369131.40	3758945.42	1.63E-01	369131.40	3758945.42	1.58E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.55E+01	369131.40	3758945.42	1.39E+00	369131.40	3758945.42	6.20E-01	369131.40	3758945.42	1.22E-01	369131.40	3758945.42	1.18E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.96E+01	369131.40	3758945.42	1.88E+00	369131.40	3758945.42	8.65E-01	369131.40	3758945.42	1.78E-01	369131.40	3758945.42	1.72E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.76E+01	369131.40	3758945.42	1.44E+00	369131.40	3758945.42	6.80E-01	369131.40	3758945.42	1.24E-01	369131.40	3758945.42	1.21E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.95E+01	369131.40	3758945.42	2.10E+00	369131.40	3758945.42	9.79E-01	369131.40	3758945.42	1.96E-01	369131.40	3758945.42	1.90E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.24E+01	369131.40	3758945.42	3.34E+00	369131.40	3758945.42	1.53E+00	369131.40	3758945.42	3.44E-01	369131.40	3758945.42	3.33E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.22E+01	369131.40	3758945.42	1.08E+00	369131.40	3758945.42	5.10E-01	369131.40	3758945.42	9.76E-02	369131.40	3758945.42	9.46E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.16E+01	369131.40	3758945.42	1.32E+00	369131.40	3758945.42	6.51E-01	369131.40	3758945.42	1.27E-01	369131.40	3758945.42	1.22E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.46E+01	369131.40	3758945.42	1.93E+00	369131.40	3758945.42	8.83E-01	369131.40	3758945.42	1.93E-01	369131.40	3758945.42	1.86E-01	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.49E-01	369131.40	3758945.42	6.29E-02	369131.40	3758945.42	2.66E-02	369131.40	3758945.42	5.39E-03	369131.40	3758945.42	5.18E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.72E-01	369131.40	3758945.42	1.06E-01	369131.40	3758945.42	4.47E-02	369131.40	3758945.42	7.95E-03	369131.40	3758945.42	7.61E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.45E-01	369131.40	3758945.42	1.02E-01	369131.40	3758945.42	4.61E-02	369131.40	3758945.42	8.38E-03	369131.40	3758945.42	8.05E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.76E-01	369131.40	3758945.42	7.08E-02	369131.40	3758945.42	3.17E-02	369131.40	3758945.42	5.81E-03	369131.40	3758945.42	5.59E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.96E-01	369131.40	3758945.42	3.16E-02	369131.40	3758945.42	1.39E-02	369131.40	3758945.42	2.61E-03	369131.40	3758945.42	2.51E-03	369131.40	3758945.42	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 8 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	1.67E+00	369131.40	3758945.42	3.37E-01	369131.40	3758945.42	1.48E-01	369131.40	3758945.42	3.66E-02	369131.40	3758945.42	3.49E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.52E+00	369131.40	3758945.42	1.72E-01	369131.40	3758945.42	8.00E-02	369131.40	3758945.42	1.67E-02	369131.40	3758945.42	1.61E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.23E+00	369131.40	3758945.42	1.71E-01	369131.40	3758945.42	7.76E-02	369131.40	3758945.42	1.45E-02	369131.40	3758945.42	1.40E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.19E+00	369131.40	3758945.42	1.14E-01	369131.40	3758945.42	5.60E-02	369131.40	3758945.42	8.17E-03	369131.40	3758945.42	7.87E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.23E-01	369131.40	3758945.42	1.02E-01	369131.40	3758945.42	5.07E-02	369131.40	3758945.42	8.93E-03	369131.40	3758945.42	8.56E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.90E+00	369131.40	3758945.42	3.68E-01	369131.40	3758945.42	1.81E-01	369131.40	3758945.42	3.53E-02	369131.40	3758945.42	3.37E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.84E+00	369131.40	3758945.42	3.31E-01	369131.40	3758945.42	1.65E-01	369131.40	3758945.42	3.26E-02	369131.40	3758945.42	3.10E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.67E+00	369131.40	3758945.42	2.98E-01	369131.40	3758945.42	1.33E-01	369131.40	3758945.42	3.16E-02	369131.40	3758945.42	3.02E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.79E+00	369131.40	3758945.42	2.22E-01	369131.40	3758945.42	9.88E-02	369131.40	3758945.42	1.92E-02	369131.40	3758945.42	1.85E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.34E+00	369131.40	3758945.42	2.38E-01	369131.40	3758945.42	1.06E-01	369131.40	3758945.42	2.16E-02	369131.40	3758945.42	2.07E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.96E+00	369131.40	3758945.42	2.43E-01	369131.40	3758945.42	1.09E-01	369131.40	3758945.42	2.31E-02	369131.40	3758945.42	2.21E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.97E+00	369131.40	3758945.42	2.41E-01	369131.40	3758945.42	1.07E-01	369131.40	3758945.42	2.38E-02	369131.40	3758945.42	2.27E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.76E+00	369131.40	3758945.42	2.77E-01	369131.40	3758945.42	1.23E-01	369131.40	3758945.42	2.62E-02	369131.40	3758945.42	2.52E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	6.64E-01	369131.40	3758945.42	1.52E-01	369131.40	3758945.42	7.30E-02	369131.40	3758945.42	1.20E-02	369131.40	3758945.42	1.14E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.25E-01	369131.40	3758945.42	6.70E-02	369131.40	3758945.42	2.94E-02	369131.40	3758945.42	5.43E-03	369131.40	3758945.42	5.23E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.34E-01	369131.40	3758945.42	3.20E-02	369131.40	3758945.42	1.42E-02	369131.40	3758945.42	3.20E-03	369131.40

Attachment F.1.3

Construction Concentrations– Toxic Air Contaminants

- PM10 Inputs – 1 Hour and 8 Hour

Pollutant: PM10 , Concentrations, Units: ug/m3 , Emissions Averaging: Peak Month Average Day , Averaging Period: 1 Hour

Emissions Source: Break Wear (G001) Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust (G002) Without Mitigation			Emissions Source: Diesel Exhaust (G002) With Mitigation			Emissions Source: Fugitive Dust (G003) Without Mitigation (no practical mitigation)			Emissions Source: Gasoline Exhaust (G004) Without Mitigation			Emissions Source: Gasoline Exhaust (G004) With Mitigation			Emissions Source: Tire Wear (G005) Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019
369131.40	3758945.42	5.99E-01	369131.40	3758945.42	1.21E+00	369131.40	3758945.42	2.04E-01	369131.40	3758945.42	9.17E-01	369131.40	3758945.42	2.77E-02	369131.40	3758945.42	2.77E-02	369131.40	3758945.42	1.56E-01
370190.78	3758848.26	4.42E-01	370190.78	3758848.26	1.49E+00	370190.78	3758848.26	2.27E-01	370190.78	3758848.26	9.85E-01	370190.78	3758848.26	2.89E-02	370190.78	3758848.26	2.89E-02	370190.78	3758848.26	1.08E-01
370747.03	3763937.58	6.38E-02	370747.03	3763937.58	1.65E-01	370747.03	3763937.58	2.91E-02	370747.03	3763937.58	1.61E-01	370747.03	3763937.58	2.82E-03	370747.03	3763937.58	2.82E-03	370747.03	3763937.58	1.83E-02
370757.72	3755124.52	5.65E-01	370757.72	3755124.52	1.42E+00	370757.72	3755124.52	2.40E-01	370757.72	3755124.52	2.34E+00	370757.72	3755124.52	2.88E-02	370757.72	3755124.52	2.88E-02	370757.72	3755124.52	1.47E-01
370946.70	3758260.69	6.66E-01	370946.70	3758260.69	2.25E+00	370946.70	3758260.69	3.35E-01	370946.70	3758260.69	1.36E+00	370946.70	3758260.69	4.30E-02	370946.70	3758260.69	4.30E-02	370946.70	3758260.69	1.56E-01
371368.79	3754218.82	2.75E-01	371368.79	3754218.82	6.11E-01	371368.79	3754218.82	9.56E-02	371368.79	3754218.82	4.88E-01	371368.79	3754218.82	1.13E-02	371368.79	3754218.82	1.13E-02	371368.79	3754218.82	7.21E-02
371786.04	3754168.42	2.30E-01	371786.04	3754168.42	5.00E-01	371786.04	3754168.42	8.74E-02	371786.04	3754168.42	4.44E-01	371786.04	3754168.42	9.79E-03	371786.04	3754168.42	9.79E-03	371786.04	3754168.42	6.00E-02
373756.25	3761779.11	1.70E-01	373756.25	3761779.11	3.61E-01	373756.25	3761779.11	6.18E-02	373756.25	3761779.11	2.98E-01	373756.25	3761779.11	7.11E-03	373756.25	3761779.11	7.11E-03	373756.25	3761779.11	4.61E-02
367734.03	3758536.57	3.85E-01	367734.03	3758536.57	9.77E-01	367734.03	3758536.57	1.70E-01	367734.03	3758536.57	7.15E-01	367734.03	3758536.57	1.88E-02	367734.03	3758536.57	1.88E-02	367734.03	3758536.57	1.02E-01
368069.11	3760165.13	1.79E-01	368069.11	3760165.13	5.68E-01	368069.11	3760165.13	9.38E-02	368069.11	3760165.13	6.78E-01	368069.11	3760165.13	8.91E-03	368069.11	3760165.13	8.91E-03	368069.11	3760165.13	4.73E-02
369125.38	3763066.25	1.08E-01	369125.38	3763066.25	2.52E-01	369125.38	3763066.25	4.44E-02	369125.38	3763066.25	2.40E-01	369125.38	3763066.25	4.92E-03	369125.38	3763066.25	4.92E-03	369125.38	3763066.25	2.98E-02
369225.45	3764227.42	6.74E-02	369225.45	3764227.42	1.92E-01	369225.45	3764227.42	3.41E-02	369225.45	3764227.42	1.90E-01	369225.45	3764227.42	3.18E-03	369225.45	3764227.42	3.18E-03	369225.45	3764227.42	1.91E-02
370236.75	3761140.30	1.39E-01	370236.75	3761140.30	2.84E-01	370236.75	3761140.30	4.92E-02	370236.75	3761140.30	2.38E-01	370236.75	3761140.30	5.70E-03	370236.75	3761140.30	5.70E-03	370236.75	3761140.30	3.70E-02
372218.41	3759157.53	2.42E-01	372218.41	3759157.53	5.75E-01	372218.41	3759157.53	9.66E-02	372218.41	3759157.53	6.00E-01	372218.41	3759157.53	1.03E-02	372218.41	3759157.53	1.03E-02	372218.41	3759157.53	6.61E-02
372267.44	3762986.25	8.07E-02	372267.44	3762986.25	2.28E-01	372267.44	3762986.25	3.97E-02	372267.44	3762986.25	2.08E-01	372267.44	3762986.25	4.20E-03	372267.44	3762986.25	4.20E-03	372267.44	3762986.25	2.25E-02
374498.14	3758643.27	1.61E-01	374498.14	3758643.27	8.88E-01	374498.14	3758643.27	1.34E-01	374498.14	3758643.27	1.38E+00	374498.14	3758643.27	8.51E-03	374498.14	3758643.27	8.51E-03	374498.14	3758643.27	4.63E-02
375472.61	3759680.03	1.51E-01	375472.61	3759680.03	9.19E-01	375472.61	3759680.03	1.45E-01	375472.61	3759680.03	8.20E-01	375472.61	3759680.03	1.08E-02	375472.61	3759680.03	1.08E-02	375472.61	3759680.03	4.27E-02
375514.38	3757500.61	2.37E-01	375514.38	3757500.61	1.11E+00	375514.38	3757500.61	1.83E-01	375514.38	3757500.61	1.25E+00	375514.38	3757500.61	1.47E-02	375514.38	3757500.61	1.47E-02	375514.38	3757500.61	6.79E-02
377395.41	3759189.37	1.56E-01	377395.41	3759189.37	4.65E-01	377395.41	3759189.37	7.57E-02	377395.41	3759189.37	4.84E-01	377395.41	3759189.37	6.66E-03	377395.41	3759189.37	6.66E-03	377395.41	3759189.37	4.90E-02
366363.62	3757753.10	2.29E-01	366363.62	3757753.10	6.67E-01	366363.62	3757753.10	1.14E-01	366363.62	3757753.10	7.43E-01	366363.62	3757753.10	9.50E-03	366363.62	3757753.10	9.50E-03	366363.62	3757753.10	6.38E-02
369185.71	3758351.85	7.75E-01	369185.71	3758351.85	1.63E+00	369185.71	3758351.85	2.76E-01	369185.71	3758351.85	1.19E+00	369185.71	3758351.85	1.78E-02	369185.71	3758351.85	1.78E-02	369185.71	3758351.85	2.01E-01
369388.19	3758584.61	5.51E-01	369388.19	3758584.61	1.32E+00	369388.19	3758584.61	2.24E-01	369388.19	3758584.61	1.04E+00	369388.19	3758584.61	2.96E-02	369388.19	3758584.61	2.96E-02	369388.19	3758584.61	1.44E-01
371727.30	3758286.14	4.12E-01	371727.30	3758286.14	1.10E+00	371727.30	3758286.14	1.79E-01	371727.30	3758286.14	1.49E+00	371727.30	3758286.14	2.12E-02	371727.30	3758286.14	2.12E-02	371727.30	3758286.14	9.66E-02
371973.18	3757657.97	5.06E+00	371973.18	3757657.97	1.02E+01	371973.18	3757657.97	1.55E+00	371973.18	3757657.97	8.36E+00	371973.18	3757657.97	2.71E-01	371973.18	3757657.97	2.71E-01	371973.18	3757657.97	1.54E+00
372028.99	3757658.28	1.08E+01	372028.99	3757658.28	1.64E+01	372028.99	3757658.28	2.50E+00	372028.99	3757658.28	1.43E+01	372028.99	3757658.28	4.58E-01	372028.99	3757658.28	4.58E-01	372028.99	3757658.28	3.30E+00
372057.72	3757303.44	1.29E+00	372057.72	3757303.44	5.36E+00	372057.72	3757303.44	7.41E-01	372057.72	3757303.44	3.99E+00	372057.72	3757303.44	7.67E-02	372057.72	3757303.44	7.67E-02	372057.72	3757303.44	3.75E-01
372058.94	3757365.68	1.67E+00	372058.94	3757365.68	5.66E+00	372058.94	3757365.68	8.70E-01	372058.94	3757365.68	3.35E+00	372058.94	3757365.68	7.34E-02	372058.94	3757365.68	7.34E-02	372058.94	3757365.68	5.06E-01
372114.76	3757419.38	1.77E+00	372114.76	3757419.38	1.04E+01	372114.76	3757419.38	1.52E+00	372114.76	3757419.38	7.01E+00	372114.76	3757419.38	1.33E-01	372114.76	3757419.38	1.33E-01	372114.76	3757419.38	4.63E-01
372149.51	3757302.81	1.00E+00	372149.51	3757302.81	2.76E+00	372149.51	3757302.81	4.38E-01	372149.51	3757302.81	3.86E+00	372149.51	3757302.81	4.52E-02	372149.51	3757302.81	4.52E-02	372149.51	3757302.81	2.39E-01
366675.72	3757743.67	2.66E-01	366675.72	3757743.67	7.01E-01	366675.72	3757743.67	1.20E-01	366675.72	3757743.67	7.82E-01	366675.72	3757743.67	1.05E-02	366675.72	3757743.67	1.05E-02	366675.72	3757743.67	7.31E-02
367105.41	3757963.83	2.80E-01	367105.41	3757963.83	8.03E-01	367105.41	3757963.83	1.31E-01	367105.41	3757963.83	8.54E-01	367105.41	3757963.83	1.21E-02	367105.41	3757963.83	1.21E-02	367105.41	3757963.83	7.69E-02
367221.30	3757911.68	2.97E-01	367221.30	3757911.68	7.09E-01	367221.30	3757911.68	1.17E-01	367221.30	3757911.68	8.45E-01	367221.30	3757911.68	1.19E-02	367221.30	3757911.68	1.19E-02	367221.30	3757911.68	8.13E-02
367346.43	3757955.57	2.96E-01	367346.43	3757955.57	7.11E-01	367346.43	3757955.57	1.16E-01	367346.43	3757955.57	8.67E-01	367346.43	3757955.57	1.20E-02	367346.43	3757955.57	1.20E-02	367346.43	3757955.57	8.05E-02
367457.41	3758010.28	2.84E-01	367457.41	3758010.28	7.12E-01	367457.41	3758010.28	1.15E-01	367457.41	3758010.28	9.17E-01	367457.41	3758010.28	1.18E-02	367457.41	3758010.28	1.18E-02	367457.41	3758010.28	7.66E-02
367730.93	3758222.91	5.15E-01	367730.93	3758222.91	1.20E+00	367730.93	3758222.91	2.03E-01	367730.93	3758222.91	9.30E-01	367730.93	3758222.91	2.72E-02	367730.93	3758222.91	2.72E-02	367730.93	3758222.91	1.34E-01
367995.30	3758074.68	7.19E-01	367995.30	3758074.68	1.54E+00	367995.30	3758074.68	2.60E-01	367995.30	3758074.68	1.27E+00	367995.30	3758074.68	3.52E-02	367995.30	3758074.68	3.52E-02	367995.30	3758074.68	1.88E-01
369154.15	3758166.98	7.13E-01	369154.15	3758166.98	1.54E+00	369154.15	3758166.98	2.59E-01	369154.15	3758166.98	1.10E+00	369154.15	3758166.98	3.50E-02	369154.15	3758166.98	3.50E-02	369154.15	3758166.98	1.86E-01
369214.54	3758209.64	6.15E-01	369214.54	3758209.64	1.37E+00	369214.54	3758209.64	2.34E-01	369214.54	3758209.64	1.02E+00	369214.54	3758209.64	3.11E-02	369214.54	3758209.64	3.11E-02	369214.54	3758209.64	1.60E-01
369279.67	3758015.34	8.21E-01	369279.67	3758015.34	1.75E+00	369279.67	3758015.34	2.95E-01	369279.67	3758015.34	1.27E+00	369279.67	3758015.34	4.02E-02	369279.67	3758015.34	4.02E-02	369279.67	3758015.34	2.13E-01
369788.09	3758340.35	6.64E-01	369788.09	3758340.35	1.31E+00	369788.09	3758340.35	2.24E-01	369788.09	3758340.35	1.27E+00	369788.09	3758340.35	2.88E-02	369788.09	3758340.35	2.88E-02	369788.09	3758340.35	1.73E-01
369790.55	3758580.31	5.25E-01	369790.55	3758580.31	1.30E+00	369790.55	3758580.31	2.24E-01	369790.55	3758580.31	1.08E+00	369790.55	3758580.31	2.87E-02	369790.55	3758580.31	2.87E-02	369790.55	3758580.31	1.37E-01
371537.21	3756959.02	1.69E+00	371537.21	3756959.02	9.93E+00	371537.21	3756959.02	1.92E+00	371537.21	3756959.02	2.03E+01	371537.21	3756959.02	7.33E-02	371537.21	3756959.02	7.33E-02	371537.21	3756959.02	5.37E-01
371736.26	3757371.88	7.43E+00	371736.26	3757371.88	2.02E+01	371736.26	3757371.88	2.60E+00	371736.26	3757371.88	1.63E+01	371736.26	3757371.88	3.41E-01	371736.26	3757371.88	3.41E-01	371736.26	3757371.88	1.64E+00
371795.72	3757393.54	1.48E+01	371795.72	3757393.54	5.13E+01	371795.72	3757393.54	6.54E+00	371795.72	3757393.54	4.54E+01	371795.72	3757393.54	5.66E-01	371795.72	3757393.54	5.66E-01	371795.72	3757393.54	4.24E+00
371925.67	3757658.96	3.75E+00	371925.67	3757658.96	7.62E+00	371925.67	3757658.96	1.24E+00	371925.67	3757658.96	6.52E+00	371925.67	3757658.96	1.99E-01	371925.67	3757658.96	1.99E-01	371925.67	3757658.96	1.14E+00

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 8 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	1.43E+00	369131.40	3758945.42	2.62E-01	369131.40	3758945.42	1.24E-01	369131.40	3758945.42	1.32E-02	369131.40	3758945.42	1.14E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.46E+00	369131.40	3758945.42	2.73E-01	369131.40	3758945.42	1.29E-01	369131.40	3758945.42	1.37E-02	369131.40	3758945.42	1.18E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.69E+00	369131.40	3758945.42	2.88E-01	369131.40	3758945.42	1.36E-01	369131.40	3758945.42	1.45E-02	369131.40	3758945.42	1.25E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.86E+00	369131.40	3758945.42	2.96E-01	369131.40	3758945.42	1.38E-01	369131.40	3758945.42	1.51E-02	369131.40	3758945.42	1.30E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.93E+00	369131.40	3758945.42	2.95E-01	369131.40	3758945.42	1.36E-01	369131.40	3758945.42	1.53E-02	369131.40	3758945.42	1.32E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.07E+00	369131.40	3758945.42	2.81E-01	369131.40	3758945.42	1.29E-01	369131.40	3758945.42	1.51E-02	369131.40	3758945.42	1.31E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.14E+00	369131.40	3758945.42	2.56E-01	369131.40	3758945.42	1.15E-01	369131.40	3758945.42	1.44E-02	369131.40	3758945.42	1.26E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.06E+00	369131.40	3758945.42	2.22E-01	369131.40	3758945.42	9.76E-02	369131.40	3758945.42	1.32E-02	369131.40	3758945.42	1.23E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.85E+00	369131.40	3758945.42	2.05E-01	369131.40	3758945.42	9.27E-02	369131.40	3758945.42	1.42E-02	369131.40	3758945.42	1.34E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.57E+00	369131.40	3758945.42	2.66E-01	369131.40	3758945.42	1.12E-01	369131.40	3758945.42	2.03E-02	369131.40	3758945.42	1.91E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.65E+00	369131.40	3758945.42	3.01E-01	369131.40	3758945.42	1.23E-01	369131.40	3758945.42	2.36E-02	369131.40	3758945.42	2.20E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.70E+00	369131.40	3758945.42	3.04E-01	369131.40	3758945.42	1.25E-01	369131.40	3758945.42	2.27E-02	369131.40	3758945.42	2.08E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.75E+00	369131.40	3758945.42	2.73E-01	369131.40	3758945.42	1.22E-01	369131.40	3758945.42	1.87E-02	369131.40	3758945.42	1.70E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.35E+00	369131.40	3758945.42	2.80E-01	369131.40	3758945.42	1.41E-01	369131.40	3758945.42	1.66E-02	369131.40	3758945.42	1.51E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.12E+00	369131.40	3758945.42	3.04E-01	369131.40	3758945.42	1.53E-01	369131.40	3758945.42	1.54E-02	369131.40	3758945.42	1.40E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.05E+00	369131.40	3758945.42	2.35E-01	369131.40	3758945.42	1.18E-01	369131.40	3758945.42	1.20E-02	369131.40	3758945.42	1.13E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.92E+00	369131.40	3758945.42	2.10E-01	369131.40	3758945.42	1.06E-01	369131.40	3758945.42	1.20E-02	369131.40	3758945.42	1.16E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.54E+00	369131.40	3758945.42	2.08E-01	369131.40	3758945.42	1.05E-01	369131.40	3758945.42	1.26E-02	369131.40	3758945.42	1.21E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.94E+00	369131.40	3758945.42	1.92E-01	369131.40	3758945.42	8.92E-02	369131.40	3758945.42	1.57E-02	369131.40	3758945.42	1.50E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.22E+00	369131.40	3758945.42	1.94E-01	369131.40	3758945.42	8.03E-02	369131.40	3758945.42	1.35E-02	369131.40	3758945.42	1.30E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.90E+00	369131.40	3758945.42	1.77E-01	369131.40	3758945.42	7.99E-02	369131.40	3758945.42	1.33E-02	369131.40	3758945.42	1.28E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.53E+00	369131.40	3758945.42	2.56E-01	369131.40	3758945.42	1.06E-01	369131.40	3758945.42	1.79E-02	369131.40	3758945.42	1.73E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.65E+00	369131.40	3758945.42	3.30E-01	369131.40	3758945.42	1.37E-01	369131.40	3758945.42	2.03E-02	369131.40	3758945.42	1.96E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	3.78E+00	369131.40	3758945.42	3.87E-01	369131.40	3758945.42	1.64E-01	369131.40	3758945.42	2.02E-02	369131.40	3758945.42	1.95E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	4.19E+00	369131.40	3758945.42	4.29E-01	369131.40	3758945.42	1.83E-01	369131.40	3758945.42	2.04E-02	369131.40	3758945.42	1.92E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.82E+00	369131.40	3758945.42	3.26E-01	369131.40	3758945.42	1.41E-01	369131.40	3758945.42	1.86E-02	369131.40	3758945.42	1.75E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.64E+00	369131.40	3758945.42	2.84E-01	369131.40	3758945.42	1.25E-01	369131.40	3758945.42	1.81E-02	369131.40	3758945.42	1.72E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.18E+00	369131.40	3758945.42	2.24E-01	369131.40	3758945.42	1.00E-01	369131.40	3758945.42	1.67E-02	369131.40	3758945.42	1.59E-02	369131.40	3758945.42	0.00E+00
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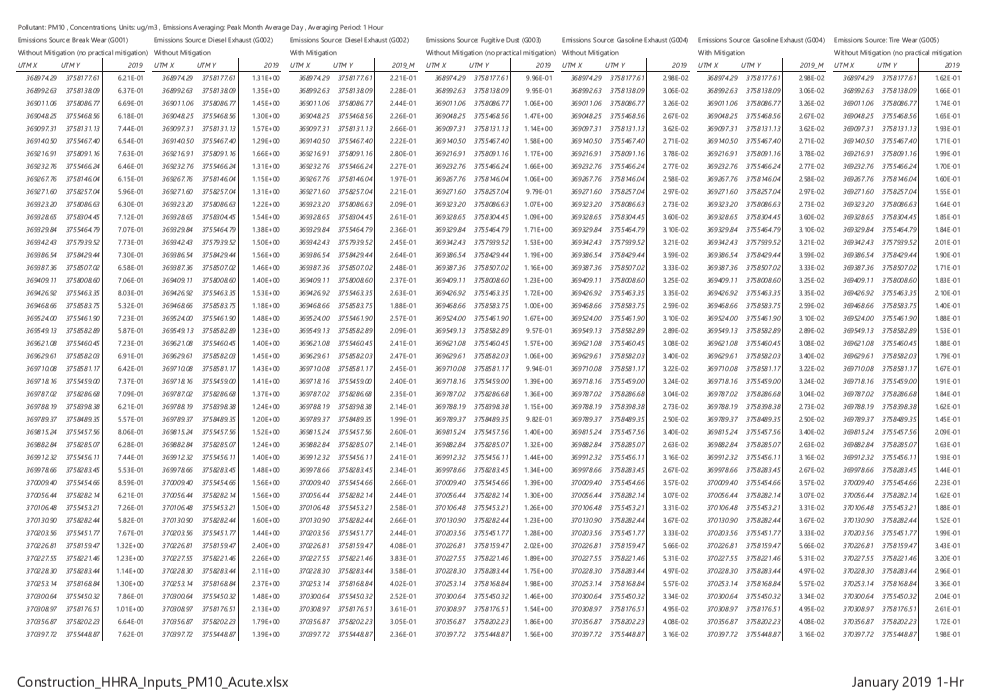
369131.40	3758945.42	1.44E+00	369131.40	3758945.42	1.50E-01	369131.40	3758945.42	6.49E-02	369131.40	3758945.42	1.13E-02	369131.40	3758945.42	1.08E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.37E+00	369131.40	3758945.42	1.62E-01	369131.40	3758945.42	6.63E-02	369131.40	3758945.42	1.13E-02	369131.40	3758945.42	1.09E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.21E+00	369131.40	3758945.42	1.73E-01	369131.40	3758945.42	7.19E-02	369131.40	3758945.42	1.23E-02	369131.40	3758945.42	1.18E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.09E+00	369131.40	3758945.42	1.68E-01	369131.40	3758945.42	7.12E-02	369131.40	3758945.42	1.24E-02	369131.40	3758945.42	1.19E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.03E+00	369131.40	3758945.42	1.69E-01	369131.40	3758945.42	7.29E-02	369131.40	3758945.42	1.30E-02	369131.40	3758945.42	1.25E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.22E+00	369131.40	3758945.42	1.66E-01	369131.40	3758945.42	7.23E-02	369131.40	3758945.42	1.33E-02	369131.40	3758945.42	1.28E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.19E+00	369131.40	3758945.42	1.58E-01	369131.40	3758945.42	6.96E-02	369131.40	3758945.42	1.33E-02	369131.40	3758945.42	1.27E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.32E+00	369131.40	3758945.42	1.47E-01	369131.40	3758945.42	6.51E-02	369131.40	3758945.42	1.30E-02	369131.40	3758945.42	1.24E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.80E+00	369131.40	3758945.42	1.35E-01	369131.40	3758945.42	5.98E-02	369131.40	3758945.42	1.24E-02	369131.40	3758945.42	1.18E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	2.05E+00	369131.40	3758945.42	1.22E-01	369131.40	3758945.42	5.43E-02	369131.40	3758945.42	1.17E-02	369131.40	3758945.42	1.11E-02	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.98E+00	369131.40	3758945.42	1.16E-01	369131.40	3758945.42	5.14E-02	369131.40	3758945.42	1.09E-02	369131.40	3758945.42	1.04E-02	369131.40	3758945.42	0.00E+00

Pollutant: ROG, Units: ug/m3, Concentrations, Emissions Averaging: Peak Month Average Day, Averaging Period: 8 Hour

Emissions Source: Architectural Coating Without Mitigation (no practical mitigation)			Emissions Source: Diesel Exhaust Without Mitigation			Emissions Source: Diesel Exhaust With Mitigation			Emissions Source: Gasoline Exhaust Without Mitigation			Emissions Source: Gasoline Exhaust With Mitigation			Emissions Source: Paving Evaporation Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M
369131.40	3758945.42	1.64E+00	369131.40	3758945.42	1.11E-01	369131.40	3758945.42	4.99E-02	369131.40	3758945.42	1.00E-02	369131.40	3758945.42	9.55E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	1.18E+00	369131.40	3758945.42	1.13E-01	369131.40	3758945.42	4.74E-02	369131.40	3758945.42	9.28E-03	369131.40	3758945.42	8.91E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	7.97E-01	369131.40	3758945.42	1.18E-01	369131.40	3758945.42	5.04E-02	369131.40	3758945.42	8.90E-03	369131.40	3758945.42	8.54E-03	369131.40	3758945.42	0.00E+00
369131.40	3758945.42	8.27E-01	369131.40	3758945.42	1.20E-01	369131.40	3758945.42	5.37E-02	369131.40	3758945.42	8.41E-03	369131.40	3758945.42	8.07E-03	369131.40	3758945.42	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR



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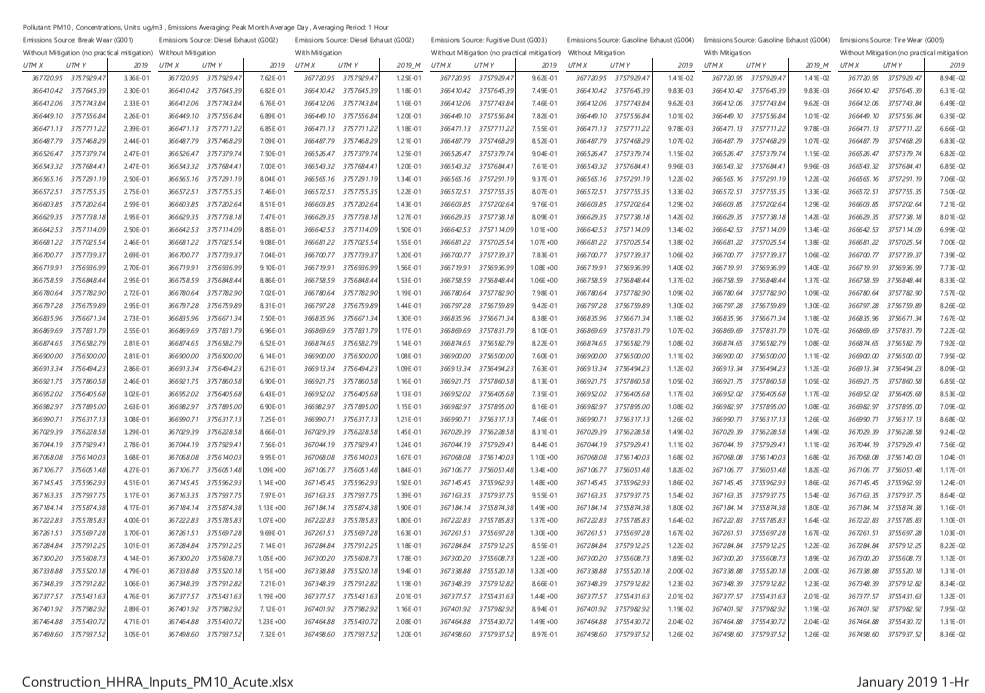
January 2019 1-Hr

LAX Landside Access Modernization Program Project, Final EIR



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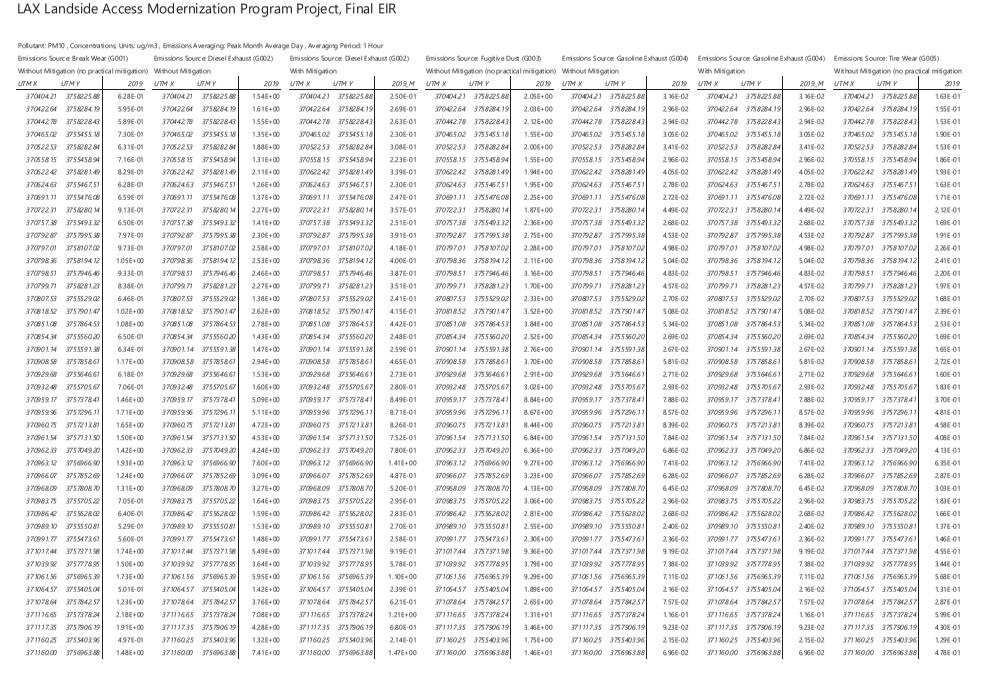
January 2019 1-Hr

LAX Landside Access Modernization Program Project, Final EIR



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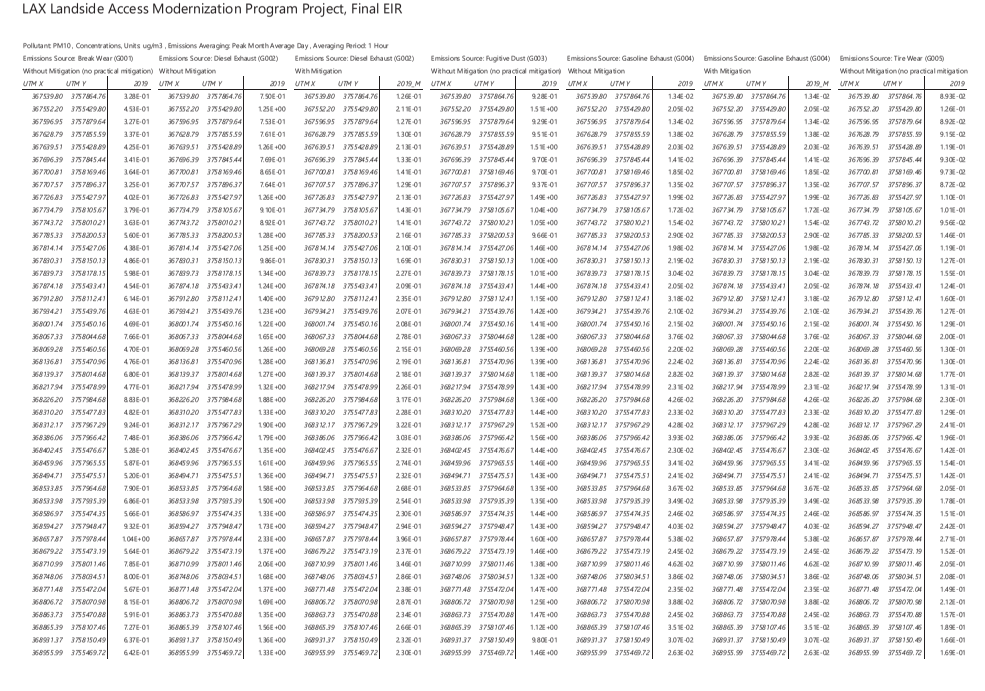
January 2019 1-Hr

LAX Landside Access Modernization Program Project, Final EIR



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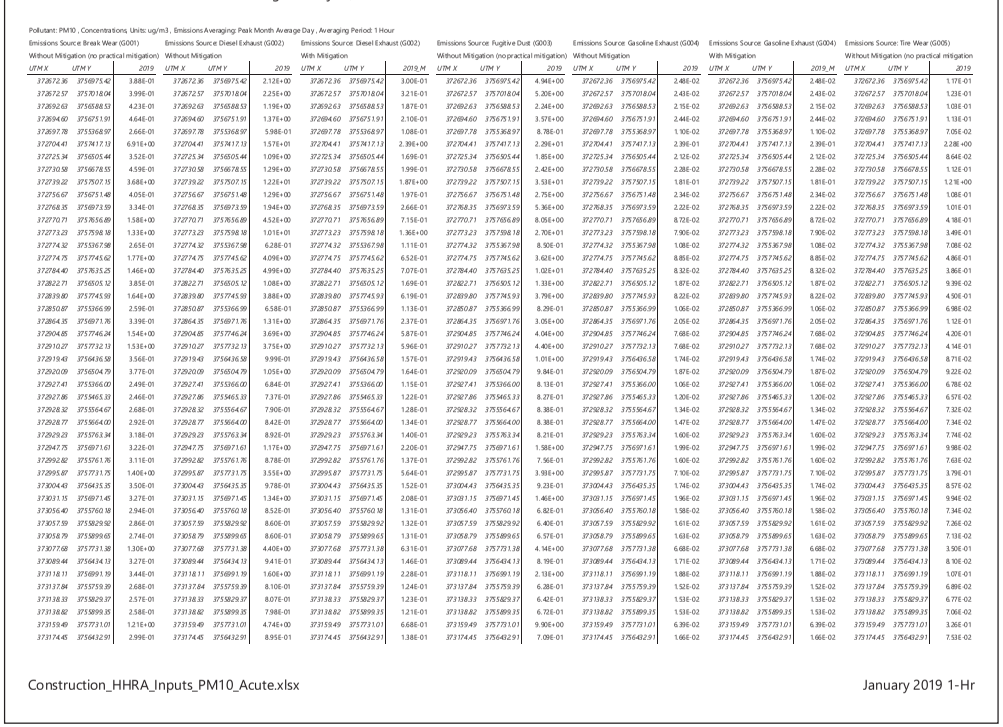
January 2019 1-Hr

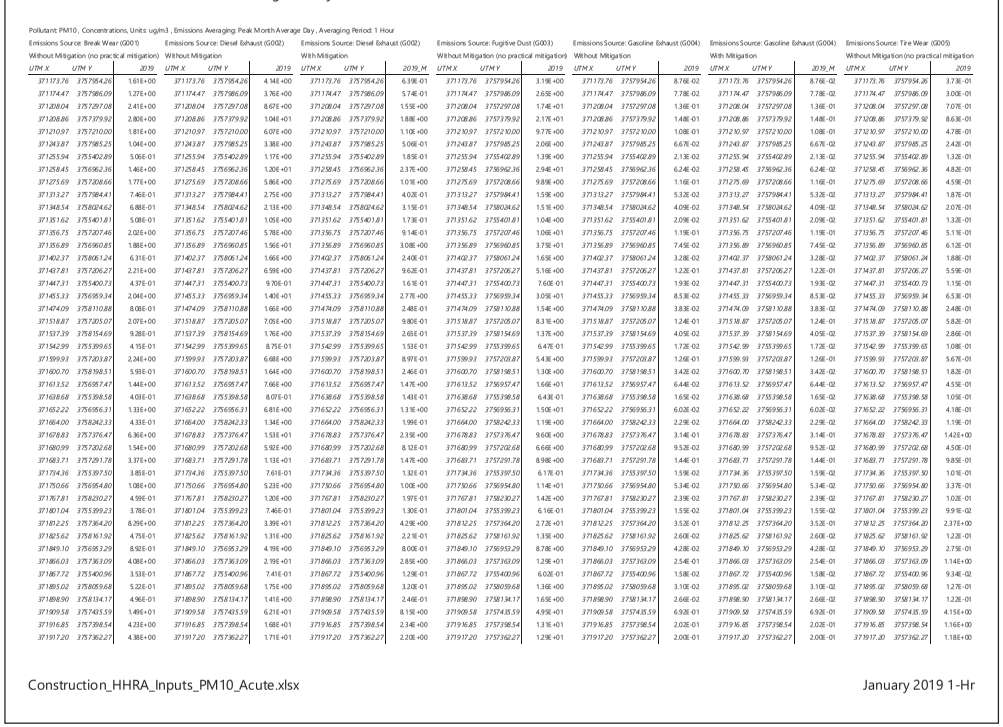
LAX Landside Access Modernization Program Project, Final EIR



Pollutant: PM10 , Concentrations, Units: ug/m3 , Emissions Averaging: Peak Month Average Day , Averaging Period: 1 Hour

Emissions Source: Break Wear (G001)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Fugitive Dust (G003)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Tire Wear (G005)		
Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019
378272.36	3756975.42	3.88E-01	378272.36	3756975.42	2.12E+00	378272.36	3756975.42	3.00E-01	378272.36	3756975.42	4.94E+00	378272.36	3756975.42	2.48E-02	378272.36	3756975.42	2.48E-02	378272.36	3756975.42	1.17E-01
378272.57	3757018.04	3.99E-01	378272.57	3757018.04	2.25E+00	378272.57	3757018.04	3.21E-01	378272.57	3757018.04	5.20E+00	378272.57	3757018.04	2.41E-02	378272.57	3757018.04	2.41E-02	378272.57	3757018.04	1.23E-01
378269.63	3756988.53	4.23E-01	378269.63	3756988.53	1.19E+00	378269.63	3756988.53	1.87E-01	378269.63	3756988.53	2.24E+00	378269.63	3756988.53	2.15E-02	378269.63	3756988.53	2.15E-02	378269.63	3756988.53	1.03E-01
378269.40	3756975.91	4.64E-01	378269.40	3756975.91	1.37E+00	378269.40	3756975.91	2.10E-01	378269.40	3756975.91	3.57E+00	378269.40	3756975.91	2.44E-02	378269.40	3756975.91	2.44E-02	378269.40	3756975.91	1.13E-01
378267.78	3753368.97	2.66E-01	378267.78	3753368.97	5.98E-01	378267.78	3753368.97	8.78E-01	378267.78	3753368.97	1.90E-02	378267.78	3753368.97	1.90E-02	378267.78	3753368.97	1.90E-02	378267.78	3753368.97	7.05E-02
378270.41	3757417.13	6.91E+00	378270.41	3757417.13	1.57E+01	378270.41	3757417.13	2.39E+00	378270.41	3757417.13	2.29E+01	378270.41	3757417.13	2.39E-01	378270.41	3757417.13	2.39E-01	378270.41	3757417.13	2.28E+00
378272.53	3756505.44	3.52E-01	378272.53	3756505.44	1.09E+00	378272.53	3756505.44	1.69E-01	378272.53	3756505.44	1.85E+00	378272.53	3756505.44	2.12E-02	378272.53	3756505.44	2.12E-02	378272.53	3756505.44	8.64E-02
378270.58	3756678.55	4.59E-01	378270.58	3756678.55	1.29E+00	378270.58	3756678.55	1.99E-01	378270.58	3756678.55	2.42E+00	378270.58	3756678.55	2.28E-02	378270.58	3756678.55	2.28E-02	378270.58	3756678.55	1.12E-01
378273.22	3757507.15	3.68E+00	378273.22	3757507.15	1.22E+01	378273.22	3757507.15	1.87E+00	378273.22	3757507.15	3.53E+01	378273.22	3757507.15	1.81E-01	378273.22	3757507.15	1.81E-01	378273.22	3757507.15	1.21E+00
378273.66	3756751.48	4.05E-01	378273.66	3756751.48	1.29E+00	378273.66	3756751.48	1.97E-01	378273.66	3756751.48	2.75E+00	378273.66	3756751.48	2.34E-02	378273.66	3756751.48	2.34E-02	378273.66	3756751.48	1.08E-01
378276.58	3756973.59	3.34E-01	378276.58	3756973.59	2.66E-01	378276.58	3756973.59	5.36E+00	378276.58	3756973.59	2.22E-02	378276.58	3756973.59	2.22E-02	378276.58	3756973.59	2.22E-02	378276.58	3756973.59	1.01E-01
378277.70	3757656.89	1.58E+00	378277.70	3757656.89	4.52E+00	378277.70	3757656.89	7.15E-01	378277.71	3757656.89	8.05E+00	378277.71	3757656.89	8.72E-02	378277.70	3757656.89	8.72E-02	378277.71	3757656.89	4.18E-01
378277.23	3757598.18	1.33E+00	378277.23	3757598.18	1.01E+01	378277.23	3757598.18	1.36E+00	378277.23	3757598.18	2.70E+01	378277.23	3757598.18	7.90E-02	378277.23	3757598.18	7.90E-02	378277.23	3757598.18	3.49E-01
378277.34	3753367.98	2.65E-01	378277.34	3753367.98	6.28E-01	378277.34	3753367.98	1.51E-01	378277.34	3753367.98	8.50E-01	378277.34	3753367.98	1.08E-02	378277.34	3753367.98	1.08E-02	378277.34	3753367.98	7.08E-02
378277.75	3757745.62	1.77E+00	378277.75	3757745.62	4.99E+00	378277.75	3757745.62	6.52E-01	378277.75	3757745.62	3.62E+00	378277.75	3757745.62	8.85E-02	378277.75	3757745.62	8.85E-02	378277.75	3757745.62	4.86E-01
378278.40	3757635.25	1.46E+00	378278.40	3757635.25	4.09E+00	378278.40	3757635.25	7.07E-01	378278.40	3757635.25	1.02E+01	378278.40	3757635.25	8.32E-02	378278.40	3757635.25	8.32E-02	378278.40	3757635.25	3.86E-01
378282.71	3756505.12	3.85E-01	378282.71	3756505.12	1.08E+00	378282.71	3756505.12	1.69E-01	378282.71	3756505.12	1.33E+00	378282.71	3756505.12	1.87E-02	378282.71	3756505.12	1.87E-02	378282.71	3756505.12	9.39E-02
378279.80	3757745.93	1.64E+00	378279.80	3757745.93	3.88E+00	378279.80	3757745.93	6.19E-01	378279.80	3757745.93	3.79E+00	378279.80	3757745.93	8.22E-02	378279.80	3757745.93	8.22E-02	378279.80	3757745.93	4.50E-01
378280.87	3753366.99	2.59E-01	378280.87	3753366.99	6.58E-01	378280.87	3753366.99	1.13E-01	378280.87	3753366.99	8.29E-01	378280.87	3753366.99	1.06E-02	378280.87	3753366.99	1.06E-02	378280.87	3753366.99	6.89E-02
378284.35	3756971.76	3.39E-01	378284.35	3756971.76	1.31E+00	378284.35	3756971.76	2.37E-01	378284.35	3756971.76	3.05E+00	378284.35	3756971.76	2.05E-02	378284.35	3756971.76	2.05E-02	378284.35	3756971.76	1.12E-01
378284.85	3757746.34	1.54E+00	378284.85	3757746.34	3.69E+00	378284.85	3757746.24	5.87E-01	378284.85	3757746.24	4.04E+00	378284.85	3757746.24	7.68E-02	378284.85	3757746.24	7.68E-02	378284.85	3757746.24	4.20E-01
378291.27	3757732.13	1.53E+00	378291.27	3757732.13	3.75E+00	378291.27	3757732.13	5.96E-01	378291.27	3757732.13	4.40E+00	378291.27	3757732.13	7.68E-02	378291.27	3757732.13	7.68E-02	378291.27	3757732.13	4.14E-01
378291.43	3756436.58	3.56E-01	378291.43	3756436.58	9.99E-01	378291.43	3756436.58	1.57E-01	378291.43	3756436.58	1.01E+00	378291.43	3756436.58	1.74E-02	378291.43	3756436.58	1.74E-02	378291.43	3756436.58	8.71E-02
378292.09	3756504.79	3.77E-01	378292.09	3756504.79	1.05E+00	378292.09	3756504.79	1.64E-01	378292.09	3756504.79	9.84E-01	378292.09	3756504.79	1.87E-02	378292.09	3756504.79	1.87E-02	378292.09	3756504.79	9.22E-02
378292.41	3753366.00	2.49E-01	378292.41	3753366.00	6.84E-01	378292.41	3753366.00	1.15E-01	378292.41	3753366.00	8.13E-01	378292.41	3753366.00	1.06E-02	378292.41	3753366.00	1.06E-02	378292.41	3753366.00	6.78E-02
378292.86	3756465.33	3.46E-01	378292.86	3756465.33	7.37E-01	378292.86	3756465.33	1.22E-01	378292.86	3756465.33	8.27E-01	378292.86	3756465.33	1.20E-02	378292.86	3756465.33	1.20E-02	378292.86	3756465.33	6.57E-02
378292.82	3755564.67	2.68E-01	378292.82	3755564.67	7.90E-01	378292.82	3755564.67	1.28E-01	378292.82	3755564.67	8.38E-01	378292.82	3755564.67	1.34E-02	378292.82	3755564.67	1.34E-02	378292.82	3755564.67	7.32E-02
378292.87	3755664.00	2.92E-01	378292.87	3755664.00	8.42E-01	378292.87	3755664.00	1.34E-01	378292.87	3755664.00	8.38E-01	378292.87	3755664.00	1.47E-02	378292.87	3755664.00	1.47E-02	378292.87	3755664.00	7.34E-02
378292.23	3755763.34	3.18E-01	378292.23	3755763.34	8.92E-01	378292.23	3755763.34	1.40E-01	378292.23	3755763.34	8.21E-01	378292.23	3755763.34	1.60E-02	378292.23	3755763.34	1.60E-02	378292.23	3755763.34	7.74E-02
378294.75	3759871.61	3.22E-01	378294.75	3759871.61	1.17E+00	378294.75	3759871.61	2.20E-01	378294.75	3759871.61	1.58E+00	378294.75	3759871.61	1.99E-02	378294.75	3759871.61	1.99E-02	378294.75	3759871.61	9.98E-02
378292.82	3755761.76	3.11E-01	378292.82	3755761.76	8.78E-01	378292.82	3755761.76	1.37E-01	378292.82	3755761.76	7.56E-01	378292.82	3755761.76	1.60E-02	378292.82	3755761.76	1.60E-02	378292.82	3755761.76	7.63E-02
378295.87	3757731.75	1.40E+00	378295.87	3757731.75	3.55E+00	378295.87	3757731.75	5.64E-01	378295.87	3757731.75	3.98E+00	378295.87	3757731.75	7.10E-02	378295.87	3757731.75	7.10E-02	378295.87	3757731.75	3.79E-01
378300.42	3756435.35	3.50E-01	378300.43	3756435.35	9.78E-01	378300.43	3756435.35	1.52E-01	378300.43	3756435.35	9.23E-01	378300.43	3756435.35	1.74E-02	378300.43	3756435.35	1.74E-02	378300.43	3756435.35	8.57E-02
378301.15	3756971.45	3.27E-01	378301.15	3756971.45	1.34E+00	378301.15	3756971.45	2.08E-01	378301.15	3756971.45	1.46E+00	378301.15	3756971.45	1.96E-02	378301.15	3756971.45	1.96E-02	378301.15	3756971.45	9.94E-02
378305.40	3757760.18	2.94E-01	378305.40	3757760.18	8.52E-01	378305.40	3757760.18	1.31E-01	378305.40	3757760.18	6.82E-01	378305.40	3757760.18	1.58E-02	378305.40	3757760.18	1.58E-02	378305.40	3757760.18	7.54E-02
378305.59	3755829.92	2.86E-01	378305.59	3755829.92	8.60E-01	378305.59	3755829.92	1.32E-01	378305.59	3755829.92	6.40E-01	378305.59	3755829.92	1.61E-02	378305.59	3755829.92	1.61E-02	378305.59	3755829.92	7.26E-02
378305.78	3757899.65	2.74E-01	378305.78	3757899.65	8.60E-01	378305.78	3757899.65	1.31E-01	378305.78	3757899.65	6.57E-01	378305.78	3757899.65	1.61E-02	378305.78	3757899.65	1.61E-02	378305.78	3757899.65	7.13E-02
378307.68	3757731.38	1.30E+00	378307.68	3757731.38	4.40E+00	378307.68	3757731.38	6.31E-01	378307.68	3757731.38	4.14E+00	378307.68	3757731.38	6.68E-02	378307.68	3757731.38	6.68E-02	378307.68	3757731.38	3.50E-01
378309.44	3756434.13	3.27E-01	378309.44	3756434.13	9.41E-01	378309.44	3756434.13	1.46E-01	378309.44	3756434.13	8.99E-01	378309.44	3756434.13	1.71E-02	378309.44	3756434.13	1.71E-02	378309.44	3756434.13	8.10E-02
378318.11	3758991.39	3.44E-01	378318.11	3758991.39	1.60E-01	378318.11	3758991.39	2.28E-01	378318.11	3758991.39	2.13E+00	378318.11	3758991.39	1.88E-02	378318.11	3758991.39	1.88E-02	378318.11	3758991.39	1.07E-01
378317.84	3757759.39	2.68E-01	378317.84	3757759.39	8.01E-01	378317.84	3757759.39	1.24E-01	378317.84	3757759.39	6.28E-01	378317.84	3757759.39	1.52E-02	378317.84	3757759.39	1.52E-02	378317.84	3757759.39	6.81E-02
378316.18	3758029.37	2.57E-01	378316.18	3758029.37	8.07E-01	378316.18	3758029.37	1.23E-01	378316.18	3758029.37	6.42E-01	378316.18	3758029.37	1.53E-02	378316.18	3758029.37	1.53E-02	378316.18	3758029.37	6.77E-02
378318.82	3758899.35	2.58E-01	378318.82	3758899.35	7.98E-01	378318.82	3758899.35	1.21E-01	378318.82	3758899.35	6.72E-01	378318.82	3758899.35	1.53E-02	378318.82	3758899.35	1.53E-02	378318.82	3758899.35	7.06E-02
378319.49	3757731.01	1.27E+00	378319.49	3757731.01	4.74E+00	378319.49	3757731.01	6.68E-01	378319.49	3757731.01	9.90E+00	378319.49	3757731.01	6.39E-02	378319.49	3757731.01	6.39E-02	378319.49	3757731.01	3.26E-01
378317.45	3756432.91	2.99E-01	378317.45	3756432.91	8.95E-01	378317.45	3756432.91	1.38E-01	378317.45	3756432.91	7.09E-01	378317.45	3756432.91	1.66E-02	378317.45	3756432.91	1.66E-02	378317.45	3756432.91	7.53E-02

LAX Landside Access Modernization Program Project, Final EIR



Pollutant: PM10 , Concentrations, Units: ug/m3 , Emissions Averaging: Peak Month Average Day , Averaging Period: 1 Hour

Emissions Source: Break Wear (G001)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Fugitive Dust (G003)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Tire Wear (G005)		
Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019
377317.76	3757954.26	1.61E+00	377317.76	3757954.26	4.14E+00	377317.76	3757954.26	6.19E-01	377317.76	3757954.26	3.19E+00	377317.76	3757954.26	3.19E-02	377317.76	3757954.26	3.19E-02	377317.76	3757954.26	1.68E-01
377317.47	3757986.09	1.27E+00	377317.47	3757986.09	3.76E+00	377317.47	3757986.09	5.73E-01	377317.47	3757986.09	2.65E+00	377317.47	3757986.09	2.65E-02	377317.47	3757986.09	2.65E-02	377317.47	3757986.09	1.39E-01
377320.04	3757297.08	2.41E+00	377320.04	3757297.08	8.67E+00	377320.04	3757297.08	1.55E+00	377320.04	3757297.08	1.74E+01	377320.04	3757297.08	1.74E-01	377320.04	3757297.08	1.74E-01	377320.04	3757297.08	7.07E-01
377320.86	3757379.92	2.80E+00	377320.86	3757379.92	1.04E+01	377320.86	3757379.92	1.88E+00	377320.86	3757379.92	2.17E+01	377320.86	3757379.92	1.44E-01	377320.86	3757379.92	1.44E-01	377320.86	3757379.92	8.63E-01
377321.97	3757210.00	1.81E+00	377321.97	3757210.00	6.07E+00	377321.97	3757210.00	1.10E+00	377321.97	3757210.00	9.77E+00	377321.97	3757210.00	1.08E-01	377321.97	3757210.00	1.08E-01	377321.97	3757210.00	4.78E-01
377324.87	3757985.25	1.04E+00	377324.87	3757985.25	3.38E+00	377324.87	3757985.25	5.06E-01	377324.87	3757985.25	5.09E+00	377324.87	3757985.25	6.67E-02	377324.87	3757985.25	6.67E-02	377324.87	3757985.25	3.27E-01
377325.94	3755402.89	5.06E-01	377325.94	3755402.89	1.17E+00	377325.94	3755402.89	1.85E-01	377325.94	3755402.89	1.39E+00	377325.94	3755402.89	2.13E-02	377325.94	3755402.89	2.13E-02	377325.94	3755402.89	1.32E-01
377328.45	3756962.36	1.46E+00	377328.45	3756962.36	1.20E+01	377328.45	3756962.36	1.77E+00	377328.45	3756962.36	2.39E+01	377328.45	3756962.36	1.69E-01	377328.45	3756962.36	1.69E-01	377328.45	3756962.36	6.24E-02
377327.69	3757208.66	1.77E+00	377327.69	3757208.66	5.86E+00	377327.69	3757208.66	1.01E+00	377327.69	3757208.66	9.89E+00	377327.69	3757208.66	1.16E-01	377327.69	3757208.66	1.16E-01	377327.69	3757208.66	1.16E-01
377331.27	3757984.41	1.46E+00	377331.27	3757984.41	2.75E+00	377331.27	3757984.41	4.02E-01	377331.27	3757984.41	1.59E+00	377331.27	3757984.41	1.59E-02	377331.27	3757984.41	1.59E-02	377331.27	3757984.41	5.32E-02
377348.54	3758024.62	6.88E-01	377348.54	3758024.62	2.31E+00	377348.54	3758024.62	3.19E-01	377348.54	3758024.62	1.54E+00	377348.54	3758024.62	4.09E-02	377348.54	3758024.62	4.09E-02	377348.54	3758024.62	2.07E-01
377351.62	3755401.81	5.08E-01	377351.62	3755401.81	1.05E+00	377351.62	3755401.81	1.73E-01	377351.62	3755401.81	1.04E+00	377351.62	3755401.81	2.09E-02	377351.62	3755401.81	2.09E-02	377351.62	3755401.81	1.32E-01
377356.75	3757207.46	2.02E+00	377356.75	3757207.46	5.78E+00	377356.75	3757207.46	9.14E-01	377356.75	3757207.46	5.98E+00	377356.75	3757207.46	1.19E-01	377356.75	3757207.46	1.19E-01	377356.75	3757207.46	5.11E-01
377356.89	3756960.85	1.88E+00	377356.89	3756960.85	1.56E+01	377356.89	3756960.85	3.08E+00	377356.89	3756960.85	3.75E+01	377356.89	3756960.85	7.45E-02	377356.89	3756960.85	7.45E-02	377356.89	3756960.85	6.12E-01
377402.37	3758061.24	6.31E-01	377402.37	3758061.24	1.66E+00	377402.37	3758061.24	4.86E-01	377402.37	3758061.24	2.42E+00	377402.37	3758061.24	3.28E-02	377402.37	3758061.24	3.28E-02	377402.37	3758061.24	1.88E-01
377437.81	3757206.27	2.21E+00	377437.81	3757206.27	6.99E+00	377437.81	3757206.27	9.62E-01	377437.81	3757206.27	5.16E+00	377437.81	3757206.27	1.23E-01	377437.81	3757206.27	1.23E-01	377437.81	3757206.27	5.59E-01
377447.31	3754400.73	4.37E-01	377447.31	3754400.73	9.70E-01	377447.31	3754400.73	1.49E-01	377447.31	3754400.73	7.60E-01	377447.31	3754400.73	1.93E-02	377447.31	3754400.73	1.93E-02	377447.31	3754400.73	1.15E-01
377455.33	3756959.34	2.04E+00	377455.33	3756959.34	1.40E+01	377455.33	3756959.34	2.77E+00	377455.33	3756959.34	3.05E+01	377455.33	3756959.34	8.53E-02	377455.33	3756959.34	8.53E-02	377455.33	3756959.34	6.53E-01
377474.09	3758110.88	8.08E-01	377474.09	3758110.88	1.66E+00	377474.09	3758110.88	2.48E-01	377474.09	3758110.88	1.31E+00	377474.09	3758110.88	3.83E-02	377474.09	3758110.88	3.83E-02	377474.09	3758110.88	2.48E-01
377518.87	3757205.07	2.07E+00	377518.87	3757205.07	7.05E+00	377518.87	3757205.07	9.80E-01	377518.87	3757205.07	8.31E+00	377518.87	3757205.07	1.24E-01	377518.87	3757205.07	1.24E-01	377518.87	3757205.07	5.82E-01
377537.39	3758154.69	9.28E-01	377537.39	3758154.69	1.76E+00	377537.39	3758154.69	2.65E-01	377537.39	3758154.69	1.39E+00	377537.39	3758154.69	4.09E-02	377537.39	3758154.69	4.09E-02	377537.39	3758154.69	2.66E-01
377542.99	3753399.65	4.15E-01	377542.99	3753399.65	8.75E-01	377542.99	3753399.65	1.32E-01	377542.99	3753399.65	1.72E-02	377542.99	3753399.65	1.72E-02	377542.99	3753399.65	1.72E-02	377542.99	3753399.65	1.08E-01
377599.93	3757203.87	2.24E+00	377599.93	3757203.87	6.68E+00	377599.93	3757203.87	8.97E-01	377599.93	3757203.87	5.43E+00	377599.93	3757203.87	1.26E-01	377599.93	3757203.87	1.26E-01	377599.93	3757203.87	5.67E-01
377600.70	3758198.51	5.93E-01	377600.70	3758198.51	1.46E+00	377600.70	3758198.51	2.46E-01	377600.70	3758198.51	1.33E+00	377600.70	3758198.51	3.42E-02	377600.70	3758198.51	3.42E-02	377600.70	3758198.51	1.82E-01
377613.52	3756957.47	1.44E+00	377613.52	3756957.47	7.66E+00	377613.52	3756957.47	1.47E+00	377613.52	3756957.47	1.66E+01	377613.52	3756957.47	6.44E-02	377613.52	3756957.47	6.44E-02	377613.52	3756957.47	4.55E-01
377638.68	3753398.58	4.03E-01	377638.68	3753398.58	8.07E-01	377638.68	3753398.58	1.43E-01	377638.68	3753398.58	6.43E-01	377638.68	3753398.58	1.65E-02	377638.68	3753398.58	1.65E-02	377638.68	3753398.58	1.05E-01
377652.22	3756956.31	1.33E+00	377652.22	3756956.31	6.81E+00	377652.22	3756956.31	1.31E+00	377652.22	3756956.31	1.50E+01	377652.22	3756956.31	6.02E-02	377652.22	3756956.31	6.02E-02	377652.22	3756956.31	4.18E-01
377664.00	3758242.33	4.33E-01	377664.00	3758242.33	1.34E+00	377664.00	3758242.33	1.99E-01	377664.00	3758242.33	1.29E+00	377664.00	3758242.33	2.29E-02	377664.00	3758242.33	2.29E-02	377664.00	3758242.33	1.19E-01
377678.83	3757376.47	6.36E+00	377678.83	3757376.47	1.53E+01	377678.83	3757376.47	2.35E+00	377678.83	3757376.47	9.60E+00	377678.83	3757376.47	3.14E-01	377678.83	3757376.47	3.14E-01	377678.83	3757376.47	1.42E+00
377680.99	3757202.68	1.54E+00	377680.99	3757202.68	5.92E+00	377680.99	3757202.68	8.12E-01	377680.99	3757202.68	5.66E+00	377680.99	3757202.68	9.52E-02	377680.99	3757202.68	9.52E-02	377680.99	3757202.68	4.50E-01
377683.71	3757291.78	1.31E+00	377683.71	3757291.78	3.37E+00	377683.71	3757291.78	1.14E+00	377683.71	3757291.78	8.98E+00	377683.71	3757291.78	1.44E-01	377683.71	3757291.78	1.44E-01	377683.71	3757291.78	9.85E-01
377734.36	3753397.50	3.85E-01	377734.36	3753397.50	7.61E-01	377734.36	3753397.50	1.32E-01	377734.36	3753397.50	6.17E-01	377734.36	3753397.50	1.59E-02	377734.36	3753397.50	1.59E-02	377734.36	3753397.50	1.01E-01
377750.66	3756954.80	1.08E+00	377750.66	3756954.80	5.23E+00	377750.66	3756954.80	1.00E+00	377750.66	3756954.80	5.34E+00	377750.66	3756954.80	5.34E-02	377750.66	3756954.80	5.34E-02	377750.66	3756954.80	3.37E-01
377767.81	3758230.27	4.99E-01	377767.81	3758230.27	1.20E+00	377767.81	3758230.27	1.97E-01	377767.81	3758230.27	1.42E+00	377767.81	3758230.27	2.39E-02	377767.81	3758230.27	2.39E-02	377767.81	3758230.27	1.02E-01
377801.04	3753399.23	3.78E-01	377801.04	3753399.23	1.46E-01	377801.04	3753399.23	1.30E-01	377801.04	3753399.23	1.56E-01	377801.04	3753399.23	1.51E-02	377801.04	3753399.23	1.51E-02	377801.04	3753399.23	9.91E-02
377812.25	3757364.20	8.29E+00	377812.25	3757364.20	3.39E+01	377812.25	3757364.20	4.29E+00	377812.25	3757364.20	2.72E+01	377812.25	3757364.20	3.52E-01	377812.25	3757364.20	3.52E-01	377812.25	3757364.20	2.37E+00
377825.62	3758161.92	4.75E-01	377825.62	3758161.92	1.31E+00	377825.62	3758161.92	2.31E-01	377825.62	3758161.92	2.50E+00	377825.62	3758161.92	2.60E-02	377825.62	3758161.92	2.60E-02	377825.62	3758161.92	1.22E-01
377849.10	3756953.29	8.92E-01	377849.10	3756953.29	4.19E+00	377849.10	3756953.29	8.00E-01	377849.10	3756953.29	8.78E+00	377849.10	3756953.29	4.28E-02	377849.10	3756953.29	4.28E-02	377849.10	3756953.29	2.75E-01
377866.03	3757363.09	4.08E+00	377866.03	3757363.09	2.19E+01	377866.03	3757363.09	2.85E+00	377866.03	3757363.09	2.29E+01	377866.03	3757363.09	2.54E-01	377866.03	3757363.09	2.54E-01	377866.03	3757363.09	1.14E+00
377867.72	3757400.96	1.53E-01	377867.72	3757400.96	7.41E-01	377867.72	3757400.96	1.29E-01	377867.72	3757400.96	6.02E-01	377867.72	3757400.96	1.58E-02	377867.72	3757400.96	1.58E-02	377867.72	3757400.96	9.34E-02
377895.02	3758039.68	5.22E-01	377895.02	3758039.68	1.15E+00	377895.02	3758039.68	3.20E-01	377895.02	3758039.68	1.36E+00	377895.02	3758039.68	3.10E-02	377895.02	3758039.68	3.10E-02	377895.02	3758039.68	1.27E-01
377898.90	3758134.17	4.96E-01	377898.90	3758134.17	1.41E+00	377898.90	3758134.17	2.46E-01	377898.90	3758134.17	1.65E+00	377898.90	3758134.17	2.66E-02	377898.90	3758134.17	2.66E-02	377898.90	3758134.17	1.52E-01
377909.58	3757435.59	1.49E+00	377909.58	3757435.59	6.21E+00	377

Pollutant: PM10 , Concentrations, Units: ug/m3 , Emissions Averaging: Peak Month Average Day , Averaging Period: 1 Hour

Emissions Source: Break Wear (G001)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Fugitive Dust (G003)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Tire Wear (G005)		
Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019
375641.00	3757883.00	8.33E-01	375641.00	3757883.00	2.34E+00	375641.00	3757883.00	3.70E-01	375641.00	3757883.00	1.96E+00	375641.00	3757883.00	4.29E-02	375641.00	3757883.00	1.45E-02	375641.00	3757883.00	4.29E-02	375641.00	3757883.00	2.27E-01
375641.00	3757983.00	5.95E-01	375641.00	3757983.00	1.71E+00	375641.00	3757983.00	2.75E-01	375641.00	3757983.00	3.24E+00	375641.00	3757983.00	3.48E-02	375641.00	3757983.00	1.45E-02	375641.00	3757983.00	3.06E-01	375641.00	3757983.00	1.63E-01
375687.89	3757980.08	6.09E-01	375687.89	3757980.08	1.75E+00	375687.89	3757980.08	2.80E-01	375687.89	3757980.08	2.58E+00	375687.89	3757980.08	3.49E-02	375687.89	3757980.08	1.49E-02	375687.89	3757980.08	3.49E-02	375687.89	3757980.08	1.66E-01
375900.00	3753500.00	1.32E-01	375900.00	3753500.00	3.52E-01	375900.00	3753500.00	5.00E-01	375900.00	3753500.00	5.32E-03	375900.00	3753500.00	5.32E-03	375900.00	3753500.00	2.21E-03	375900.00	3753500.00	5.32E-03	375900.00	3753500.00	3.57E-02
375900.00	3754500.00	1.78E-01	375900.00	3754500.00	5.14E-01	375900.00	3754500.00	8.18E-02	375900.00	3754500.00	4.87E-01	375900.00	3754500.00	8.85E-03	375900.00	3754500.00	3.68E-03	375900.00	3754500.00	8.85E-03	375900.00	3754500.00	4.53E-02
375900.00	3755500.00	1.75E-01	375900.00	3755500.00	5.24E-01	375900.00	3755500.00	8.57E-02	375900.00	3755500.00	5.75E-01	375900.00	3755500.00	8.40E-03	375900.00	3755500.00	3.49E-03	375900.00	3755500.00	8.40E-03	375900.00	3755500.00	4.30E-02
375900.00	3756500.00	2.08E-01	375900.00	3756500.00	6.73E-01	375900.00	3756500.00	9.89E-02	375900.00	3756500.00	8.76E-01	375900.00	3756500.00	9.08E-03	375900.00	3756500.00	3.77E-03	375900.00	3756500.00	9.08E-03	375900.00	3756500.00	5.94E-02
375900.00	3757500.00	5.62E-01	375900.00	3757500.00	2.84E+00	375900.00	3757500.00	4.45E-01	375900.00	3757500.00	3.37E+00	375900.00	3757500.00	3.45E-02	375900.00	3757500.00	1.45E-02	375900.00	3757500.00	3.37E-01	375900.00	3757500.00	1.53E-01
375900.00	3758500.00	1.81E-01	375900.00	3758500.00	1.43E+00	375900.00	3758500.00	2.20E-01	375900.00	3758500.00	1.18E+00	375900.00	3758500.00	1.66E-02	375900.00	3758500.00	1.66E-02	375900.00	3758500.00	1.66E-02	375900.00	3758500.00	5.18E-02
375900.00	3760500.00	1.70E-01	375900.00	3760500.00	4.49E-01	375900.00	3760500.00	7.89E-02	375900.00	3760500.00	3.84E-01	375900.00	3760500.00	8.04E-03	375900.00	3760500.00	8.04E-03	375900.00	3760500.00	8.04E-03	375900.00	3760500.00	4.72E-02
375900.00	3761500.00	1.91E-01	375900.00	3761500.00	4.26E-01	375900.00	3761500.00	7.33E-02	375900.00	3761500.00	3.50E-01	375900.00	3761500.00	8.34E-03	375900.00	3761500.00	8.34E-03	375900.00	3761500.00	8.34E-03	375900.00	3761500.00	5.33E-02
375900.00	3764500.00	8.45E-02	375900.00	3764500.00	2.18E-01	375900.00	3764500.00	3.76E-02	375900.00	3764500.00	2.08E-01	375900.00	3764500.00	3.94E-03	375900.00	3764500.00	3.94E-03	375900.00	3764500.00	3.94E-03	375900.00	3764500.00	2.32E-02
375900.00	3754500.00	1.20E-01	375900.00	3754500.00	3.61E-01	375900.00	3754500.00	6.07E-02	375900.00	3754500.00	4.22E-01	375900.00	3754500.00	5.30E-03	375900.00	3754500.00	2.20E-03	375900.00	3754500.00	5.30E-03	375900.00	3754500.00	3.48E-02
375900.00	3755500.00	1.62E-01	375900.00	3755500.00	4.31E-01	375900.00	3755500.00	6.62E-02	375900.00	3755500.00	4.14E-01	375900.00	3755500.00	6.75E-03	375900.00	3755500.00	6.75E-03	375900.00	3755500.00	6.75E-03	375900.00	3755500.00	4.51E-02
375900.00	3756500.00	1.56E-01	375900.00	3756500.00	3.71E-01	375900.00	3756500.00	6.44E-02	375900.00	3756500.00	4.32E-01	375900.00	3756500.00	6.02E-03	375900.00	3756500.00	2.50E-03	375900.00	3756500.00	6.02E-03	375900.00	3756500.00	3.71E-02
375900.00	3757500.00	3.14E-01	375900.00	3757500.00	1.48E+00	375900.00	3757500.00	2.41E-01	375900.00	3757500.00	1.69E+00	375900.00	3757500.00	1.92E-02	375900.00	3757500.00	1.92E-02	375900.00	3757500.00	1.92E-02	375900.00	3757500.00	8.93E-02
375900.00	3759500.00	2.80E-01	375900.00	3759500.00	1.32E+00	375900.00	3759500.00	2.13E-01	375900.00	3759500.00	1.21E+00	375900.00	3759500.00	1.91E-02	375900.00	3759500.00	1.91E-02	375900.00	3759500.00	1.91E-02	375900.00	3759500.00	8.13E-02
375900.00	3760500.00	1.89E-01	375900.00	3760500.00	5.81E-01	375900.00	3760500.00	1.02E-01	375900.00	3760500.00	4.03E-01	375900.00	3760500.00	1.11E-02	375900.00	3760500.00	1.11E-02	375900.00	3760500.00	1.11E-02	375900.00	3760500.00	5.13E-02
375900.00	3761500.00	1.80E-01	375900.00	3761500.00	4.10E-01	375900.00	3761500.00	7.12E-02	375900.00	3761500.00	3.67E-01	375900.00	3761500.00	7.45E-03	375900.00	3761500.00	7.45E-03	375900.00	3761500.00	7.45E-03	375900.00	3761500.00	4.98E-02
375900.00	3762500.00	1.21E-01	375900.00	3762500.00	2.98E-01	375900.00	3762500.00	5.16E-02	375900.00	3762500.00	2.58E-01	375900.00	3762500.00	5.31E-03	375900.00	3762500.00	5.31E-03	375900.00	3762500.00	5.31E-03	375900.00	3762500.00	3.39E-02
375900.00	3763500.00	8.52E-02	375900.00	3763500.00	1.83E-01	375900.00	3763500.00	3.11E-02	375900.00	3763500.00	1.62E-01	375900.00	3763500.00	3.76E-03	375900.00	3763500.00	3.76E-03	375900.00	3763500.00	3.76E-03	375900.00	3763500.00	2.27E-02
375900.00	3764500.00	5.50E-02	375900.00	3764500.00	1.72E-01	375900.00	3764500.00	3.05E-02	375900.00	3764500.00	1.92E-01	375900.00	3764500.00	2.70E-03	375900.00	3764500.00	2.70E-03	375900.00	3764500.00	2.70E-03	375900.00	3764500.00	1.71E-02
375913500.00		8.94E-02	375913500.00		2.78E-01	375913500.00		4.72E-02	375913500.00		3.25E-01	375913500.00		3.94E-03	375913500.00		3.94E-03	375913500.00		3.94E-03	375913500.00		2.53E-02
375915500.00		1.26E-01	375915500.00		3.10E-01	375915500.00		5.50E-02	375915500.00		3.64E-01	375915500.00		5.06E-03	375915500.00		5.06E-03	375915500.00		5.06E-03	375915500.00		3.71E-02
375916500.00		1.22E-01	375916500.00		2.86E-01	375916500.00		5.07E-02	375916500.00		3.38E-01	375916500.00		4.78E-03	375916500.00		4.78E-03	375916500.00		4.78E-03	375916500.00		3.49E-02
375920.00	3760500.00	4.01E-01	375920.00	3760500.00	1.26E+00	375920.00	3760500.00	2.08E-01	375920.00	3760500.00	1.39E+00	375920.00	3760500.00	2.04E-02	375920.00	3760500.00	2.04E-02	375920.00	3760500.00	2.04E-02	375920.00	3760500.00	1.12E-01
375915500.00		9.71E-02	375915500.00		2.73E-01	375915500.00		4.75E-02	375915500.00		2.89E-01	375915500.00		5.37E-03	375915500.00		5.37E-03	375915500.00		5.37E-03	375915500.00		2.62E-02
375925.00	3761500.00	1.46E-01	375925.00	3761500.00	3.34E-01	375925.00	3761500.00	5.81E-02	375925.00	3761500.00	3.00E-01	375925.00	3761500.00	6.02E-03	375925.00	3761500.00	6.02E-03	375925.00	3761500.00	6.02E-03	375925.00	3761500.00	4.03E-02
375930.00	3763500.00	9.94E-02	375930.00	3763500.00	2.81E-01	375930.00	3763500.00	4.91E-02	375930.00	3763500.00	2.48E-01	375930.00	3763500.00	4.49E-03	375930.00	3763500.00	4.49E-03	375930.00	3763500.00	4.49E-03	375930.00	3763500.00	2.70E-02
375940.00	3764500.00	5.37E-02	375940.00	3764500.00	1.23E-01	375940.00	3764500.00	2.17E-02	375940.00	3764500.00	1.34E-01	375940.00	3764500.00	2.10E-03	375940.00	3764500.00	2.10E-03	375940.00	3764500.00	2.10E-03	375940.00	3764500.00	1.51E-02
376084.62	3761776.42	8.99E-02	376084.62	3761776.42	2.47E-01	376084.62	3761776.42	3.98E-02	376084.62	3761776.42	2.74E-01	376084.62	3761776.42	4.11E-03	376084.62	3761776.42	4.11E-03	376084.62	3761776.42	4.11E-03	376084.62	3761776.42	2.33E-02
375900.00	3751500.00	8.56E-02	375900.00	3751500.00	2.28E-01	375900.00	3751500.00	4.07E-02	375900.00	3751500.00	2.44E-01	375900.00	3751500.00	3.60E-03	375900.00	3751500.00	3.60E-03	375900.00	3751500.00	3.60E-03	375900.00	3751500.00	2.46E-02
375900.00	3756500.00	1.02E-01	375900.00	3756500.00	2.34E-01	375900.00	3756500.00	4.15E-02	375900.00	3756500.00	2.71E-01	375900.00	3756500.00	3.91E-03	375900.00	3756500.00	3.91E-03	375900.00	3756500.00	3.91E-03	375900.00	3756500.00	2.59E-02
375900.00	3758500.00	2.13E-01	375900.00	3758500.00	7.61E-01	375900.00	3758500.00	1.22E-01	375900.00	3758500.00	4.77E-01	375900.00	3758500.00	1.46E-02	375900.00	3758500.00	1.46E-02	375900.00	3758500.00	1.46E-02	375900.00	3758500.00	5.75E-02
375900.00	3759500.00	1.67E-01	375900.00	3759500.00	4.35E-01	375900.00	3759500.00	7.61E-02	375900.00	3759500.00	4.62E-01	375900.00	3759500.00	6.91E-03	375900.00	3759500.00	6.91E-03	375900.00	3759500.00	6.91E-03	375900.00	3759500.00	4.86E-02
375900.00	3760500.00	1.24E-01	375900.00	3760500.00	5.70E-01	375900.00	3760500.00	8.80E-02	375900.00	3760500.00	7.20E-01	375900.00	3760500.00	5.85E-03	375900.00	3760500.00	5.85E-03	375900.00	3760500.00	5.85E-03	375900.00	3760500.00	3.52E-02
375900.00	3761500.00	2.93E-01	375900.00	3761500.00	9.15E-01	375900.00	3761500.00	1.55E-01	375900.00	3761500.00	9.96E-01	375900.00	3761500.00	1.57E-02	375900.00	3761500.00	1.57E-02	375900.00	3761500.00	1.57E-02	375900.00	3761500.00	1.08E-01
375900.00	3762500.00	6.83E-02	375900.00	3762500.00	2.02E-01	375900.00	3762500.00	3.43E-02	375900.00	3762500.00	2.17E-01	375900.00	3762500.00	3.29E-03	375900.00	3762500.00	3.29E-03	375900.00	3762500.00	3.29E-03	375900.00	3762500.00	1.77E-02
375900.00	3764500.00	4.89E-02	375900.00	3764500.00	1.20E-01	375900.00	3764500.00	2.13E-02	375900.00	3764500.00	1.34E-01	375900.00	3764500.00	2.00E-03	375900.00	3764500.00	2.00E-03	375900.00	3764500.00	2.00E-03	375900.00	3764500.00	1.38E-02
375900.00	3753500.00	7.40E-02	375900.00	3753500.00	1.70E-01	375900.00	3753500.00	3.00E-02	375900.00	3753500.00	1.90E-01	375900.00	3753500.00	2.88E-03	375900.00	3753500.00	2.88E-03	375900.00	3753500.00	2.88E-03	375900.00	3753500.00	2.12E-02
375900.00	3754500.00	7.58E-02	375900.00	3754500.00	1.78E-01	375900.00	3754500.00	3.14E-02	375900.00	3754500.00	1.90E-01	375900.00	3754500.00	3.14E-03	375900.00	3754500.00	3.14E-03	375900.00	3754500.00	3.14E-03	375900.00	3754500.00	2.15E-02
375900.00	3755500.00	1.14E-01	375900.00	3755500.00	2.06E-01	375900.00	3755500.00	3.20E-02	375900.00	3755500.00	1.90E-01	375900.00	3755500.00	3.34E-03	375900.00	3755500.00	3.34E-03	375900.00	3755500.00	3.34E-03	375900.00	3755500.00	1.37E-02
375900.00	3756500.00	1.54E-01	375900.00	3756500.00	3.85E-01	375900.00	3756500.00	6.71E-02	375900.00	3756500.00	3.94E-01	375900.00	3756500.00	6.29E-03	375900.00	3756500.00	6.29E-03	375900.00	3756500.00	6.29E-03	375900.00	3756500.00	4.39E-02
375900.00	3757500.00	1.40E-01	375900.00	3757500.00	3.74E-01	375900.00	3757500.00	6.70E-02	375900.00	3757500.00	4.21E-01	375900.00	3757500.00	5.94E-03	375900.00	3757500.00	5.94E-03	375900.00	3757500.00	5.94E-03	375900.00	3757500.00	4.04E-02
375900.00	3759500.00	1.43E-01	375900.00	3759500.00	4.25E-01	375900.00	3759500.00	6.94E-02	375900.00	3759500.00	4.36E-01	375900.00	3759500.00	6.60E-03	375900.00	3759500.00	6.60E-03	375900.00	3759500.00	6.60E-03	375900.00	3759500.00	3.93E-02

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10 , Concentrations, Units: ug/m3 , Emissions Averaging: Peak Month Average Day , Averaging Period: 1 Hour

Emissions Source: Break Wear (G001)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Fugitive Dust (G003)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Tire Wear (G005)		
Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019
377900.00	3760500.00	8.84E-02	377900.00	3760500.00	2.51E-01	377900.00	3760500.00	4.40E-02	377900.00	3760500.00	2.47E-01	377900.00	3760500.00	4.02E-03	377900.00	3760500.00	4.02E-03	377900.00	3760500.00	2.57E-02
377900.00	3761500.00	1.39E-01	377900.00	3761500.00	6.59E-01	377900.00	3761500.00	1.06E-01	377900.00	3761500.00	7.14E-01	377900.00	3761500.00	9.01E-03	377900.00	3761500.00	9.01E-03	377900.00	3761500.00	3.91E-02
377900.00	3762500.00	1.62E-01	377900.00	3762500.00	5.22E-01	377900.00	3762500.00	8.88E-02	377900.00	3762500.00	5.03E-01	377900.00	3762500.00	9.17E-03	377900.00	3762500.00	9.17E-03	377900.00	3762500.00	4.44E-02
377900.00	3763500.00	4.35E-02	377900.00	3763500.00	1.39E-01	377900.00	3763500.00	2.40E-02	377900.00	3763500.00	1.34E-01	377900.00	3763500.00	2.15E-03	377900.00	3763500.00	2.15E-03	377900.00	3763500.00	1.28E-02
377900.00	3764500.00	5.39E-02	377900.00	3764500.00	1.31E-01	377900.00	3764500.00	2.24E-02	377900.00	3764500.00	1.34E-01	377900.00	3764500.00	2.15E-03	377900.00	3764500.00	2.15E-03	377900.00	3764500.00	1.53E-02
378528.59	3764156.44	4.52E-02	378528.59	3764156.44	1.34E-01	378528.59	3764156.44	2.33E-02	378528.59	3764156.44	1.28E-01	378528.59	3764156.44	2.13E-03	378528.59	3764156.44	2.13E-03	378528.59	3764156.44	1.48E-02
377900.00	3753500.00	5.26E-02	377900.00	3753500.00	1.40E-01	377900.00	3753500.00	2.48E-02	377900.00	3753500.00	1.53E-01	377900.00	3753500.00	2.25E-03	377900.00	3753500.00	2.25E-03	377900.00	3753500.00	1.55E-02
377900.00	3755500.00	9.48E-02	377900.00	3755500.00	2.37E-01	377900.00	3755500.00	4.11E-02	377900.00	3755500.00	2.23E-01	377900.00	3755500.00	3.91E-03	377900.00	3755500.00	3.91E-03	377900.00	3755500.00	2.67E-02
377900.00	3756500.00	1.42E-01	377900.00	3756500.00	3.46E-01	377900.00	3756500.00	6.03E-02	377900.00	3756500.00	3.71E-01	377900.00	3756500.00	5.99E-03	377900.00	3756500.00	5.99E-03	377900.00	3756500.00	4.05E-02
377900.00	3757500.00	1.09E-01	377900.00	3757500.00	2.84E-01	377900.00	3757500.00	4.85E-02	377900.00	3757500.00	3.41E-01	377900.00	3757500.00	4.46E-03	377900.00	3757500.00	4.46E-03	377900.00	3757500.00	3.14E-02
377900.00	3758500.00	3.20E-01	377900.00	3758500.00	1.03E+00	377900.00	3758500.00	1.65E-01	377900.00	3758500.00	1.22E+00	377900.00	3758500.00	1.61E-02	377900.00	3758500.00	1.61E-02	377900.00	3758500.00	8.51E-02
377900.00	3759500.00	8.96E-02	377900.00	3759500.00	2.82E-01	377900.00	3759500.00	4.60E-02	377900.00	3759500.00	3.08E-01	377900.00	3759500.00	3.91E-03	377900.00	3759500.00	3.91E-03	377900.00	3759500.00	2.58E-02
377900.00	3760500.00	8.04E-02	377900.00	3760500.00	2.19E-01	377900.00	3760500.00	3.84E-02	377900.00	3760500.00	2.12E-01	377900.00	3760500.00	3.66E-03	377900.00	3760500.00	3.66E-03	377900.00	3760500.00	2.43E-02
377900.00	3762500.00	1.79E-01	377900.00	3762500.00	6.32E-01	377900.00	3762500.00	1.04E-01	377900.00	3762500.00	7.19E-01	377900.00	3762500.00	9.57E-03	377900.00	3762500.00	9.57E-03	377900.00	3762500.00	5.05E-02
377900.00	3763500.00	9.93E-02	377900.00	3763500.00	3.53E-01	377900.00	3763500.00	6.06E-02	377900.00	3763500.00	2.80E-01	377900.00	3763500.00	6.34E-03	377900.00	3763500.00	6.34E-03	377900.00	3763500.00	2.71E-02
377900.00	3764500.00	4.62E-02	377900.00	3764500.00	1.34E-01	377900.00	3764500.00	2.34E-02	377900.00	3764500.00	1.30E-01	377900.00	3764500.00	2.13E-03	377900.00	3764500.00	2.13E-03	377900.00	3764500.00	1.35E-02
378902.85	3757271.45	1.16E-01	378902.85	3757271.45	3.22E-01	378902.85	3757271.45	5.63E-02	378902.85	3757271.45	3.41E-01	378902.85	3757271.45	5.04E-03	378902.85	3757271.45	5.04E-03	378902.85	3757271.45	3.61E-02
377900.00	3754500.00	1.01E-01	377900.00	3754500.00	2.69E-01	377900.00	3754500.00	4.73E-02	377900.00	3754500.00	2.84E-01	377900.00	3754500.00	4.35E-03	377900.00	3754500.00	4.35E-03	377900.00	3754500.00	2.93E-02
377900.00	3755500.00	8.98E-02	377900.00	3755500.00	2.26E-01	377900.00	3755500.00	3.94E-02	377900.00	3755500.00	2.44E-01	377900.00	3755500.00	3.60E-03	377900.00	3755500.00	3.60E-03	377900.00	3755500.00	2.58E-02
377900.00	3756500.00	1.16E-01	377900.00	3756500.00	2.89E-01	377900.00	3756500.00	5.06E-02	377900.00	3756500.00	3.15E-01	377900.00	3756500.00	4.67E-03	377900.00	3756500.00	4.67E-03	377900.00	3756500.00	3.35E-02
377900.00	3757500.00	8.46E-02	377900.00	3757500.00	2.11E-01	377900.00	3757500.00	3.81E-02	377900.00	3757500.00	2.66E-01	377900.00	3757500.00	3.48E-03	377900.00	3757500.00	3.48E-03	377900.00	3757500.00	2.50E-02
377900.00	3758500.00	7.72E-02	377900.00	3758500.00	2.06E-01	377900.00	3758500.00	3.51E-02	377900.00	3758500.00	2.35E-01	377900.00	3758500.00	3.24E-03	377900.00	3758500.00	3.24E-03	377900.00	3758500.00	2.23E-02
377900.00	3760500.00	7.16E-02	377900.00	3760500.00	2.00E-01	377900.00	3760500.00	3.44E-02	377900.00	3760500.00	1.97E-01	377900.00	3760500.00	3.32E-03	377900.00	3760500.00	3.32E-03	377900.00	3760500.00	2.05E-02
377900.00	3761500.00	6.56E-02	377900.00	3761500.00	1.82E-01	377900.00	3761500.00	3.18E-02	377900.00	3761500.00	1.80E-01	377900.00	3761500.00	2.95E-03	377900.00	3761500.00	2.95E-03	377900.00	3761500.00	1.90E-02
377900.00	3762500.00	5.96E-02	377900.00	3762500.00	3.34E-01	377900.00	3762500.00	5.26E-02	377900.00	3762500.00	3.71E-01	377900.00	3762500.00	3.95E-03	377900.00	3762500.00	3.95E-03	377900.00	3762500.00	1.74E-02
377900.00	3763500.00	1.92E-01	377900.00	3763500.00	5.93E-01	377900.00	3763500.00	9.88E-02	377900.00	3763500.00	6.87E-01	377900.00	3763500.00	9.49E-03	377900.00	3763500.00	9.49E-03	377900.00	3763500.00	5.36E-02
377900.00	3764500.00	5.38E-02	377900.00	3764500.00	2.22E-01	377900.00	3764500.00	3.83E-02	377900.00	3764500.00	1.25E-01	377900.00	3764500.00	4.08E-03	377900.00	3764500.00	4.08E-03	377900.00	3764500.00	1.51E-02
381900.00	3753500.00	6.68E-02	381900.00	3753500.00	1.77E-01	381900.00	3753500.00	3.07E-02	381900.00	3753500.00	1.72E-01	381900.00	3753500.00	3.08E-03	381900.00	3753500.00	3.08E-03	381900.00	3753500.00	1.86E-02
381900.00	3754500.00	8.55E-02	381900.00	3754500.00	2.10E-01	381900.00	3754500.00	3.65E-02	381900.00	3754500.00	2.09E-01	381900.00	3754500.00	3.46E-03	381900.00	3754500.00	3.46E-03	381900.00	3754500.00	2.41E-02
381900.00	3755500.00	7.12E-02	381900.00	3755500.00	1.89E-01	381900.00	3755500.00	3.28E-02	381900.00	3755500.00	1.80E-01	381900.00	3755500.00	3.15E-03	381900.00	3755500.00	3.15E-03	381900.00	3755500.00	2.01E-02
381900.00	3756500.00	8.26E-02	381900.00	3756500.00	2.17E-01	381900.00	3756500.00	3.81E-02	381900.00	3756500.00	2.25E-01	381900.00	3756500.00	3.51E-03	381900.00	3756500.00	3.51E-03	381900.00	3756500.00	2.37E-02
381900.00	3757500.00	6.18E-02	381900.00	3757500.00	1.79E-01	381900.00	3757500.00	3.00E-02	381900.00	3757500.00	1.99E-01	381900.00	3757500.00	2.72E-03	381900.00	3757500.00	2.72E-03	381900.00	3757500.00	1.78E-02
381900.00	3758500.00	2.02E-01	381900.00	3758500.00	7.07E-01	381900.00	3758500.00	1.16E-01	381900.00	3758500.00	9.16E-01	381900.00	3758500.00	1.03E-02	381900.00	3758500.00	1.03E-02	381900.00	3758500.00	5.54E-02
381900.00	3759500.00	6.48E-02	381900.00	3759500.00	1.98E-01	381900.00	3759500.00	3.19E-02	381900.00	3759500.00	2.06E-01	381900.00	3759500.00	3.67E-03	381900.00	3759500.00	3.67E-03	381900.00	3759500.00	1.87E-02
381900.00	3760500.00	7.16E-02	381900.00	3760500.00	2.16E-01	381900.00	3760500.00	3.54E-02	381900.00	3760500.00	2.41E-01	381900.00	3760500.00	3.33E-03	381900.00	3760500.00	3.33E-03	381900.00	3760500.00	1.95E-02
381900.00	3761500.00	6.35E-02	381900.00	3761500.00	1.67E-01	381900.00	3761500.00	2.92E-02	381900.00	3761500.00	1.64E-01	381900.00	3761500.00	2.75E-03	381900.00	3761500.00	2.75E-03	381900.00	3761500.00	1.82E-02
381900.00	3762500.00	6.48E-02	381900.00	3762500.00	1.71E-01	381900.00	3762500.00	2.97E-02	381900.00	3762500.00	1.80E-01	381900.00	3762500.00	2.86E-03	381900.00	3762500.00	2.86E-03	381900.00	3762500.00	1.85E-02
381900.00	3763500.00	7.40E-02	381900.00	3763500.00	4.16E-01	381900.00	3763500.00

Pollutant: PM10 , Concentrations, Units: ug/m3 , Emissions Averaging: Peak Month Average Day , Averaging Period: 1 Hour

Emissions Source: Break Wear (G001)			Emissions Source: Diesel Exhaust (G002)		Emissions Source: Diesel Exhaust (G002)			Emissions Source: Fugitive Dust (G003)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Tire Wear (G005)		
Without Mitigation (no practical mitigation)			Without Mitigation		With Mitigation			Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019	2019_M	UTM X	UTM Y	2019
369456.98	3762567.48	9.01E-02	369456.98	3762567.48	2.58E-01	4.59E-02	369456.98	3762567.48	2.40E-01	369456.98	3762567.48	4.29E-03	369456.98	3762567.48	4.29E-03	3.69E-03	369456.98	3762567.48	2.47E-02
369504.00	3754702.08	3.96E-01	369504.00	3754702.08	7.93E-01	9.95E-02	369504.00	3754702.08	8.05E-01	369504.00	3754702.08	1.67E-02	369504.00	3754702.08	1.67E-02	1.43E-02	369504.00	3754702.08	1.04E-01
369767.91	3761150.98	1.52E-01	369767.91	3761150.98	3.23E-01	5.79E-02	369767.91	3761150.98	2.83E-01	369767.91	3761150.98	6.17E-03	369767.91	3761150.98	6.17E-03	5.31E-03	369767.91	3761150.98	4.03E-02
369809.34	3764567.65	6.77E-02	369809.34	3764567.65	1.59E-01	2.80E-02	369809.34	3764567.65	1.58E-01	369809.34	3764567.65	2.77E-03	369809.34	3764567.65	2.77E-03	2.38E-03	369809.34	3764567.65	1.87E-02
369845.18	3754154.97	4.62E-01	369845.18	3754154.97	9.80E-01	1.66E-01	369845.18	3754154.97	7.89E-01	369845.18	3754154.97	2.17E-02	369845.18	3754154.97	2.17E-02	1.86E-02	369845.18	3754154.97	1.22E-01
369848.41	3753976.49	3.08E-01	369848.41	3753976.49	7.27E-01	9.49E-02	369848.41	3753976.49	6.99E-01	369848.41	3753976.49	1.56E-02	369848.41	3753976.49	1.56E-02	1.34E-02	369848.41	3753976.49	8.12E-02
370097.88	3760134.31	2.61E-01	370097.88	3760134.31	5.71E-01	9.66E-02	370097.88	3760134.31	4.21E-01	370097.88	3760134.31	1.24E-02	370097.88	3760134.31	1.24E-02	1.06E-02	370097.88	3760134.31	6.94E-02
370150.95	3754699.75	4.15E-01	370150.95	3754699.75	8.99E-01	1.56E-01	370150.95	3754699.75	8.93E-01	370150.95	3754699.75	1.88E-02	370150.95	3754699.75	1.88E-02	1.61E-02	370150.95	3754699.75	1.10E-01
370192.96	3758860.70	4.23E-01	370192.96	3758860.70	1.46E+00	2.23E-01	370192.96	3758860.70	9.89E-01	370192.96	3758860.70	2.84E-02	370192.96	3758860.70	2.84E-02	2.43E-02	370192.96	3758860.70	1.04E-01
370243.17	3759622.98	3.26E-01	370243.17	3759622.98	7.17E-01	9.72E-02	370243.17	3759622.98	8.71E-01	370243.17	3759622.98	1.55E-02	370243.17	3759622.98	1.55E-02	1.33E-02	370243.17	3759622.98	8.65E-02
370245.20	3754243.12	1.35E-01	370245.20	3754243.12	7.40E-01	1.28E-01	370245.20	3754243.12	1.18E+00	370245.20	3754243.12	1.35E-02	370245.20	3754243.12	1.35E-02	1.15E-02	370245.20	3754243.12	1.50E-02
370290.74	3759464.60	2.57E-01	370290.74	3759464.60	6.91E-01	1.17E-01	370290.74	3759464.60	8.44E-01	370290.74	3759464.60	1.56E-02	370290.74	3759464.60	1.56E-02	1.33E-02	370290.74	3759464.60	6.89E-02
370308.78	3762239.97	8.53E-02	370308.78	3762239.97	2.27E-01	4.00E-02	370308.78	3762239.97	2.07E-01	370308.78	3762239.97	4.68E-03	370308.78	3762239.97	4.68E-03	4.00E-03	370308.78	3762239.97	2.42E-02
370614.80	3762181.53	8.44E-02	370614.80	3762181.53	2.29E-01	4.04E-02	370614.80	3762181.53	2.08E-01	370614.80	3762181.53	4.96E-03	370614.80	3762181.53	4.96E-03	4.24E-03	370614.80	3762181.53	2.41E-02
370625.96	3761759.08	7.36E-02	370625.96	3761759.08	1.72E-01	2.97E-02	370625.96	3761759.08	1.65E-01	370625.96	3761759.08	3.06E-03	370625.96	3761759.08	3.06E-03	2.62E-03	370625.96	3761759.08	2.05E-02
370723.56	3763867.78	6.61E-02	370723.56	3763867.78	1.68E-01	2.96E-02	370723.56	3763867.78	1.63E-01	370723.56	3763867.78	2.89E-03	370723.56	3763867.78	2.89E-03	2.47E-03	370723.56	3763867.78	1.88E-02
370968.58	3759443.63	6.94E-01	370968.58	3759443.63	1.19E-01	1.70E-02	370968.58	3759443.63	5.35E-01	370968.58	3759443.63	1.40E-02	370968.58	3759443.63	1.40E-02	1.20E-02	370968.58	3759443.63	7.76E-02
371139.14	3758179.30	5.31E-01	371139.14	3758179.30	1.97E+00	2.96E-01	371139.14	3758179.30	1.39E+00	371139.14	3758179.30	3.81E-02	371139.14	3758179.30	3.81E-02	3.26E-02	371139.14	3758179.30	1.46E-01
371516.05	3762577.75	3.32E-01	371516.05	3762577.75	5.96E-02	3.15E-05	371516.05	3762577.75	2.70E-01	371516.05	3762577.75	5.05E-03	371516.05	3762577.75	5.05E-03	4.32E-03	371516.05	3762577.75	2.58E-02
371712.40	3759371.61	1.92E-01	371712.40	3759371.61	5.05E-01	9.02E-02	371712.40	3759371.61	5.26E-01	371712.40	3759371.61	8.77E-03	371712.40	3759371.61	8.77E-03	7.51E-03	371712.40	3759371.61	5.16E-02
371973.81	3758892.65	1.31E-01	371973.81	3758892.65	1.12E-01	2.97E-03	371973.81	3758892.65	7.86E-01	371973.81	3758892.65	1.21E-02	371973.81	3758892.65	1.21E-02	1.03E-02	371973.81	3758892.65	7.58E-02
372687.72	3759513.01	2.10E-01	372687.72	3759513.01	8.15E-02	2.68E-02	372687.72	3759513.01	4.43E-01	372687.72	3759513.01	8.62E-03	372687.72	3759513.01	8.62E-03	7.25E-03	372687.72	3759513.01	5.70E-02
372943.49	3761051.66	1.28E-01	372943.49	3761051.66	3.66E-01	2.94E-02	372943.49	3761051.66	3.23E-01	372943.49	3761051.66	6.31E-03	372943.49	3761051.66	6.31E-03	5.31E-03	372943.49	3761051.66	3.51E-02
373546.52	3760907.48	1.77E-01	373546.52	3760907.48	4.56E-01	3.95E-02	373546.52	3760907.48	3.81E-01	373546.52	3760907.48	8.21E-03	373546.52	3760907.48	8.21E-03	6.91E-03	373546.52	3760907.48	4.93E-02
373716.60	3756503.93	2.18E-01	373716.60	3756503.93	7.46E-01	1.11E-01	373716.60	3756503.93	9.54E-01	373716.60	3756503.93	1.52E-02	373716.60	3756503.93	1.52E-02	1.28E-02	373716.60	3756503.93	6.23E-02
373758.20	3758043.23	4.51E-01	373758.20	3758043.23	1.43E+00	2.31E-01	373758.20	3758043.23	2.51E+00	373758.20	3758043.23	2.94E-02	373758.20	3758043.23	2.94E-02	2.48E-02	373758.20	3758043.23	1.23E-01
373781.58	3755802.14	2.29E-01	373781.58	3755802.14	6.13E-01	9.72E-02	373781.58	3755802.14	5.95E-01	373781.58	3755802.14	1.06E-02	373781.58	3755802.14	1.06E-02	8.97E-03	373781.58	3755802.14	6.34E-02
373814.20	3756040.57	2.11E-01	373814.20	3756040.57	6.55E-01	1.01E-01	373814.20	3756040.57	8.77E-01	373814.20	3756040.57	1.17E-02	373814.20	3756040.57	1.17E-02	9.87E-03	373814.20	3756040.57	9.49E-03
373990.06	3753826.14	1.32E-01	373990.06	3753826.14	4.17E-01	7.04E-02	373990.06	3753826.14	5.32E-01	373990.06	3753826.14	6.96E-03	373990.06	3753826.14	6.96E-03	5.90E-03	373990.06	3753826.14	3.67E-02
374057.73	3758196.51	2.38E-01	374057.73	3758196.51	1.49E-01	3.47E-03	374057.73	3758196.51	1.41E+00	374057.73	3758196.51	1.91E-02	374057.73	3758196.51	1.91E-02	1.62E-02	374057.73	3758196.51	6.51E-02
374270.95	3758673.42	1.59E-01	374270.95	3758673.42	1.18E+00	1.81E-01	374270.95	3758673.42	1.37E+00	374270.95	3758673.42	1.30E-02	374270.95	3758673.42	1.30E-02	1.10E-02	374270.95	3758673.42	4.54E-02
374561.05	3757642.94	5.37E-01	374561.05	3757642.94	2.14E+00	3.39E-01	374561.05	3757642.94	3.02E+00	374561.05	3757642.94	2.85E-02	374561.05	3757642.94	2.85E-02	2.42E-02	374561.05	3757642.94	1.44E-01
374688.84	3758184.90	1.42E-01	374688.84	3758184.90	1.08E+00	1.66E-01	374688.84	3758184.90	1.18E+00	374688.84	3758184.90	1.19E-02	374688.84	3758184.90	1.19E-02	1.01E-02	374688.84	3758184.90	3.99E-02
374693.96	3758983.17	1.41E-01	374693.96	3758983.17	1.08E+00	1.66E-01	374693.96	3758983.17	1.19E+00	374693.96	3758983.17	1.18E-02	374693.96	3758983.17	1.18E-02	1.00E-02	374693.96	3758983.17	3.98E-02
374717.46	3762574.39	1.21E-01	374717.46	3762574.39	4.42E-02	2.47E-05	374717.46	3762574.39	2.04E-01	374717.46	3762574.39	5.15E-03	374717.46	3762574.39	5.15E-03	4.41E-03	374717.46	3762574.39	3.24E-02
375503.80	3764537.77	5.21E-02	375503.80	3764537.77	1.42E-01	2.46E-02	375503.80	3764537.77	1.36E-01	375503.80	3764537.77	2.65E-03	375503.80	3764537.77	2.65E-03	2.14E-03	375503.80	3764537.77	1.44E-02
375614.97	3760555.10	1.61E-01	375614.97	3760555.10	1.19E+00	2.03E-01	375614.97	3760555.10	1.27E+00	375614.97	3760555.10	2.07E-02	375614.97	3760555.10	2.07E-02	1.67E-02	375614.97	3760555.10	9.91E-02
375718.04	3758204.95	4.22E-01	375718.04	3758204.95	1.34E+00	2.57E-01	375718.04	3758204.95	1.13E+00	375718.04	3758204.95	2.41E-02	375718.04	3758204.95	2.41E-02	1.95E-02	375718.04	3758204.95	1.14E-01
375902.79	3764940.52	4.79E-02	375902.79	3764940.52	1.10E-01	1.93E-02	375902.79	3764940.52	1.08E-01	375902.79	3764940.52	1.95E-03	375902.79	3764940.52	1.95E-03	1.58E-03	375902.79	3764940.52	1.33E-02
375908.38	3763918.71	1.05E-01	375908.38	3763918.71	2.47E-01	3.95E-02	375908.38	3763918.71	2.66E-01	375908.38	3763918.71	4.55E-03	375908.38	3763918.71	4.55E-03	3.68E-03	375908.38	3763918.71	2.88E-02
375920.60	3762083.89	3.10E-01	375920.60	3762083.89	5.46E-02	3.02E-05	375920.60	3762083.89	2.80E-01	375920.60	3762083.89	4.82E-03	375920.60	3762083.89	4.82E-03	4.12E-03	375920.60	3762083.89	3.24E-02
376709.15	3761838.48	1.36E-01	376709.15	3761838.48	4.16E-02	2.56E-05	376709.15	3761838.48	2.81E-01	376709.15	3761838.48	3.92E-03	376709.15	3761838.48	3.92E-03	3.35E-03	376709.15	3761838.48	2.66E-02
376814.39	3754856.21	9.34E-02	376814.39	3754856.21	2.23E-01	3.92E-02	376814.39	3754856.21	2.37E-01	376814.39	3754856.21	3.92E-03	376814.39	3754856.21	3.92E-03	3.35E-03	376814.39	3754856.21	2.66E-02
377050.15	3761774.29	2.33E-01	377050.15	3761774.29	7.56E-01	1.29E-01	377050.15	3761774.29	7.38E-01	377050.15	3761774.29	1.31E-02	377050.15	3761774.29	1.31E-02	1.12E-02	377050.15	3761774.29	6.39E-02
377052.34	3761911.90	1.89E-01	377052.34	3761911.90	6.28E-01	1.08E-01	377052.34	3761911.90	5.42E-01	377052.34	3761911.90	1.13E-02	377052.34	3761911.90	1.13E-02	9.68E-03	377052.34	3761911.90	5.17E-02

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10 , Concentrations, Units: ug/m3 , Emissions Averaging: Peak Month Average Day , Averaging Period: 1 Hour

Emissions Source: Break Wear (G001)			Emissions Source: Diesel Exhaust (G002)		Emissions Source: Diesel Exhaust (G002)			Emissions Source: Fugitive Dust (G003)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Tire Wear (G005)		
Without Mitigation (no practical mitigation)			Without Mitigation		With Mitigation			Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019	2019_M	UTM X	UTM Y	2019
381900.00	3762500.00	6.46E-02	381900.00	3762500.00	1.98E-01	3.18E-02	381900.00	3762500.00	2.93E-02	381900.00	3762500.00	1.73E-01	381900.00	3762500.00	1.73E-01	1.42E-01	381900.00	3762500.00	1.87E-01
381900.00	3763500.00	6.22E-02	381900.00	3763500.00	1.58E-01	3.81E-02	381900.00	3763500.00	2.96E-02	381900.00	3763500.00	2.74E-02	381900.00	3763500.00	2.74E-02	2.26E-02	381900.00	3763500.00	1.34E-01
382900.00	3764500.00	1.15E-01	382900.00	3764500.00	4.66E-01	8.19E-02	382900.00	3764500.00	7.60E-02	382900.00	3764500.00	5.42E-01	382900.00	3764500.00	5.42E-01	4.47E-01	382900.00	3764500.00	3.20E-02
382900.00	3753500.00	5.08E-02	382900.00	3753500.00	1.37E-01	3.98E-02	382900.00	3753500.00	2.42E-02	382900.00	3753500.00	2.38E-02	382900.00	3753500.00	2.38E-02	1.96E-02	382900.00	3753500.00	1.45E-02
382900.00	3754500.00	3.56E-02	382900.00	3754500.00	8.90E-02	2.82E-02	382900.00	3754500.00	1.56E-02	382900.00	3754500.00	1.00E-01	382900.00	3754500.00	1.00E-01	8.12E-02	382900.00	3754500.00	1.04E-02
382900.00	3755500.00	3.71E-02	382900.00	3755500.00	8.52E-02	2.80E-02	382900.00	3755500.00	1.51E-02	382900.00	3755500.00	1.04E-01	382900.00	3755500.00	1.04E-01	8.44E-02	382900.00	3755500.00	1.08E-02
382900.00	3756500.00	4.31E-02	382900.00	3756500.00	1.02E-01	2.80E-02	382900.00	3756500.00	1.80E-02	382900.00	3756500.00	1.19E-01	382900.00	3756500.00	1.19E-01	9.63E-02	382900.00	3756500.00	1.25E-02
382900.00	3757500.00	4.03E-02	382900.00	3757500.00	1.21E-01	3.05E-02	382900.00	3757500.00	1.99E-02	382900.00	3757500.00	1.32E-01	382900.00	3757500.00	1.32E-01	1.07E-01	382900.00	3757500.00	1.17E-02
382900.00	3758500.00	1.17E-01	382900.00	3758500.00	4.61E-01	8.19E-02	382900.00	3758500.00	7.69E-02	382900.00	3758500.00	5.55E-01	382900.00	3758500.00	5.55E-01	4.58E-01	382900.00	3758500.00	3.28E-02
382900.00	3759500.00	9.12E-02	382900.00	3759500.00	3.53E-01	5.93E-02	382900.00	3759500.00	5.70E-02	382900.00	3759500.00	2.83E-01	382900.00	3759500.00	2.83E-01	2.33E-01	382900.00	3759500.00	2.47E-02
382900.00	3760500.00	5.21E-02	382900.00	3760500.00	1.35E-01	3.80E-02	382900.00	3760500.00	2.36E-02	382900.00	3760500.00	1.60E-01	382900.00	3760500.00	1.60E-01	1.32E-01	382900.00	3760500.00	1.50E-02
382900.00	3761500.00	6.46E-02	382900.00	3761500.00	1.65E-01	3.89E-02	382900.00	3761500.00	2.89E-02	382900.00	3761500.00	1.73E-01	382900.00	3761500.00	1.73E-01	1.42E-01	382900.00	3761500.00	1.86E-02
382900.00	3762500.00	5.27E-02	382900.00	3762500.00	1.41E-01	3.89E-02	382900.00	3762500.00	2.46E-02	382900.00	3762500.00	1.29E-01	382900.00	3762500.00	1.29E-01	1.06E-01	382900.00	3762500.00	2.42E-02
382900.00	3763500.00	6.16E-02	382900.00	3763500.00	1.55E-01	3.82E-02	382900.00	3763500.00	2.71E-02	382900.00	3763500.00	1.60E-01	382900.00	3763500.00	1.60E-01	1.31E-01	382900.00	3763500.00	1.75E-02
382900.00	3764500.00	6.48E-02	382900.00	3764500.00	2.04E-01	3.82E-02	382900.00	3764500.00	3.21E-02	382900.00	3764500.00	2.07E-01	382900.00	3764500.00	2.07E-01	1.70E-01	382900.00	3764500.00	1.86E-02
382900.00	3753500.00	4.14E-02	383900.00	3753500.00	9.78E-02	3.81E-02	383900.00	3753500.00	1.73E-02	383900.00	3753500.00	1.13E-01	383900.00	3753500.00	1.13E-01	9.25E-02	383900.00	3753500.00	1.20E-02
383900.00	3754500.00	2.84E-02	383900.00	3754500.00	7.27E-02	3.80E-02	383900.00	3754500.00	1.29E-02	383900.00	3754500.00	8.20E-02	383900.00	3754500.00	8.20E-02	6.54E-02	383900.00	3754500.00	8.34E-03
383900.00	3755500.00	3.38E-02	383900.00	3755500.00	7.96E-02	3.81E-02	383900.00	3755500.00	1.41E-02	383900.00	3755500.00	9.05E-02	383900.00	3755500.00	9.05E-02	7.36E-02	383900.00	3755500.00	9.73E-03
383900.00	3756500.00	3.86E-02	383900.00	3756500.00	9.17E-02	3.80E-02	383900.00	3756500.00	1.62E-02	383900.00	3756500.00	1.06E-01	383900.00	3756500.00	1.06E-01	8.63E-02	383900.00	3756500.00	1.12E-02
383900.00	3757500.00	3.54E-02	383900.00	3757500.00	9.97E-02	3.80E-02	383900.00	3757500.00	1.64E-02	383900.00	3757500.00	1.15E-01	383900.00	3757500.00	1.15E-01	9.35E-02	383900.00	3757500.00	1.03E-02
383900.00	3758500.00	6.16E-02	383900.00	3758500.00	1.54E-01	3.80E-02	383900.00	3758500.00	2.69E-02	383900.00	3758500.00	1.58E-01	383900.00	3758500.00	1.58E-01	1.30E-01	383900.00	3758500.00	1.76E-02
383900.00	3763500.00	5.97E-02	383900.00	3763500.00	1.50E-01	3.80E-02	383900.00	3763500.00	2.62E-02	383900.00	3763500.00	1.60E-01	383900.00	3763500.00	1.60E-01	1.30E-01	383900.00	3763500.00	2.43E-02
383900.00	3764500.00	6.00E-02	383900.00	3764500.00	1.47E-01	3.81E-02	383900.00	3764500.00	2.56E-02	383900.00	3764500.00	1.62E-01	383900.00	3764500.00	1.62E-01	1.31E-01	383900.00	3764500.00	2.42E-02
384900.00	3753500.00	3.37E-02	384900.00	3753500.00	8.63E-02	3.84E-02	384900.00	3753500.00	1.51E-02	384900.00	3753500.00	9.65E-02	384900.00	3753500.00	9.65E-02	7.85E-02	384900.00	3753500.00	9.88E-03
384900.00	3754500.00	2.70E-02	384900.00	3754500.00	6.37E-02	3.84E-02	384900.00	3754500.00	1.12E-02	384900.00	3754500.00	7.45E-02	384900.00	3754500.00	7.45E-02	6.06E-02	384900.00	3754500.00	7.73E-03
384900.00	3755500.00	3.13E-02	384900.00	3755500.00	7.48E-02	3.84E-02	384900.00	3755500.00	1.32E-02	384900.00	3755500.00	8.36E-02	384900.00	3755500.00	8.36E-02	6.80E-02	384900.00	3755500.00	8.98E-03
384900.00	3756500.00	3.47E-02	384900.00	3756500.00	8.28E-02	3.84E-02	384900.00	3756500.00	1.47E-02	384900.00	3756500.00	9.59E-02	384900.00	3756500.00	9.59E-02	7.80E-02	384900.00	3756500.00	1.01E-02
384900.00	3757500.00	3.27E-02	384900.00	3757500.00	8.69E-02	3.84E-02	384900.00	3757500.00	1.41E-02	384900.00	3757500.00	1.01E-01	384900.00	3757500.00	1.01E-01	8.21E-02	384900.00	3757500.00	9.49E-03
384900.00	3758500.00	6.47E-02	384900.00	3758500.00	2.97E-01	3.84E-02	384900.00	3758500.00	4.98E-02	384900.00	3758500.00	3.07E-01	384900.00	3758500.00	3.07E-01	2.49E-01	384900.00	3758500.00	1.83E-02
384900.00	3759500.00	1.31E-01	384900.00	3759500.00	4.22E-01	3.84E-02	384900.00	3759500.00	6.84E-02	384900.00	3759500.00	4.81E-01	384900.00	3759500.00	4.81E-01	3.95E-01	384900.00	3759500.00	3.55E-02
384900.00	3760500.00	4.71E-02	384900.00	3760500.00	1.26E-01	3.84E-02	384900.00	3760500.00	2.21E-02	384900.00	3760500.00	1.46E-01	384900.00	3760500.00	1.46E-01	1.20E-01	384900.00	3760500.00	1.36E-02
384900.00	3761500.00	4.91E-02	384900.00	3761500.00	1.39E-01	3.84E-02	384900.00	3761500.00	2.28E-02	384900.00	3761500.00	1.56E-01	384900.00	3761500.00	1.56E-01	1.28E-01	384900.00	3761500.00	1.42E-02
384900.00	3762500.00	4.80E-02	384900.00	3762500.00	1.34E-01	3.84E-02	384900.00	3762500.00	2.34E-02	384900.00	3762500.00	1.59E-01	384900.00	3762500.00	1.59E-01	1.30E-01	384900.00	3762500.00	2.22E-02
384900.00	3763500.00	3.74E-02	384900.00	3763500.00	1.13E-01	3.84E-02	384900.00	3763500.00	1.96E-02	384900.00	3763500.00	1.04E-01	384900.00	3763500.00	1.04E-01	8.49E-02	384900.00	3763500.00	1.91E-02
384900.00	3764500.00	5.63E-02	384900.00	3764500.00	1.39E-01	3.84E-02	384900.00	3764500.00	2.42E-02	384900.00	3764500.00	1.45E-01	384900.00	3764500.00	1.45E-01	1.19E-01	384900.00	3764500.00	2.31E-02
371641.00	3756983.00	1.29E+00	371641.00	3756983.00	6.54E+00	7.41E-01	371641.00	3756983.00	1.25E+00	371641.00	3756983.00	1.29E+01	371641.00	3756983.00	1.29E+01	1.06E+01	371641.00	3756983.00	6.40E-02
371741.00	3756983.00	1.13E+00	371741.00	3756983.00	5.27E+00	7.41E-01	371741.00	3756983.00	1.01E+00	371741.00	3756983.00	1.14E+01	371741.00	3756983.00	1.14E+01	9.41E-01	371741.00	3756983.00	5.70E-02
371841.00	3756983.00	9.74E-01	371841.00	3756983.00	4.34E+00	7.41E-01	371841.00	3756983.00	8.28E-01	371841.00	3756983.00	9.26E+00	371841.00	3756983.00	9.26E+00	7.65E-01	371841.00	3756983.00	4.66E-02
371941.00	3756983.00	1.10E+00	371941.00	3756983.00	3.65E+00	7.41E-01	371941.00	3756983.00	6.94E-01	371941.00	3756983.00	7.63E+00	371941.00	3756983.00	7.63E+00	6.31E-01	371941.00	3756983.00	3.89E-02
371941.00	3757683.00	4.12E+00	371941.00	3757683.00	8.39E+00	1.28E+00	371941.00	3757683.00	1.28E+00	371941.00	3757683.00	7.00E+00	371941.00	3757683.00	7.00E+00	5.79E-01	371941.00	3757683.00	2.23E-01
372041.00	3756983.00	1.23E+00	372041.00	3756983.00	3.46E+00	7.41E-01	372041.00	3756983.00	5.20E-01	372041.00	3756983.00	6.34E+00	372041.00	3756983.00	6.34E+00	5.24E-01	372041.00	3756983.00	2.80E-01
372141.00	3756983.00	1.34E+00	372141.00	3756983.00	3.27E+00	7.41E-01	372141.00	3756983.00	5.11E-01	372141.00	3756983.00	5.31E+00	372141.00	3756983.00	5.31E+00	4.39E-01	372141.00	3756983.00	3.38E-01
372241.00	3756983.00	8.61E-01	372241.00	3756983.00	2.45E+00	7.22E-01	372241.00	3756983.00	4.53E-01	372241.00	3756983.00	4.50E+00	372241.00	3756983.00	4.14E-02	3.42E-03	372241.00	3756983.00	4.14E-02
372341.00	3756983.00	8.18E-01	372341.00	3756983.00	2.27E+00	7.32E-01	372341.00	3756983.00	4.30E-01	372341.00	3756983.00	4.80E+00	372341.00	3756983.00	3.83E-02	3.16E-03	372341.00	3756983.00	3.83E-02
372441.00	3756983.00	6.02E-01	372441.00	3756983.00	1.95E+00	7.24E-01	372441.00	3756983.00	3.62E-01	372441.00	3756983.00	3.32E+00	372441.00	3756983.00	3.34E-02	2.76E-03	372441.00	3756983.00	3.34E-02

Construction_HHRA_Inputs_PM10_Acute.xlsx January 2019 1-Hr

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM

Pollutant: PM10 , Concentrations, Units: ug/m3 , Emissions Averaging: Peak Month Average Day , Averaging Period: 1 Hour

Emissions Source: Break Wear (G001)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Fugitive Dust (G003)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Tire Wear (G005)		
Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019
372641.00	3757883.00	6.30E-09	372641.00	3757883.00	3.29E+00	372641.00	3757883.00	5.12E-01	372641.00	3757883.00	2.67E+00	372641.00	3757883.00	5.67E-02	372641.00	3757883.00	5.67E-02	372641.00	3757883.00	1.74E-01
372641.00	3757983.00	1.31E+00	372641.00	3757983.00	4.42E+00	372641.00	3757983.00	6.88E-01	372641.00	3757983.00	3.85E+00	372641.00	3757983.00	7.61E-02	372641.00	3757983.00	7.61E-02	372641.00	3757983.00	3.83E-01
372741.00	3757683.00	1.74E+00	372741.00	3757683.00	4.60E+00	372741.00	3757683.00	7.29E-01	372741.00	3757683.00	7.56E+00	372741.00	3757683.00	9.30E-02	372741.00	3757683.00	9.30E-02	372741.00	3757683.00	4.67E-01
372741.00	3757783.00	1.69E+00	372741.00	3757783.00	3.80E+00	372741.00	3757783.00	6.09E-01	372741.00	3757783.00	3.12E+00	372741.00	3757783.00	8.63E-02	372741.00	3757783.00	8.63E-02	372741.00	3757783.00	4.71E-01
372741.00	3757883.00	7.56E-01	372741.00	3757883.00	2.38E+00	372741.00	3757883.00	3.86E-01	372741.00	3757883.00	2.13E+00	372741.00	3757883.00	5.74E-02	372741.00	3757883.00	5.74E-02	372741.00	3757883.00	2.10E-01
372741.00	3757983.00	6.97E-01	372741.00	3757983.00	3.33E+00	372741.00	3757983.00	5.20E-01	372741.00	3757983.00	2.81E+00	372741.00	3757983.00	5.28E-02	372741.00	3757983.00	5.28E-02	372741.00	3757983.00	2.03E-01
372841.00	3757783.00	1.56E+00	372841.00	3757783.00	3.57E+00	372841.00	3757783.00	5.71E-01	372841.00	3757783.00	3.28E+00	372841.00	3757783.00	7.83E-02	372841.00	3757783.00	7.83E-02	372841.00	3757783.00	4.31E-01
372841.00	3757883.00	8.42E-01	372841.00	3757883.00	2.41E+00	372841.00	3757883.00	3.90E-01	372841.00	3757883.00	2.26E+00	372841.00	3757883.00	5.67E-02	372841.00	3757883.00	5.67E-02	372841.00	3757883.00	2.34E-01
372841.00	3757983.00	4.51E-01	372841.00	3757983.00	2.45E+00	372841.00	3757983.00	3.87E-01	372841.00	3757983.00	2.04E+00	372841.00	3757983.00	3.98E-02	372841.00	3757983.00	3.98E-02	372841.00	3757983.00	1.21E-01
372843.75	3756668.92	3.85E-01	372843.75	3756668.92	1.18E+00	372843.75	3756668.92	1.81E-01	372843.75	3756668.92	1.63E+00	372843.75	3756668.92	2.14E-02	372843.75	3756668.92	2.14E-02	372843.75	3756668.92	9.59E-02
372857.79	3756854.91	3.29E-01	372857.79	3756854.91	1.07E+00	372857.79	3756854.91	1.69E-01	372857.79	3756854.91	2.32E+00	372857.79	3756854.91	2.11E-02	372857.79	3756854.91	2.11E-02	372857.79	3756854.91	9.66E-02
372900.00	3758500.00	8.77E-01	372900.00	3758500.00	2.71E+00	372900.00	3758500.00	4.52E-01	372900.00	3758500.00	2.92E+00	372900.00	3758500.00	5.00E-02	372900.00	3758500.00	5.00E-02	372900.00	3758500.00	2.36E-01
372900.00	3763500.00	6.71E-02	372900.00	3763500.00	2.00E-01	372900.00	3763500.00	3.18E-02	372900.00	3763500.00	1.64E-01	372900.00	3763500.00	3.44E-03	372900.00	3763500.00	3.44E-03	372900.00	3763500.00	1.64E-02
372900.00	3764500.00	5.88E-02	372900.00	3764500.00	2.04E-01	372900.00	3764500.00	3.55E-02	372900.00	3764500.00	2.22E-01	372900.00	3764500.00	3.38E-03	372900.00	3764500.00	3.38E-03	372900.00	3764500.00	1.70E-02
372941.00	3757783.00	1.44E+00	372941.00	3757783.00	3.34E+00	372941.00	3757783.00	5.34E-01	372941.00	3757783.00	3.53E+00	372941.00	3757783.00	7.14E-02	372941.00	3757783.00	7.14E-02	372941.00	3757783.00	3.95E-01
372941.00	3757883.00	8.94E-01	372941.00	3757883.00	2.41E+00	372941.00	3757883.00	3.89E-01	372941.00	3757883.00	2.33E+00	372941.00	3757883.00	5.51E-02	372941.00	3757883.00	5.51E-02	372941.00	3757883.00	2.48E-01
372941.00	3757983.00	4.55E-01	372941.00	3757983.00	1.84E+00	372941.00	3757983.00	2.93E-01	372941.00	3757983.00	1.71E+00	372941.00	3757983.00	3.32E-02	372941.00	3757983.00	3.32E-02	372941.00	3757983.00	1.23E-01
373035.50	3755453.68	2.48E-01	373035.50	3755453.68	7.53E-01	373035.50	3755453.68	1.22E-01	373035.50	3755453.68	7.86E-01	373035.50	3755453.68	1.28E-02	373035.50	3755453.68	1.28E-02	373035.50	3755453.68	6.61E-02
373035.50	3756552.82	2.96E-01	373035.50	3756552.82	8.32E-01	373035.50	3756552.82	1.30E-01	373035.50	3756552.82	7.55E-01	373035.50	3756552.82	1.90E-02	373035.50	3756552.82	1.90E-02	373035.50	3756552.82	7.26E-02
373041.00	3757783.00	1.31E+00	373041.00	3757783.00	3.17E+00	373041.00	3757783.00	5.05E-01	373041.00	3757783.00	2.91E+00	373041.00	3757783.00	6.58E-02	373041.00	3757783.00	6.58E-02	373041.00	3757783.00	3.64E-01
373041.00	3757883.00	9.20E-01	373041.00	3757883.00	2.38E+00	373041.00	3757883.00	3.84E-01	373041.00	3757883.00	2.36E+00	373041.00	3757883.00	5.32E-02	373041.00	3757883.00	5.32E-02	373041.00	3757883.00	2.54E-01
373041.00	3757983.00	4.39E-01	373041.00	3757983.00	1.55E+00	373041.00	3757983.00	2.49E-01	373041.00	3757983.00	1.78E+00	373041.00	3757983.00	3.47E-02	373041.00	3757983.00	3.47E-02	373041.00	3757983.00	1.18E-01
373141.00	3757783.00	1.24E+00	373141.00	3757783.00	3.67E+00	373141.00	3757783.00	5.29E-01	373141.00	3757783.00	3.95E+00	373141.00	3757783.00	6.14E-02	373141.00	3757783.00	6.14E-02	373141.00	3757783.00	3.36E-01
373141.00	3757883.00	9.26E-01	373141.00	3757883.00	2.35E+00	373141.00	3757883.00	3.77E-01	373141.00	3757883.00	1.80E+00	373141.00	3757883.00	5.11E-02	373141.00	3757883.00	5.11E-02	373141.00	3757883.00	2.55E-01
373141.00	3757983.00	4.24E-01	373141.00	3757983.00	1.57E+00	373141.00	3757983.00	2.53E-01	373141.00	3757983.00	1.38E+00	373141.00	3757983.00	3.55E-02	373141.00	3757983.00	3.55E-02	373141.00	3757983.00	1.16E-01
373241.00	3757783.00	1.15E+00	373241.00	3757783.00	3.71E+00	373241.00	3757783.00	5.25E-01	373241.00	3757783.00	8.03E+00	373241.00	3757783.00	5.81E-02	373241.00	3757783.00	5.81E-02	373241.00	3757783.00	3.12E-01
373241.00	3757883.00	9.19E-01	373241.00	3757883.00	2.68E+00	373241.00	3757883.00	3.92E-01	373241.00	3757883.00	2.70E+00	373241.00	3757883.00	4.90E-02	373241.00	3757883.00	4.90E-02	373241.00	3757883.00	2.52E-01
373241.00	3757983.00	4.78E-01	373241.00	3757983.00	1.86E+00	373241.00	3757983.00	2.84E-01	373241.00	3757983.00	1.35E+00	373241.00	3757983.00	3.59E-02	373241.00	3757983.00	3.59E-02	373241.00	3757983.00	1.31E-01
373247.31	3756833.85	2.84E-01	373247.31	3756833.85	1.22E+00	373247.31	3756833.85	1.75E-01	373247.31	3756833.85	2.07E+00	373247.31	3756833.85	1.64E-02	373247.31	3756833.85	1.64E-02	373247.31	3756833.85	8.67E-02
373250.82	3756554.89	2.81E-01	373250.82	3756554.89	9.27E-01	373250.82	3756554.89	1.36E-01	373250.82	3756554.89	8.12E-01	373250.82	3756554.89	1.61E-02	373250.82	3756554.89	1.61E-02	373250.82	3756554.89	8.08E-02
373258.92	3756458.54	2.58E-01	373258.92	3756458.54	7.33E-01	373258.92	3756458.54	1.14E-01	373258.92	3756458.54	6.99E-01	373258.92	3756458.54	1.34E-02	373258.92	3756458.54	1.34E-02	373258.92	3756458.54	6.51E-02
373278.35	3755947.97	2.39E-01	373278.35	3755947.97	7.33E-01	373278.35	3755947.97	1.12E-01	373278.35	3755947.97	6.07E-01	373278.35	3755947.97	1.39E-02	373278.35	3755947.97	1.39E-02	373278.35	3755947.97	6.31E-02
373341.00	3757783.00	1.08E+00	373341.00	3757783.00	3.07E+00	373341.00	3757783.00	4.83E-01	373341.00	3757783.00	6.37E+00	373341.00	3757783.00	5.58E-02	373341.00	3757783.00	5.58E-02	373341.00	3757783.00	2.92E-01
373341.00	3757883.00	9.04E-01	373341.00	3757883.00	2.76E+00	373341.00	3757883.00	3.96E-01	373341.00	3757883.00	5.17E+00	373341.00	3757883.00	4.72E-02	373341.00	3757883.00	4.72E-02	373341.00	3757883.00	2.48E-01
373341.00	3757983.00	5.21E-01	373341.00	3757983.00	2.16E+00	373341.00	3757983.00	3.20E-01	373341.00	3757983.00	2.01E+00	373341.00	3757983.00	3.58E-02	373341.00	3757983.00	3.58E-02	373341.00	3757983.00	1.43E-01
373441.00	3757083.00	2.77E-01	373441.00	3757083.00	1.07E+00	373441.00	3757083.00	1.97E-01	373441.00	3757083.00	2.32E+00	373441.00	3757083.00	1.48E-02	373441.00	3757083.00	1.48E-02	373441.00	3757083.00	8.25E-02
373441.00	3757183.00	3.25E-01	373441.00	3757183.00	1.31E+00	373441.00	3757183.00	2.36E-01	373441.00	3757183.00	1.95E+00	373441.00	3757183.00	1.98E-02	373441.00	3757183.00	1.98E-02	373441.00	3757183.00	9.69E-02
373441.00	3757283.00	3.62E-01	373441.00	3757283.00	1.77E+00	373441.00	3757283.00	3.04E-01	373441.00	3757283.00	1.98E+00	373441.00	3757283.00	2.20E-02	373441.00	3757283.00	2.20E-02	373441.00	3757283.00	1.08E-01
373441.00	3757383.00	4.49E-01	373441.00	3757383.00	2.90E+00	373441.00	3757383.00	4.63E-01	373441.00	3757383.00	2.16E+00	373441.00	3757383.00	3.41E-02	373441.00	3757383.00	3.41E-02	373441.00	3757383.00	1.32E-01
373441.00	3757483.00	8.37E-01	373441.00	3757483.00	4.65E+00	373441.00	3757483.00	7.05E-01	373441.00	3757483.00	5.86E+00	373441.00	3757483.00	5.09E-02	373441.00	3757483.00	5.09E-02	373441.00	3757483.00	2.18E-01
373900.00	3759500.00	3.43E-01	373900.00	3759500.00	1.12E+00	373900.00	3759500.00	1.91E-01	373900.00	3759500.00	1.11E+00	373900.00	3759500.00	2.01E-02	373900.00	3759500.00	2.01E-02	373900.00	3759500.00	9.32E-02
373900.00	3762500.00	1.04E-01	373900.00	3762500.00	2.15E-01	373900.00	3762500.00	3.68E-02	373900.00	3762500.00	2.57E-01	373900.00	3762500.00	4.31E-03	373900.00	3762500.00	4.31E-03	373900.00	3762500.00	2.79E-02
373900.00	3763500.00	9.38E-02	373900.00	3763500.00	2.73E-01	373900.00	3763500.00	4.74E-02	373900.00	3763500.00	2.23E-01	373900.00	3763500.00	4.75E-03	373900.00	3763500.00	4.75E-03	373900.00	3763500.00	2.69E-02
374900.00	3758500.00	1.26E-01	374900.00	3758500.00	3.71E-01	374900.00	3758500.00	5.80E-02	374900.00	3758500.00	3.04E-01	374900.00	3758500.00	6.20E-03	374900.00	3758500.00	6.20E-03	374900.00	3758500.00	3.45E-02
374900.00	3758500.00	1.90E-01	374900.00	3758500.00	6.28E-01	374900.00	3758500.00	1.01E-01	374900.00	3758500.00	5.46E-01	374900.00	3758500.00	1.02E-02	374900.00	3758500.00	1.02E-02	374900.00	3758500.00	5.19E-02

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10 , Concentrations, Units: ug/m3 , Emissions Averaging: Peak Month Average Day , Averaging Period: 1 Hour

Emissions Source: Break Wear (G001)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Fugitive Dust (G003)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Tire Wear (G005)		
Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019
375900.00	3754500.00	1.05E-01	375900.00	3754500.00	3.26E-01	375900.00	3754500.00	5.06E-02	375900.00	3754500.00	3.34E-01	375900.00	3754500.00	5.12E-03	375900.00	3754500.00	5.12E-03	375900.00	3754500.00	3.00E-02
375900.00	3757500.00	1.99E-01	375900.00	3757500.00	9.37E-01	375900.00	3757500.00	1.56E-01	375900.00	3757500.00	1.05E+00	375900.00	3757500.00	1.25E-02	375900.00	3757500.00	1.25E-02	375900.00	3757500.00	5.72E-02
375900.00	3758500.00	1.55E-01	375900.00	3758500.00	4.90E-01	375900.00	3758500.00	7.91E-02	375900.00	3758500.00	5.44E-01	375900.00	3758500.00	9.86E-03	375900.00	3758500.00	9.86E-03	375900.00	3758500.00	4.47E-02
375900.00	3759500.00	1.41E-01	375900.00	3759500.00	4.24E-01	375900.00	3759500.00	7.43E-02	375900.00	3759500.00	5.99E-01	375900.00	3759500.00	6.55E-03	375900.00	3759500.00	6.55E-03	375900.00	3759500.00	4.17E-02
376900.00	3753500.00	8.51E-02	376900.00	3753500.00	2.61E-01	376900.00	3753500.00	4.16E-02	376900.00	3753500.00	2.85E-01	376900.00	3753500.00	4.00E-03	376900.00	3753500.00	4.00E-03	376900.00	3753500.00	2.28E-02
376900.00	3754500.00	8.25E-02	376900.00	3754500.00	1.90E-01	376900.00	3754500.00	3.36E-02	376900.00	3754500.00	2.14E-01	376900.00	3754500.00	3.20E-03	376900.00	3754500.00	3.20E-03	376900.00	3754500.00	2.36E-02
376900.00	3757500.00	1.38E-01	376900.00	3757500.00	6.11E-01	376900.00	3757500.00	1.08E-01	376900.00	3757500.00	6.34E-01	376900.00	3757500.00	7.74E-03	376900.00	3757500.00	7.74E-03	376900.00	3757500.00	3.99E-02
376900.00	3763500.00	7.42E-02	376900.00	3763500.00	1.98E-01	376900.00	3763500.00	3.48E-02	376900.00	3763500.00	1.76E-01	376900.00	3763500.00	3.90E-03	376900.00	3763500.00	3.90E-03	376900.00	3763500.00	2.08E-02
377900.00	3758500.00	3.09E-01	377900.00	3758500.00	9.86E-01	377900.00	3758500.00	1.57E-01	377900.00	3758500.00	9.23E-01	377900.00	3758500.00	1.67E-02	377900.00	3758500.00	1.67E-02	377900.00	3758500.00	8.26E-02
378900.00	3754500.00	1.08E-01	378900.00	3754500.00	2.76E-01	378900.00	3754500.00	4.83E-02	378900.00	3754500.00	2.51E-01	378900.00	3754500.00	4.81E-03	378900.00	3754500.00	4.81E-03	378900.00	3754500.00	3.01E-02
378900.00	3761500.00	6.95E-02	378900.00	3761500.00	2.29E-01	378900.00	3761500.00	3.53E-02	378900.00	3761500.00	2.27E-01	378900.00	3761500.00	3.25E-03	378900.00	3761500.00	3.25E-03	378900.00	3761500.00	1.99E-02
379900.00	3753500.00	5.09E-02	379900.00	3753500.00	1.17E-01	379900.00	3753500.00	2.06E-02	379900.00	3753500.00	1.36E-01	379900.00	3753500.00	1.96E-03	379900.00	3753500.00	1.96E-03	379900.00	3753500.00	1.47E-02
379900.00	3758500.00	2.74E-01	379900.00	3758500.00	9.24E-01	379900.00	3758500.00	1.50E-01	379900.00	3758500.00	1.19E+00	379900.00	3758500.00	1.37E-02	379900.00	3758500.00	1.37E-02	379900.00	3758500.00	7.40E-02
380900.00	3764500.00	1.61E-01	380900.00	3764500.00	4.84E-01	380900.00	3764500.00	8.16E-02	380900.00	3764500.00	5.31E-01	380900.00	3764500.00	8.08E-03	380900.00	3764500.00	8.08E-03	380900.00	3764500.00	4.46E-02
381900.00	3753500.00	6.20E-02	381900.00	3753500.00	1.65E-01	381900.00	3753500.00	2.89E-02	381900.00	3753500.00	1.65E-01	381900.00	3753500.00	2.71E-03	381900.00	3753500.00	2.71E-03	381900.00	3753500.00	1.78E-02
381900.00	3758500.00	1.57E-01	381900.00	3758500.00	5.86E-01	381900.00	3758500.00	9.68E-02	381900.00	3758500.00	7.36E-01	381900.00	3758500.00	8.40E-03	381900.00	3758500.00	8.40E-03	381900.00	3758500.00	4.37E-02
383900.00	3758500.00	8.73E-02	383900.00	3758500.00	3.72E-01	383900.00	3758500.00	6.20E-02	383900.00	3758500.00	4.17E-01	383900.00	3758500.00	5.27E-03	383900.00	3758500.00	5.27E-03	383900.00	3758500.00	2.45E-02
383900.00	3759500.00	1.16E-01	383900.00	3759500.00	3.98E-01	383900.00	3759500.00	6.44E-02	383900.00	3759500.00	3.94E-01	383900.00	3759500.00	6.48E-03	383900.00	3759500.00	6.48E-03	383900.00	3759500.00	3.13E-02
383900.00	3760500.00	4.99E-02	383900.00	3760500.00	1.29E-01	383900.00	3760500.00	2.25E-02	383900.00	3760500.00	1.46E-01	383900.00	3760500.00	2.08E-03	383900.00	3760500.00	2.08E-03	383900.00	3760500.00	1.44E-02
383900.00	3761500.00	6.03E-02	383900.00	3761500.00	1.74E-01	383900.00	3761500.00	2.86E-02	383900.00	3761500.00	2.07E-01	383900.00	3761500.00	2.67E-03	383900.00	3761500.00	2.67E-03	383900.00	3761500.00	1.64E-02

Construction_HHRA_Inputs_PM10_Acute.xlsx January 2019 1-Hr

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10 , Concentrations, Units: ug/m3 , Emissions Averaging: Peak Month Average Day , Averaging Period: 1 Hour

Emissions Source: Break Wear (G001)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Fugitive Dust (G003)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Tire Wear (G005)		
Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019
372141.00	3757183.00	1.26E+00	372141.00	3757183.00	3.91E+00	372141.00	3757183.00	5.64E-01	372141.00	3757183.00	3.60E+00	372141.00	3757183.00	6.21E-02	372141.00	3757183.00	6.21E-02	372141.00	3757183.00	3.15E-01
372141.00	3757283.00	9.75E-01	372141.00	3757283.00	3.22E+00	372141.00	3757283.00	4.53E-01	372141.00	3757283.00	4.01E+00	372141.00	3757283.00	4.82E-02	372141.00	3757283.00	4.82E-02	372141.00	3757283.00	2.30E-01
372141.00	3757783.00	7.26E+00	372141.00	3757783.00	1.75E+01	372141.00	3757783.00	2.70E+00	372141.00	3757783.00	1.16E+01	372141.00	3757783.00	4.11E-01	372141.00	3757783.00	4.11E-01	372141.00	3757783.00	2.15E+00
372141.00	3757883.00	1.55E+00	372141.00	3757883.00	5.85E+00	372141.00	3757883.00	9.85E-01	372141.00	3757883.00	5.45E+00	372141.00	3757883.00	1.15E-01	372141.00	3757883.00	1.15E-01	372141.00	3757883.00	3.86E-01
372141.00	3757983.00	1.37E+00	372141.00	3757983.00	3.95E+00	372141.00	3757983.00	7.04E-01	372141.00	3757983.00	5.33E+00	372141.00	3757983.00	7.79E-02	372141.00	3757983.00	7.79E-02	372141.00	3757983.00	3.45E-01
372241.00	3757083.00	1.00E+00	372241.00	3757083.00	2.88E+00	372241.00	3757083.00	4.73E-01	372241.00	3757083.00	4.72E+00	372241.00	3757083.00	4.76E-02	372241.00	3757083.00	4.76E-02	372241.00	3757083.00	2.44E-01
372241.00	3757183.00	7.60E-01	372241.00	3757183.00	2.72E+00	372241.00	3757183.00	4.15E-01	372241.00	3757183.00	4.77E+00	372241.00	3757183.00	4.34E-02	372241.00	3757183.00	4.34E-02	372241.00	3757183.00	1.77E-01
372241.00	3757283.00	7.86E-01	372241.00	3757283.00	2.74E+00	372241.00	3757283.00	4.18E-01	372241.00	3757283.00	4.87E+00	372241.00	3757283.00	3.77E-02	372241.00	3757283.00	3.77E-02	372241.00	3757283.00	1.86E-01
372241.00	3757483.00	2.36E+00	372241.00	3757483.00	8.86E+00	372241.00	3757483.00	1.31E+00	372241.00	3757483.00	8.63E+00	372241.00	3757483.00	1.24E-01	372241.00	3757483.00	1.24E-01	372241.00	3757483.00	6.63E-01
372241.00	3757583.00	2.38E+00	372241.00	3757583.00	8.55E+00	372241.00	3757583.00	1.33E+00	372241.00	3757583.00	6.62E+00	372241.00	3757583.00	1.61E-01	372241.00	3757583.00	1.61E-01	372241.00	3757583.00	5.88E-01
372241.00	3757683.00	5.90E+00	372241.00	3757683.00	1.96E+01	372241.00	3757683.00	1.83E+00	372241.00	3757683.00	2.29E+00	372241.00	3757683.00	3.03E-01	372241.00	3757683.00	3.03E-01	372241.00	3757683.00	1.59E+00
372241.00	3757783.00	5.35E+00	372241.00	3757783.00	1.29E+01	372241.00	3757783.00	1.96E+00	372241.00	3757783.00	9.58E+00	372241.00	3757783.00	2.75E-01	372241.00	3757783.00	2.75E-01	372241.00	3757783.00	1.59E+00
372341.00	3757083.00	6.44E-01	372341.00	3757083.00	2.51E+00	372341.00	3757083.00	4.34E-01	372341.00	3757083.00	4.47E+00	372341.00	3757083.00	3.81E-02	372341.00	3757083.00	3.81E-02	372341.00	3757083.00	1.89E-01
372341.00	3757183.00	7.06E-01	372341.00	3757183.00	2.92E+00	372341.00	3757183.00	4.23E-01	372341.00	3757183.00	4.88E+00	372341.00	3757183.00	3.39E-02	372341.00	3757183.00	3.39E-02	372341.00	3757183.00	2.17E-01
372341.00	3757283.00	1.12E+00	372341.00	3757283.00	3.74E+00	372341.00	3757283.00	5.45E-01	372341.00	3757283.00	5.21E+00	372341.00	3757283.00	4.52E-02	372341.00	3757283.00	4.52E-02	372341.00	3757283.00	3.38E-01
372341.00	3757383.00	1.15E+00	372341.00	3757383.00	4.49E+00	372341.00	3757383.00	7.05E-01	372341.00	3757383.00	4.68E+00	372341.00	3757383.00	5.90E-02	372341.00	3757383.00	5.90E-02	372341.00	3757383.00	3.42E-01
372341.00	3757483.00	1.79E+00	372341.00	3757483.00	7.00E+00	372341.00	3757483.00	1.06E+00	372341.00	3757483.00	8.97E+00	372341.00	3757483.00	9.95E-02	372341.00	3757483.00	9.95E-02	372341.00	3757483.00	4.71E-01
372341.00	3757583.00	2.05E+00	372341.00	3757583.00	7.51E+00	372341.00	3757583.00	1.16E+00	372341.00	3757583.00	6.41E+00	372341.00	3757583.00	1.37E-01	372341.00	3757583.00	1.37E-01	372341.00	3757583.00	5.22E-01
372341.00	3757683.00	1.79E+00	372341.00	3757683.00	8.29E+00	372341.00	3757683.00	1.31E+00	372341.00	3757683.00	6.36E+00	372341.00	3757683.00	2.03E-01	372341.00	3757683.00	2.03E-01	372341.00	3757683.00	1.07E+00
372341.00	3757783.00	2.33E+00	372341.00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10 , Concentrations, Units: ug/m3 , Emissions Averaging: Peak Month Average Day , Averaging Period: 8 Hours

Emissions Source: Break Wear (G001)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Fugitive Dust (G003)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Tire Wear (G005)		
Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019
367539.80	3758164.78	1.10E-01	367539.80	3758164.78	2.73E-01	367539.80	3758164.78	4.78E-02	367539.80	3758164.78	2.48E-01	367539.80	3758164.78	4.94E-03	367539.80	3758164.78	4.94E-03	367539.80	3758164.78	3.03E-02
367552.20	3755429.80	1.39E-01	367552.20	3755429.80	3.51E-01	367552.20	3755429.80	6.10E-02	367552.20	3755429.80	2.97E-01	367552.20	3755429.80	6.57E-03	367552.20	3755429.80	6.57E-03	367552.20	3755429.80	3.82E-02
367596.95	3751879.64	1.08E-01	367596.95	3751879.64	2.77E-01	367596.95	3751879.64	4.86E-02	367596.95	3751879.64	2.48E-01	367596.95	3751879.64	4.94E-03	367596.95	3751879.64	4.94E-03	367596.95	3751879.64	3.01E-02
367628.79	3751855.59	1.12E-01	367628.79	3751855.59	2.83E-01	367628.79	3751855.59	4.96E-02	367628.79	3751855.59	2.52E-01	367628.79	3751855.59	5.08E-03	367628.79	3751855.59	5.08E-03	367628.79	3751855.59	3.10E-02
367639.51	3755428.89	1.52E-01	367639.51	3755428.89	3.78E-01	367639.51	3755428.89	6.57E-02	367639.51	3755428.89	3.32E-01	367639.51	3755428.89	7.03E-03	367639.51	3755428.89	7.03E-03	367639.51	3755428.89	4.20E-02
367696.39	3757845.44	1.13E-01	367696.39	3757845.44	2.90E-01	367696.39	3757845.44	5.10E-02	367696.39	3757845.44	2.59E-01	367696.39	3757845.44	5.19E-03	367696.39	3757845.44	5.19E-03	367696.39	3757845.44	3.14E-02
367700.81	3758169.46	9.01E-02	367700.81	3758169.46	2.24E-01	367700.81	3758169.46	3.84E-02	367700.81	3758169.46	1.77E-01	367700.81	3758169.46	4.17E-03	367700.81	3758169.46	4.17E-03	367700.81	3758169.46	2.42E-02
367707.57	3757896.37	1.01E-01	367707.57	3757896.37	2.81E-01	367707.57	3757896.37	4.95E-02	367707.57	3757896.37	2.52E-01	367707.57	3757896.37	4.89E-03	367707.57	3757896.37	4.89E-03	367707.57	3757896.37	2.96E-02
367726.83	3755427.97	1.62E-01	367726.83	3755427.97	4.02E-01	367726.83	3755427.97	6.99E-02	367726.83	3755427.97	3.62E-01	367726.83	3755427.97	7.41E-03	367726.83	3755427.97	7.41E-03	367726.83	3755427.97	4.48E-02
367734.79	3758105.67	9.00E-02	367734.79	3758105.67	2.35E-01	367734.79	3758105.67	4.01E-02	367734.79	3758105.67	1.91E-01	367734.79	3758105.67	4.40E-03	367734.79	3758105.67	4.40E-03	367734.79	3758105.67	2.66E-02
367743.72	3758010.21	2.46E-01	367743.72	3758010.21	4.37E-01	367743.72	3758010.21	7.59E-02	367743.72	3758010.21	4.37E-01	367743.72	3758010.21	4.57E-03	367743.72	3758010.21	4.57E-03	367743.72	3758010.21	2.76E-02
367785.33	3758200.53	1.03E-01	367785.33	3758200.53	2.63E-01	367785.33	3758200.53	4.54E-02	367785.33	3758200.53	1.96E-01	367785.33	3758200.53	5.14E-03	367785.33	3758200.53	5.14E-03	367785.33	3758200.53	2.75E-02
367814.14	3754427.06	1.67E-01	367814.14	3754427.06	4.23E-01	367814.14	3754427.06	7.35E-02	367814.14	3754427.06	3.86E-01	367814.14	3754427.06	7.72E-03	367814.14	3754427.06	7.72E-03	367814.14	3754427.06	4.65E-02
367830.31	3758150.13	9.57E-02	367830.31	3758150.13	2.37E-01	367830.31	3758150.13	4.07E-02	367830.31	3758150.13	1.93E-01	367830.31	3758150.13	4.37E-03	367830.31	3758150.13	4.37E-03	367830.31	3758150.13	2.58E-02
367839.73	3758178.15	1.04E-01	367839.73	3758178.15	2.68E-01	367839.73	3758178.15	4.63E-02	367839.73	3758178.15	1.99E-01	367839.73	3758178.15	5.23E-03	367839.73	3758178.15	5.23E-03	367839.73	3758178.15	2.78E-02
367874.18	3755433.41	1.69E-01	367874.18	3755433.41	4.35E-01	367874.18	3755433.41	7.57E-02	367874.18	3755433.41	3.99E-01	367874.18	3755433.41	7.91E-03	367874.18	3755433.41	7.91E-03	367874.18	3755433.41	4.73E-02
367912.80	3758112.41	1.16E-01	367912.80	3758112.41	2.91E-01	367912.80	3758112.41	5.00E-02	367912.80	3758112.41	2.17E-01	367912.80	3758112.41	5.75E-03	367912.80	3758112.41	5.75E-03	367912.80	3758112.41	3.10E-02
367934.21	3755439.76	1.69E-01	367934.21	3755439.76	4.43E-01	367934.21	3755439.76	7.71E-02	367934.21	3755439.76	4.07E-01	367934.21	3755439.76	8.00E-03	367934.21	3755439.76	8.00E-03	367934.21	3755439.76	4.73E-02
368001.74	3755450.16	1.68E-01	368001.74	3755450.16	4.53E-01	368001.74	3755450.16	7.89E-02	368001.74	3755450.16	4.15E-01	368001.74	3755450.16	8.12E-03	368001.74	3755450.16	8.12E-03	368001.74	3755450.16	4.73E-02
368067.33	3758044.68	1.24E-01	368067.33	3758044.68	3.23E-01	368067.33	3758044.68	5.50E-02	368067.33	3758044.68	2.51E-01	368067.33	3758044.68	6.23E-03	368067.33	3758044.68	6.23E-03	368067.33	3758044.68	3.30E-02
368069.28	3754560.56	1.68E-01	368069.28	3754560.56	4.65E-01	368069.28	3754560.56	8.09E-02	368069.28	3754560.56	4.23E-01	368069.28	3754560.56	8.25E-03	368069.28	3754560.56	8.25E-03	368069.28	3754560.56	4.71E-02
368136.81	3754770.96	1.62E-01	368136.81	3754770.96	4.71E-01	368136.81	3754770.96	8.20E-02	368136.81	3754770.96	4.25E-01	368136.81	3754770.96	8.29E-03	368136.81	3754770.96	8.29E-03	368136.81	3754770.96	4.62E-02
368139.37	3758014.68	1.08E-01	368139.37	3758014.68	2.89E-01	368139.37	3758014.68	4.91E-02	368139.37	3758014.68	2.47E-01	368139.37	3758014.68	5.28E-03	368139.37	3758014.68	5.28E-03	368139.37	3758014.68	2.93E-02
368217.94	3754778.59	1.58E-01	368217.94	3754778.59	4.73E-01	368217.94	3754778.59	8.25E-02	368217.94	3754778.59	4.23E-01	368217.94	3754778.59	8.60E-03	368217.94	3754778.59	8.60E-03	368217.94	3754778.59	4.45E-02
368226.20	3757984.68	1.20E-01	368226.20	3757984.68	3.52E-01	368226.20	3757984.68	5.99E-02	368226.20	3757984.68	2.82E-01	368226.20	3757984.68	6.40E-03	368226.20	3757984.68	6.40E-03	368226.20	3757984.68	3.28E-02
368310.20	3754777.83	1.62E-01	368310.20	3754777.83	4.96E-01	368310.20	3754777.83	8.55E-02	368310.20	3754777.83	4.08E-01	368310.20	3754777.83	9.30E-03	368310.20	3754777.83	9.30E-03	368310.20	3754777.83	4.49E-02
368312.17	3757967.29	1.29E-01	368312.17	3757967.29	3.76E-01	368312.17	3757967.29	6.40E-02	368312.17	3757967.29	3.17E-01	368312.17	3757967.29	6.60E-03	368312.17	3757967.29	6.60E-03	368312.17	3757967.29	3.60E-02
368386.06	3757966.42	1.44E-01	368386.06	3757966.42	4.26E-01	368386.06	3757966.42	6.28E-02	368386.06	3757966.42	3.03E-01	368386.06	3757966.42	6.96E-03	368386.06	3757966.42	6.96E-03	368386.06	3757966.42	3.77E-02
368402.45	3755476.67	1.70E-01	368402.45	3755476.67	5.37E-01	368402.45	3755476.67	9.26E-02	368402.45	3755476.67	4.38E-01	368402.45	3755476.67	9.99E-03	368402.45	3755476.67	9.99E-03	368402.45	3755476.67	4.72E-02
368459.96	3757965.55	1.38E-01	368459.96	3757965.55	5.87E-02	368459.96	3757965.55	2.71E-01	368459.96	3757965.55	6.73E-03	368459.96	3757965.55	6.73E-03	368459.96	3757965.55	6.73E-03	368459.96	3757965.55	3.63E-02
368494.91	3754775.51	1.85E-01	368494.91	3754775.51	5.74E-01	368494.91	3754775.51	9.91E-02	368494.91	3754775.51	4.71E-01	368494.91	3754775.51	1.06E-02	368494.91	3754775.51	1.06E-02	368494.91	3754775.51	5.13E-02
368513.85	3757964.68	1.21E-01	368513.85	3757964.68	3.01E-01	368513.85	3757964.68	5.19E-02	368513.85	3757964.68	2.50E-01	368513.85	3757964.68	5.62E-03	368513.85	3757964.68	5.62E-03	368513.85	3757964.68	3.19E-02
368531.98	3757935.39	1.24E-01	368531.98	3757935.39	3.18E-01	368531.98	3757935.39	5.47E-02	368531.98	3757935.39	2.70E-01	368531.98	3757935.39	5.71E-03	368531.98	3757935.39	5.71E-03	368531.98	3757935.39	3.27E-02
368586.97	3757474.35	2.05E-01	368586.97	3757474.35	6.04E-01	368586.97	3757474.35	1.04E-01	368586.97	3757474.35	5.23E-01	368586.97	3757474.35	1.10E-02	368586.97	3757474.35	1.10E-02	368586.97	3757474.35	5.69E-02
368594.27	3757948.47	1.22E-01	368594.27	3757948.47	3.07E-01	368594.27	3757948.47	5.29E-02	368594.27	3757948.47	2.60E-01	368594.27	3757948.47	5.84E-03	368594.27	3757948.47	5.84E-03	368594.27	3757948.47	3.25E-02
368657.87	3757978.44	1.31E-01	368657.87	3757978.44	3.33E-01	368657.87	3757978.44	5.75E-02	368657.87	3757978.44	2.81E-01	368657.87	3757978.44	6.75E-03	368657.87	3757978.44	6.75E-03	368657.87	3757978.44	3.40E-02
368679.22	3754473.19	2.25E-01	368679.22	3754473.19	6.24E-01	368679.22	3754473.19	1.08E-01	368679.22	3754473.19	5.68E-01	368679.22	3754473.19	1.14E-02	368679.22	3754473.19	1.14E-02	368679.22	3754473.19	6.22E-02
368710.99	3758011.46	1.29E-01	368710.99	3758011.46	3.31E-01	368710.99	3758011.46	5.72E-02	368710.99	3758011.46	2.93E-01	368710.99	3758011.46	6.51E-03	368710.99	3758011.46	6.51E-03	368710.99	3758011.46	3.35E-02
368748.06	3758034.51	1.38E-01	368748.06	3758034.51	3.29E-01	368748.06	3758034.51	5.64E-02	368748.06	3758034.51	2.80E-01	368748.06	3758034.51	7.41E-03	368748.06	3758034.51	7.41E-03	368748.06	3758034.51	3.61E-02
368771.48	3754472.04	2.28E-01	368771.48	3754472.04	6.52E-01	368771.48	3754472.04	1.13E-01	368771.48	3754472.04	5.89E-01	368771.48	3754472.04	1.20E-02	368771.48	3754472.04	1.20E-02	368771.48	3754472.04	6.32E-02
368806.72	3758070.98	1.67E-01	368806.72	3758070.98	3.79E-01	368806.72	3758070.98	2.51E-01	368806.72	3758070.98	8.46E-03	368806.72	3758070.98	8.46E-03	368806.72	3758070.98	8.46E-03	368806.72	3758070.98	4.22E-02
368863.73	3754470.88	1.67E-01	368863.73	3754470.88	6.74E-01	368863.73	3754470.88	1.17E-01	368863.73	3754470.88	5.91E-01	368863.73	3754470.88	1.22E-02	368863.73	3754470.88	1.22E-02	368863.73	3754470.88	6.79E-02
368865.39	3758107.46	1.51E-01	368865.39	3758107.46	3.89E-01	368865.39	3758107.46	6.59E-02	368865.39	3758107.46	2.41E-01	368865.39	3758107.46	8.47E-03	368865.39	3758107.46	8.47E-03	368865.39	3758107.46	3.98E-02
368913.37	3758150.49	1.22E-01	368913.37	3758150.49	3.80E-01	368913.37	3758150.49	6.47E-02	368913.37	3758150.49	2.26E-01	368913.37	3758150.49	7.90E-03	368913.37	3758150.49	7.90E-03	368913.37	3758150.49	3.25E-02
368955.59	3754569.72	2.41E-01	368955.59	3754569.72	6.77E-01	368955.59	3754569.72	1.17E-01	368955.59	3754569.72	6.12E-01	368955.59	3754569.72	1.20E-02	368955.59	3754569.72	1.20E-02	368955.59	3754569.72	6.69E-02

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Emissions Source: Break Wear (G001)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Fugitive Dust (G003)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Tire Wear (G005)		
Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019
368744.29	3758177.61	1.07E-01	368744.29	3758177.61	3.73E-01	368744.29	3758177.61	6.39E-02	368744.29	3758177.61	2.28E-01	368744.29	3758177.61	7.49E-03	368744.29	3758177.61	7.49E-03	368744.29	3758177.61	2.91E-02
368892.63	3758138.09	1.14E-01	368892.63	3758138.09	3.87E-01	368892.63	3758138.09	6.62E-02	368892.63	3758138.09	2.36E-01	368892.63	3758138.09	7.88E-03	368892.63	3758138.09	7.88E-03	368892.63	3758138.09	3.09E-02
369011.06	3758086.77	1.25E-01	369011.06	3758086.77	4.07E-01	369011.06	3758086.77	2.50E-01	369011.06	3758086.77	8.43E-03	369011.06	3758086.77	8.43E-03	369011.06	3758086.77	8.43E-03	369011.06	3758086.77	3.34E-02
369048.25	3754568.56	2.16E-01	369048.25	3754568.56	6.56E-01	369048.25	3754568.56	1.14E-01	369048.25	3754568.56	5.94E-01	369048.25	3754568.56	1.12E-02	369048.25	3754568.56	1.12E-02	369048.25	3754568.56	6.08E-02
369097.31	3758131.13	1.39E-01	369097.31	3758131.13	3.96E-01	369097.31	3758131.13	6.83E-02	369097.31	3758131.13	2.37E-01	369097.31	3758131.13	7.61E-03	369097.31	3758131.13	7.61E-03	369097.31	3758131.13	3.20E-02
369140.50	3754567.40	1.70E-01	369140.50	3754567.40	6.08E-01	369140.50	3754567.40	1.06E-01	369140.50	3754567.40	5.41E-01	369140.50	3754567.40	9.81E-03	369140.50	3754567.40	9.81E-03	369140.50	3754567.40	4.90E-02
369216.91	3758091.36	1.32E-01	369216.91	3758091.36	4.19E-01	369216.91	3758091.36	7.28E-02	369216.91	3758091.36	3.00E-01	369216.91	3758091.36	7.66E-03	369216.91	3758091.36	7.66E-03	369216.91	3758091.36	3.67E-02
369232.76	3754466.24	1.56E-01	369232.76	3754466.24	5.41E-01	369232.76	3754466.24	9.44E-02	369232.76	3754466.24	4.71E-01	369232.76	3754466.24	8.65E-03	369232.76	3754466.24	8.65E-03	369232.76	3754466.24	4.33E-02
369267.76	3758146.04	1.10E-01	369267.76	3758146.04	3.52E-01	369267.76	3758146.04	6.23E-02	369267.76	3758146.04	2.89E-01	369267.76	3758146.04	6.13E-03	369267.76	3758146.04	6.13E-03	369267.76	3758146.04	3.17E-02
369271.60	3758217.04	1.18E-01	369271.60	3758217.04	3.39E-01	369271.60	3758217.04	6.00E-02	369271.60	3758217.04	2.75E-01	369271.60	3758217.04	6.02E-03	369271.60	3758217.04	6.02E-03	369271.60	3758217.04	3.06E-02
369323.20	3758086.63	1.12E-01	369323.20	3758086.63	3.67E-01	369323.20	3758086.63	6.50E-02	369323.20	3758086.63	3.00E-01	369323.20	3758086.63	6.35E-03	369323.20	3758086.63	6.35E-03	369323.20	3758086.63	3.40E-02
369328.65	3758304.45	1.31E-01	369328.65	3758304.45	3.09E-01	369328.65	3758304.45	5.23E-02	369328.65	3758304.45	2.63E-01	369328.65	3758304.45	6.38E-03	369328.65	3758304.45	6.38E-03	369328.65	3758304.45	3.40E-02
369329.84	3754464.79	1.77E-01	369329.84	3754464.79	4.95E-01	369329.84	3754464.79	8.58E-02	369329.84	3754464.79	4.44E-01	369329.84	3754464.79	8.52E-03	369329.84	3754464.79	8.52E-03	369329.84	3754464.79	4.87E-02
369342.43	3757939.52	1.44E-01	369342.43	3757939.52	4.41E-01	369342.43	3757939.52	7.73E-02	369342.43	3757939.52	3.24E-01	369342.43	3757939.52	8.33E-03	369342.43	3757939.52	8.33E-03	369342.43	3757939.52	4.01E-02
369386.54	3758429.44	1.02E-01	369386.54	3758429.44	2.58E-01	369386.54	3758429.44	4.19E-02	369386.54	3758429.44	1.98E-01	369386.54	3758429.44	5.23E-03	369386.54	3758429.44	5.23E-03	369386.54	3758429.44	2.67E-02
369387.36	3758507.02	8.85E-02	369387.36	3758507.02	2.39E-01	369387.36	3758507.02	4.09E-02	369387.36	3758507.02	1.73E-01	369387.36	3758507.02	4.71E-03	369387.36	3758507.02	4.71E-03	369387.36	3758507.02	2.39E-02
369409.11	3758008.60	1.34E-01	369409.11	3758008.60	3.86E-01	369409.11	3758008.60	6.84E-02	369409.11	3758008.60	3.07E-01	369409.11	3758008.60	6.90E-03	369409.11	3758008.60	6.90E-03	369409.11	3758008.60	3.49E-02
369426.92	3754463.35	1.67E-01	369426.92	3754463.35	4.74E-01	369426.92	3754463.35	8.25E-02	369426.92	3754463.35	4.35E-01	369426.92	3754463.35	8.80E-03	369426.92	3754463.35	8.80E-03	369426.92	3754463.35	4.61E-02
369466.66	3758183.75	8.25E-02	369466.66	3758183.75	2.61E-01	369466.66	3758183.75	4.43E-02	369466.66	3758183.75	1.63E-01	369466.66	3758183.75	5.19E-03	369466.66	3758183.75	5.19E-03	369466.66	3758183.75	2.25E-02
369524.00	3754613.90	1.73E-01	369524.00	3754613.90	4.63E-01	369524.00	3754613.90	8.00E-02	369524.00	3754613.90	3.90E-01	369524.00	3754613.90	9.09E-03	369524.00	3754613.90	9.09E-03	369524.00	3754613.90	4.65E-02
369549.13	3758182.89	1.14E-01	369549.13	3758182.89	3.14E-01	369549.13	3758182.89	5.40E-02	369549.13	3758182.89	2.12E-01	369549.13	3758182.89	6.22E-03	369549.13	3758182.89	6.22E-03	369549.13	3758182.89	2.93E-02
369621.08	3754640.45	2.25E-01	369621.08	3754640.45	5.00E-01	369621.08	3754640.45	8.60E-02	369621.08	3754640.45	3.82E-01	369621.08	3754640.45	1.02E-02	369621.08	3754640.45	1.02E-02	369621.08	3754640.45	5.86E-02
369629.61	3758582.03	1.54E-01	369629.61	3758582.03	3.80E-01	369629.61	3758582.03	6.51E-02	369629.61	3758582.03	2.88E-01	369629.61	3758582.03	7.76E-03	369629.61	3758582.03	7.76E-03	369629.61	3758582.03	4.12E-02
369710.08	3758581.17	1.58E-01	369710.08	3758581.17	3.92E-01	369710.08	3758581.17	6.75E-02	369710.08	3758581.17	2.97E-01	369710.08	3758581.17	7.86E-03	369710.08	3758581.17	7.86E-03	369710.08	3758581.17	4.23E-02
369718.16	3754459.00	2.22E-01	369718.16	3754459.00	5.25E-01	369718.16	3754459.00	8.91E-02	369718.16	3754459.00	4.19E-01	369718.16	3754459.00	1.21E-02	369718.16	3754459.00	1.21E-02	369718.16	3754459.00	5.82E-02
369787.02	3758266.68	1.75E-01	369787.02	3758266.68	3.99E-01	369787.02	3758266.68	6.86E-02	369787.02	3758266.68	3.29E-01	369787.02	3758266.68	7.85E-03	369787.02	3758266.68	7.85E-03	369787.02	3758266.68	4.70E-02
369788.19	3758398.38	1.54E-01	369788.19	3758398.38	3.58E-01	369788.19	3758398.38	6.16E-02	369788.19	3758398.38	2.95E-01	369788.19	3758398.38	7.01E-03	369788.19	3758398.38	7.01E-03	369788.19	3758398.38	4.14E-02
369789.37	3758489.35	1.38E-01	369789.37	3758489.35	3.31E-01	369789.37	3758489.35	5.71E-02	369789.37	3758489.35	2.68E-01	369789.37	3758489.35	6.43E-03	369789.37	3758489.35	6.43E-03	369789.37	3758489.35	3.72E-02
369815.24	3755457.56	3.28E-01	369815.24	3755457.56	6.62E-01	369815.24	3755457.56	1.13E-01	369815.24	3755457.56	5.04E-01	369815.24	3755457.56	1.51E-02	369815.24	3755457.56	1.51E-02	369815.24	3755457.56	8.53E-02
369862.84	3758285.07	1.33E-01	369862.84	3758285.07	4.00E-01	369862.84	3758285.07	6.92E-02	369862.84	3758285.07	2.72E-01	369862.84	3758285.07	7.66E-03	369862.84	3758285.07	7.66E-03	369862.84	3758285.07	3.66E-02
369912.32	3754456.11	1.96E-01	369912.32	3754456.11	5.94E-01	369912.32	3754456.11	1.02E-01	369912.32	3754456.11	5.14E-01	369912.32	3754456.11	1.39E-02	369912.32	3754456.11	1.39E-02	369912.32	3754456.11	8.57E-02
369978.66	3758283.45	1.20E-01	369978.66	3758283.45	3.88E-01	369978.66	3758283.45	6.75E-02	369978.66	3758283.45	2.68E-01	369978.66	3758283.45	7.04E-03	369978.66	3758283.45	7.04E-03	369978.66	3758283.45	3.34E-02
370009.40	3754454.66	2.44E-01	370009.40	3754454.66	6.69E-01	370009.40	3754454.66	1.15E-01	370009.40	3754454.66	4.17E-01	370009.40	3754454.66	1.42E-02	370009.40	3754454.66	1.42E-02	370009.40	3754454.66	6.47E-02
370056.44	3758282.14	1.12E-01	370056.44	3758282.14	3.76E-01	370056.44	3758282.14	6.56E-02	370056.44	3758282.14	2.68E-01	370056.44	3758282.14	6.61E-03	370056.44	3758282.14	6.61E-03	370056.44	3758282.14	3.17E-02
370106.48	3754453.21	2.76E-01	370106.48	3754453.21	5.84E-01	370106.48	3754453.21	9.95E-02	370106.48	3754453.21	4.28E-01	370106.48	3754453.21	1.32E-02	370106.48	3754453.21	1.32E-02	370106.48	3754453.21	7.19E-02
370130.90	3758282.44	9.61E-02	370130.90	3758282.44	3.47E-01	370130.90	3758282.44	6.09E-02	370130.90	3758282.44	2.64E-01	370130.90	3758282.44	5.98E-03	370130.90	3758282.44	5.98E-03	370130.90	3758282.44	2.81E-02
370203.56	3754451.77	2.38E-01	370203.56	3754451.77	5.77E-01	370203.56	3754451.77	9.90E-02	370203.56	3754451.77	4.28E-01	370203.56	3754451.77	1.26E-02	370203.56	3754451.77	1.26E-02	370203.56	3754451.77	6.23E-02
370226.81	3758159.47	1.66E-01	370226.81	3758159.47	3.91E-01	370226.81	3758159.47	5.73E-02	370226.81	3758159.47	2.66E-01	370226.81	3758159.47	7.13E-03	370226.81	3758159.47	7.13E-03	370226.81	3758159.47	4.23E-02
370227.55	3758221.46	1.55E-01	370227.55	3758221.46	3.06E-01	370227.55	3758221.46	5.48E-02	370227.55	3758221.46	2.46E-01	370227.55	3758221.46	6.68E-03	370227.55	3758221.46	6.68E-03	370227.55	3758221.46	4.03E-02
370228.30	3758283.44	1.43E-01	370228.30	3758283.44	2.94E-01	370228.30	3758283.44	5.26E-02	370228.30	3758283.44	2.40E-01	370228.30	3758283.44	6.25E-03	370228.30	3758283.44	6.25E-03	370228.30	3758283.44	3.72E-02
370253.14	3758168.84	1.63E-01	370253.14	3758168.84	3.04E-01	370253.14	3758168.84	5.21E-02	370253.14	3758168.84	2.51E-01	370253.14	3758168.84	7.01E-03	370253.14	3758168.84	7.01E-03	370253.14	3758168.84	4.23E-02
370310.64	3754450.32	2.56E-01	370310.64	3754450.32	5.51E-01	370310.64	3754450.32	8.93E-02	370310.64	3754450.32	3.90E-01	370310.64	3754450.32	1.06E-02	370310.64	3754450.32	1.06E-02	370310.64	3754450.32	5.74E-02
370310.97	3758176.51	1.27E-01	370310.97	3758176.51	2.76E-01	370310.97	3758176.51	5.00E-02	370310.97	3758176.51	2.29E-01	370

Pollutant: PM10 , Concentrations, Units: ug/m3 , Emissions Averaging: Peak Month Average Day , Averaging Period: 8 Hours

Emissions Source: Break Wear (G001)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Fugitive Dust (G003)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Tire Wear (G005)		
Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019
371927.01	3757742.91	5.73E-01	371927.01	3757742.91	1.32E+00	371927.01	3757742.91	2.15E-01	371927.01	3757742.91	1.01E+00	371927.01	3757742.91	2.96E-02	371927.01	3757742.91	2.96E-02	371927.01	3757742.91	1.71E-01
371928.06	3757790.69	5.16E-01	371928.06	3757790.69	1.10E+00	371928.06	3757790.69	1.81E-01	371928.06	3757790.69	1.07E+00	371928.06	3757790.69	2.51E-02	371928.06	3757790.69	2.51E-02	371928.06	3757790.69	1.58E-01
371934.40	3755402.69	1.06E-01	371934.40	3755402.69	2.47E-01	371934.40	3755402.69	4.27E-02	371934.40	3755402.69	1.91E-01	371934.40	3755402.69	4.74E-03	371934.40	3755402.69	4.74E-03	371934.40	3755402.69	2.86E-02
371934.40	3757852.44	3.63E-01	371934.40	3757852.44	1.40E-01	371934.40	3757852.44	9.08E-01	371934.40	3757852.44	1.82E-02	371934.40	3757852.44	1.82E-02	371934.40	3757852.44	1.06E-01			
371937.61	3757919.43	2.52E-01	371937.61	3757919.43	7.19E-01	371937.61	3757919.43	1.19E-01	371937.61	3757919.43	6.59E-01	371937.61	3757919.43	1.34E-02	371937.61	3757919.43	1.34E-02	371937.61	3757919.43	7.19E-02
371940.82	3757866.42	1.89E-01	371940.82	3757866.42	5.98E-01	371940.82	3757866.42	1.00E-01	371940.82	3757866.42	5.59E-01	371940.82	3757866.42	1.12E-02	371940.82	3757866.42	1.12E-02	371940.82	3757866.42	6.03E-02
371944.03	3758053.41	1.68E-01	371944.03	3758053.41	5.03E-01	371944.03	3758053.41	8.42E-02	371944.03	3758053.41	4.59E-01	371944.03	3758053.41	9.81E-03	371944.03	3758053.41	9.81E-03	371944.03	3758053.41	4.71E-02
371947.54	3758951.78	1.80E-01	371947.54	3758951.78	6.33E-01	371947.54	3758951.78	1.13E-01	371947.54	3758951.78	8.67E-01	371947.54	3758951.78	9.35E-03	371947.54	3758951.78	9.35E-03	371947.54	3758951.78	5.46E-02
371954.98	3757424.18	9.98E-01	371954.98	3757424.18	3.81E+00	371954.98	3757424.18	5.34E-01	371954.98	3757424.18	2.73E+00	371954.98	3757424.18	5.17E-02	371954.98	3757424.18	5.17E-02	371954.98	3757424.18	2.52E-01
372007.70	3757423.51	6.85E-01	372007.70	3757423.51	2.62E+00	372007.70	3757423.51	3.77E-01	372007.70	3757423.51	1.87E+00	372007.70	3757423.51	3.71E-02	372007.70	3757423.51	3.71E-02	372007.70	3757423.51	1.65E-01
372031.48	3757755.88	1.88E+00	372031.48	3757755.88	1.12E+00	372031.48	3757755.88	4.79E-01	372031.48	3757755.88	2.38E+00	372031.48	3757755.88	8.65E-02	372031.48	3757755.88	8.65E-02	372031.48	3757755.88	4.70E-02
372033.85	3753399.05	8.81E-02	372033.85	3753399.05	2.38E-01	372033.85	3753399.05	4.15E-02	372033.85	3753399.05	1.80E-01	372033.85	3753399.05	4.30E-03	372033.85	3753399.05	4.30E-03	372033.85	3753399.05	2.41E-02
372045.99	3756950.26	1.64E-01	372045.99	3756950.26	5.78E-01	372045.99	3756950.26	1.03E-01	372045.99	3756950.26	6.90E-01	372045.99	3756950.26	8.12E-03	372045.99	3756950.26	8.12E-03	372045.99	3756950.26	4.97E-02
372060.42	3757422.83	6.16E-01	372060.42	3757422.83	1.98E+00	372060.42	3757422.83	2.91E-01	372060.42	3757422.83	1.49E+00	372060.42	3757422.83	2.91E-02	372060.42	3757422.83	2.91E-02	372060.42	3757422.83	1.55E-01
372097.97	3757754.97	2.26E+00	372097.97	3757754.97	3.19E+00	372097.97	3757754.97	4.91E-01	372097.97	3757754.97	2.97E+00	372097.97	3757754.97	8.70E-02	372097.97	3757754.97	8.70E-02	372097.97	3757754.97	6.87E-01
372114.62	3757440.24	5.20E-01	372114.62	3757440.24	1.68E+00	372114.62	3757440.24	2.50E-01	372114.62	3757440.24	1.45E+00	372114.62	3757440.24	2.52E-02	372114.62	3757440.24	2.52E-02	372114.62	3757440.24	1.28E-01
372133.29	3753395.42	6.99E-02	372133.29	3753395.42	2.27E-01	372133.29	3753395.42	3.99E-02	372133.29	3753395.42	1.71E-01	372133.29	3753395.42	3.81E-03	372133.29	3753395.42	3.81E-03	372133.29	3753395.42	2.00E-02
372144.43	3756948.75	1.51E-01	372144.43	3756948.75	5.30E-01	372144.43	3756948.75	9.41E-02	372144.43	3756948.75	5.86E-01	372144.43	3756948.75	8.03E-03	372144.43	3756948.75	8.03E-03	372144.43	3756948.75	4.55E-02
372152.01	3757762.33	3.38E-01	372152.01	3757762.33	1.15E+00	372152.01	3757762.33	1.74E-01	372152.01	3757762.33	9.16E-01	372152.01	3757762.33	1.81E-02	372152.01	3757762.33	1.81E-02	372152.01	3757762.33	8.27E-02
372153.80	3757418.83	3.83E-01	372153.80	3757418.83	1.39E+00	372153.80	3757418.83	2.11E-01	372153.80	3757418.83	1.09E+00	372153.80	3757418.83	2.06E-02	372153.80	3757418.83	2.06E-02	372153.80	3757418.83	8.85E-02
372154.47	3757439.86	1.48E+00	372154.47	3757439.86	2.23E-01	372154.47	3757439.86	3.28E-01	372154.47	3757439.86	1.28E+00	372154.47	3757439.86	2.15E-02	372154.47	3757439.86	2.15E-02	372154.47	3757439.86	9.22E-02
372156.97	3757518.41	4.50E-01	372156.97	3757518.41	1.43E+00	372156.97	3757518.41	2.20E-01	372156.97	3757518.41	1.27E+00	372156.97	3757518.41	2.41E-02	372156.97	3757518.41	2.41E-02	372156.97	3757518.41	1.35E-01
372159.47	3757596.96	6.64E-01	372159.47	3757596.96	1.51E+00	372159.47	3757596.96	2.36E-01	372159.47	3757596.96	1.16E+00	372159.47	3757596.96	3.31E-02	372159.47	3757596.96	3.31E-02	372159.47	3757596.96	1.91E-01
372161.97	3757675.51	1.14E+00	372161.97	3757675.51	2.37E+00	372161.97	3757675.51	3.65E-01	372161.97	3757675.51	1.88E+00	372161.97	3757675.51	6.23E-02	372161.97	3757675.51	6.23E-02	372161.97	3757675.51	3.23E-01
372164.46	3757754.06	1.09E+00	372164.46	3757754.06	2.53E+00	372164.46	3757754.06	3.86E-01	372164.46	3757754.06	1.72E+00	372164.46	3757754.06	5.98E-02	372164.46	3757754.06	5.98E-02	372164.46	3757754.06	3.26E-01
372232.73	3755391.79	5.43E-01	372232.73	3755391.79	2.14E-01	372232.73	3755391.79	3.79E-02	372232.73	3755391.79	1.67E-01	372232.73	3755391.79	3.44E-03	372232.73	3755391.79	3.44E-03	372232.73	3755391.79	1.61E-02
372242.87	3756947.24	1.41E-01	372242.87	3756947.24	4.88E-01	372242.87	3756947.24	8.66E-02	372242.87	3756947.24	5.23E-01	372242.87	3756947.24	7.98E-03	372242.87	3756947.24	7.98E-03	372242.87	3756947.24	4.18E-02
372312.18	3755388.15	4.21E-02	372312.18	3755388.15	2.00E-01	372312.18	3755388.15	3.56E-02	372312.18	3755388.15	1.66E-01	372312.18	3755388.15	2.88E-03	372312.18	3755388.15	2.88E-03	372312.18	3755388.15	1.35E-02
372241.31	3756945.73	1.35E-01	372241.31	3756945.73	4.52E-01	372241.31	3756945.73	8.01E-02	372241.31	3756945.73	4.40E-01	372241.31	3756945.73	6.61E-03	372241.31	3756945.73	6.61E-03	372241.31	3756945.73	3.86E-02
372410.73	3755381.99	1.98E-01	372410.73	3755381.99	3.37E-02	372410.73	3755381.99	1.66E-01	372410.73	3755381.99	2.56E-03	372410.73	3755381.99	2.56E-03	372410.73	3755381.99	1.19E-02			
372439.76	3756944.21	1.27E-01	372439.76	3756944.21	4.35E-01	372439.76	3756944.21	7.44E-02	372439.76	3756944.21	4.51E-01	372439.76	3756944.21	6.23E-03	372439.76	3756944.21	6.23E-03	372439.76	3756944.21	3.71E-02
372469.28	3755375.83	3.84E-02	372469.28	3755375.83	1.77E-01	372469.28	3755375.83	3.17E-02	372469.28	3755375.83	1.66E-01	372469.28	3755375.83	2.31E-03	372469.28	3755375.83	2.31E-03	372469.28	3755375.83	1.12E-02
372538.20	3756942.70	1.25E-01	372538.20	3756942.70	4.31E-01	372538.20	3756942.70	6.93E-02	372538.20	3756942.70	4.61E-01	372538.20	3756942.70	5.96E-03	372538.20	3756942.70	5.96E-03	372538.20	3756942.70	3.51E-02
372567.83	3755369.67	3.82E-02	372567.83	3755369.67	1.64E-01	372567.83	3755369.67	2.96E-02	372567.83	3755369.67	1.61E-01	372567.83	3755369.67	2.22E-03	372567.83	3755369.67	2.22E-03	372567.83	3755369.67	1.12E-02
372621.24	3755369.96	3.83E-02	372621.24	3755369.96	1.55E-01	372621.24	3755369.96	2.80E-02	372621.24	3755369.96	1.57E-01	372621.24	3755369.96	2.17E-03	372621.24	3755369.96	2.17E-03	372621.24	3755369.96	1.12E-02
372627.96	3756505.77	7.36E-02	372627.96	3756505.77	2.20E-01	372627.96	3756505.77	3.45E-01	372627.96	3756505.77	1.45E-01	372627.96	3756505.77	3.47E-03	372627.96	3756505.77	3.47E-03	372627.96	3756505.77	2.08E-02
372628.35	3756589.05	8.14E-02	372628.35	3756589.05	2.46E-01	372628.35	3756589.05	4.31E-02	372628.35	3756589.05	4.10E-01	372628.35	3756589.05	4.09E-03	372628.35	3756589.05	4.09E-03	372628.35	3756589.05	2.36E-02
372630.81	3757026.03	1.28E-01	372630.81	3757026.03	4.88E-01	372630.81	3757026.03	7.45E-02	372630.81	3757026.03	5.51E-01	372630.81	3757026.03	7.03E-03	372630.81	3757026.03	7.03E-03	372630.81	3757026.03	3.64E-02
372632.23	3757120.50	1.75E-01	372632.23	3757120.50	6.15E-01	372632.23	3757120.50	9.34E-02	372632.23	3757120.50	6.25E-01	372632.23	3757120.50	8.94E-03	372632.23	3757120.50	8.94E-03	372632.23	3757120.50	4.99E-02
372632.53	3756752.34	1.07E-01	372632.53	3756752.34	3.23E-01	372632.53	3756752.34	5.70E-02	372632.53	3756752.34	5.01E-01	372632.53	3756752.34	5.01E-03	372632.53	3756752.34	5.01E-03	372632.53	3756752.34	3.12E-02
372634.59	3756846.76	1.08E-01	372634.59	3756846.76	3.52E-01	372634.59	3756846.76	6.22E-02	372634.59	3756846.76	4.95E-01	372634.59	3756846.76	5.31E-03	372634.59	3756846.76	5.31E-03	372634.59	3756846.76	3.12E-02
372634.70	3757211.58	2.31E-01	372634.70	3757211.58	8.51E-01	372634.70	3757211.58	1.32E-01	372634.70	3757211.58	8.51E-01	372634.70	3757211.58	1.21E-02	372634.70	3757211.58	1.21E-02	372634.70	3757211.58	7.09E-02
372636.64	3756941.19	1.08E-01	372636.64	3756941.19	4.06E-01	372636.64	3756941.19	6.48E-02	372636.64	3756941.19	5.26E-01	372636.64	3756941.19	5.78E-03	372636.64	3756941.19	5.78E-03	372636.64	3756941.19	3.15E-02
372650.02	3757248.61	2.80E-01	372650.02	3757248.61	1.06E+00	372650.02	3757248.61	1.64E-01	372650.02	3757248.61	1.17E+00	372650.02	3757248.61	1.51E-02	372650.02	3757248.61	1.51E-02	372650.02	3757248.61	8.95E-02
372671.90	3757332.14	6.01E-01	372671.90	3757332.14	1.97E+00	372671.90	3757332.14	2.99E-01	372671.90	3757332.14	1.91E+00	372671.90	3757332.14	2.78E-02	372671.90	3757332.14	2.78E-02	372671.90	3757332.14	1.97E-01

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10 , Concentrations, Units: ug/m3 , Emissions Averaging: Peak Month Average Day , Averaging Period: 8 Hours

Emissions Source: Break Wear (G001)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Fugitive Dust (G003)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Tire Wear (G005)		
Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019
372622.36	3758975.42	1.26E-01	372622.36	3758975.42	4.33E-01	372622.36	3758975.42	6.60E-02	372622.36	3758975.42	6.99E-01	372622.36	3758975.42	6.14E-03	372622.36	3758975.42	6.14E-03	372622.36	3758975.42	3.71E-02
372627.57	3757018.04	1.35E-01	372627.57	3757018.04	4.75E-01	372627.57	3757018.04	7.22E-02	372627.57	3757018.04	6.51E-01	372627.57	3757018.04	6.74E-03	372627.57	3757018.04	6.74E-03	372627.57	3757018.04	4.02E-02
372629.63	3756588.53	7.90E-02	372629.63	3756588.53	2.39E-01	372629.63	3756588.53	4.19E-02	372629.63	3756588.53	3.38E-01	372629.63	3756588.53	3.97E-03	372629.63	3756588.53	3.97E-03	372629.63	3756588.53	2.29E-02
372629.40	3756751.91	1.04E-01	372629.40	3756751.91	3.11E-01	372629.40	3756751.91	5.49E-02	372629.40	3756751.91	5.25E-01	372629.40	3756751.91	4.84E-03	372629.40	3756751.91	4.84E-03	372629.40	3756751.91	3.02E-02
372697.78	3755368.97	3.81E-02	372697.78	3755368.97	1.42E-01	372697.78	3755368.97	2.57E-02	372697.78	3755368.97	1.47E-01	372697.78	3755368.97	2.09E-03	372697.78	3755368.97	2.09E-03	372697.78	3755368.97	1.12E-02
372704.41	3757417.13	2.67E+00	372704.41	3757417.13	5.37E+00	372704.41	3757417.13	8.16E-01	372704.41	3757417.13	4.37E+00	372704.41	3757417.13	7.91E-02	372704.41	3757417.13	7.91E-02	372704.41	3757417.13	8.73E-01
372725.34	3756505.44	7.06E-02	372725.34	3756505.44	2.08E-01	372725.34	3756505.44	3.66E-02	372725.34	3756505.44	2.34E-01	372725.34	3756505.44	3.35E-03	372725.34	3756505.44	3.35E-03	372725.34	3756505.44	2.01E-02
372730.58	3756778.55	9.16E-02	372730.58	3756778.55	2.77E-01	372730.58	3756778.55	4.87E-02	372730.58	3756778.55	3.53E-01	372730.58	3756778.55	4.42E-03	372730.58	3756778.55	4.42E-03	372730.58	3756778.55	2.61E-02
372739.22	3757507.15	1.09E+00	372739.22	3757507.15	3.63E+00	372739.22	3757507.15	5.49E-01	372739.22	3757507.15	5.24E+00	372739.22	3757507.15	5.16E-02	372739.22	3757507.15	5.16E-02	372739.22	3757507.15	3.51E-01
372756.67	3756751.48	1.01E-01	372756.67	3756751.48	3.00E-01	372756.67	3756751.48	5.29E-02	372756.67	3756751.48	3.61E-01	372756.67	3756751.48	4.67E-03	372756.67	3756751.48	4.67E-03	372756.67	3756751.48	2.92E-02
372768.35	3756973.59	1.39E-01	372768.35	3756973.59	4.66E-01	372768.35	3756973.59	7.34E-02	372768.35	3756973.59	6.18E-01	372768.35	3756973.59	6.18E-03	372768.35	3756973.59	6.18E-03	372768.35	3756973.59	4.02E-02
372770.71	3757656.89	3.03E-01	372770.71	3757656.89	1.01E+00	372770.71	3757656.89	1.69E+00	372770.71	3757656.89	1.49E+00	372770.71	3757656.89	1.52E-02	372770.71	3757656.89	1.52E-02	372770.71	3757656.89	9.52E-02
372773.23	3757598.18	4.03E-01	372773.23	3757598.18	1.42E+00	372773.23	3757598.18	2.19E-01	372773.23	3757598.18	1.38E+00	372773.23	3757598.18	2.14E-02	372773.23	3757598.18	2.14E-02	372773.23	3757598.18	1.30E-01
372774.32	3753367.98	3.75E-02	372774.32	3753367.98	1.29E-01	372774.32	3753367.98	2.34E-02	372774.32	3753367.98	1.33E-01	372774.32	3753367.98	2.01E-03	372774.32	3753367.98	2.01E-03	372774.32	3753367.98	1.10E-02
372774.75	3757745.62	2.45E-01	372774.75	3757745.62	7.52E-01	372774.75	3757745.62	1.17E-01	372774.75	3757745.62	7.94E-01	372774.75	3757745.62	1.26E-02	372774.75	3757745.62	1.26E-02	372774.75	3757745.62	7.08E-02
372784.40	3757635.25	2.97E-01	372784.40	3757635.25	1.09E+00	372784.40	3757635.25	1.67E-01	372784.40	3757635.25	2.06E+00	372784.40	3757635.25	1.64E-02	372784.40	3757635.25	1.64E-02	372784.40	3757635.25	9.52E-02
372822.71	3756505.12	6.78E-02	372822.71	3756505.12	2.16E-01	372822.71	3756505.12	3.49E-02	372822.71	3756505.12	2.34E-01	372822.71	3756505.12	3.24E-03	372822.71	3756505.12	3.24E-03	372822.71	3756505.12	1.94E-02
372839.80	3757745.93	2.29E-01	372839.80	3757745.93	7.35E-01	372839.80	3757745.93	1.14E-01	372839.80	3757745.93	9.59E-01	372839.80	3757745.93	1.13E-02	372839.80	3757745.93	1.13E-02	372839.80	3757745.93	6.45E-02
372850.87	3753366.99	3.66E-02	372850.87	3753366.99	1.22E-01	372850.87	3753366.99	2.17E-02	372850.87	3753366.99	1.17E-01	372850.87	3753366.99	1.91E-03	372850.87	3753366.99	1.91E-03	372850.87	3753366.99	1.07E-02
372864.35	3756971.76	9.71E-02	372864.35	3756971.76	3.82E-01	372864.35	3756971.76	5.89E-02	372864.35	3756971.76	4.68E-01	372864.35	3756971.76	5.74E-03	372864.35	3756971.76	5.74E-03	372864.35	3756971.76	2.94E-02
372904.85	3757746.24	1.71E-01	372904.85	3757746.24	1.11E-01	372904.85	3757746.24	1.18E-02	372904.85	3757746.24	1.38E-01	372904.85	3757746.24	1.01E-02	372904.85	3757746.24	1.01E-02	372904.85	3757746.24	5.26E-02
372910.27	3757732.13	1.91E-01	372910.27	3757732.13	7.69E-01	372910.27	3757732.13	1.15E-01	372910.27	3757732.13	1.25E+00	372910.27	3757732.13	1.01E-02	372910.27	3757732.13	1.01E-02	372910.27	3757732.13	5.99E-02
372919.43	3756436.58	6.19E-02	372919.43	3756436.58	2.03E-01	372919.43	3756436.58	3.29E-02	372919.43	3756436.58	2.02E-01	372919.43	3756436.58	2.85E-03	372919.43	3756436.58	2.85E-03	372919.43	3756436.58	1.74E-02
372920.09	3756504.79	6.55E-02	372920.09	3756504.79	2.15E-01	372920.09	3756504.79	3.33E-02	372920.09	3756504.79	2.01E-01	372920.09	3756504.79	3.13E-03	372920.09	3756504.79	3.13E-03	372920.09	3756504.79	1.88E-02
372927.41	3753366.00	3.54E-02	372927.41	3753366.00	1.19E-01	372927.41	3753366.00	2.10E-02	372927.41	3753366.00	1.03E-01	372927.41	3753366.00	1.86E-03	372927.41	3753366.00	1.86E-03	372927.41	3753366.00	1.03E-02
372927.86	3756465.33	3.51E-02	372927.86	3756465.33	1.20E-01	372927.86	3756465.33	2.14E-02	372927.86	3756465.33	1.05E-01	372927.86	3756465.33	1.85E-03	372927.86	3756465.33	1.85E-03	372927.86	3756465.33	1.03E-02
372928.32	3755564.67	3.39E-02	372928.32	3755564.67	1.22E-01	372928.32	3755564.67	2.14E-02	372928.32	3755564.67	1.12E-01	372928.32	3755564.67	1.81E-03	372928.32	3755564.67	1.81E-03	372928.32	3755564.67	1.00E-02
372928.77	3755664.00	3.70E-02	372928.77	3755664.00	1.27E-01	372928.77	3755664.00	2.11E-02	372928.77	3755664.00	1.20E-01	372928.77	3755664.00	1.87E-03	372928.77	3755664.00	1.87E-03	372928.77	3755664.00	9.75E-03
372929.23	3757763.34	4.03E-02	372929.23	3757763.34	1.32E-01	372929.23	3757763.34	2.29E-02	372929.23	3757763.34	1.29E-01	372929.23	3757763.34	2.02E-03	372929.23	3757763.34	2.02E-03	372929.23	3757763.34	1.02E-02
372947.75	3755971.61	8.57E-02	372947.75	3755971.61	3.50E-01	372947.75	3755971.61	5.37E-02	372947.75	3755971.61	4.35E-01	372947.75	3755971.61	4.97E-03	372947.75	3755971.61	4.97E-03	372947.75	3755971.61	2.95E-02
372992.82	3755761.76	3.93E-02	372992.82	3755761.76	2.00E-02	372992.82	3755761.76	2.00E-02	372992.82	3755761.76	1.36E-01	372992.82	3755761.76	2.02E-03	372992.82	3755761.76	2.02E-03	372992.82	3755761.76	1.02E-02
372995.87	3757731.75	1.78E-01	372995.87	3757731.75	8.24E-01	372995.87	3757731.75	1.20E-01	372995.87	3757731.75	1.32E+00	372995.87	3757731.75	9.21E-03	372995.87	3757731.75	9.21E-03	372995.87	3757731.75	5.30E-02
373004.43	3756435.35	6.02E-02	373004.43	3756435.35	1.91E-01	373004.43	3756435.35	3.12E-02	373004.43	3756435.35	1.87E-01	373004.43	3756435.35	2.70E-03	373004.43	3756435.35	2.70E-03	373004.43	3756435.35	1.70E-02
373031.15	3756971.45	8.14E-02	373031.15	3756971.45	3.22E-01	373031.15	3756971.45	5.11E-02	373031.15	3756971.45	3.90E-01	373031.15	3756971.45	4.41E-03	373031.15	3756971.45	4.41E-03	373031.15	3756971.45	2.42E-02
373056.40	3755760.18	3.82E-02	373056.40	3755760.18	1.25E-01	373056.40	3755760.18	1.93E-02	373056.40	3755760.18	1.35E-01	373056.40	3755760.18	1.99E-03	373056.40	3755760.18	1.99E-03	373056.40	3755760.18	1.05E-02
373057.59	3755829.92	4.36E-02	373057.59	3755829.92	1.29E-01	373057.59	3755829.92	1.99E-02	373057.59	3755829.92	1.38E-01	373057.59	3755829.92	2.04E-03	373057.59	3755829.92	2.04E-03	373057.59	3755829.92	1.21E-02
373058.79	3755899.65	4.76E-02	373058.79	3755899.65	1.33E-01	373058.79	3755899.65	2.08E-02	373058.79	3755899.65	1.40E-01	373058.79	3755899.65	2.06E-03	373058.79	3755899.65	2.06E-03	373058.79	3755899.65	1.34E-02
373077.68	3757731.38	1.63E-01	373077.68	3757731.38	7.48E-01	373077.68	3757731.38	1.11E-01	373077.68	3757731.38	9.58E-01	373077.68	3757731.38	9.09E-03	373077.68	3757731.38	9.09E-03	373077.68	3757731.38	4.68E-02
373089.44	3756434.13	5.85E-02	373089.44	3756434.13	1.76E-01	373089.44	3756434.13	2.97E-02	373089.44	3756434.13	2.01E-01	373089.44	3756434.13	2.61E-03	373089.44	3756434.13	2.61E-03	373089.44	3756434.13	1.66E-02
373118.11	3756991.39	7.80E-02	373118.11	3756991.39	3.00E-01	373118.11	3756991.39	4.87E-02	373118.11	3756991.39	4.14E-01	373118.11	3756991.39	4.29E-03	373118.11	3756991.39	4.29E-03	373118.11	3756991.39	2.31E-02
373137.86	3757519.39	3.80E-02	373137.86	3757519.39	1.19E-01	373137.86	3757519.39	1.83E-02	373137.86	3757519.39	1.22E-01	373137.86	3757519.39	1.91E-03	373137.86	3757519.39	1.91E-03	373137.86	3757519.39	1.07E-02
373138.33	3755829.37	4.36E-02	373138.33	3755829.37	1.23E-01	373138.33	3755829.37	1.92E-02	373138.33	3755829.37	1.21E-01	373138.33	3755829.37	1.94E-03	373138.33	3755829.37	1.94E-03	373138.33	3755829.37	1.22E-02
373138.82	3755899.35	4.69E-02	373138.82	3755899.35	1.26E-01	373138.82	3755899.35	2.05E-02	373138.82	3755899.35	1.20E-01	373138.82	3755899.35	2.01E-03	373138.82

Pollutant: PM10 , Concentrations, Units: ug/m3 , Emissions Averaging: Peak Month Average Day , Averaging Period: 8 Hours

Emissions Source: Break Wear (G001)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Fugitive Dust (G003)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Tire Wear (G005)		
Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019
369900.00	3764500.00	1.26E-02	369900.00	3764500.00	3.21E-02	369900.00	3764500.00	5.66E-03	369900.00	3764500.00	2.39E-02	369900.00	3764500.00	5.40E-04	369900.00	3764500.00	5.40E-04	369900.00	3764500.00	3.46E-03
370006.10	3758331.16	1.20E-01	370006.10	3758331.16	3.82E-01	370006.10	3758331.16	6.63E-02	370006.10	3758331.16	2.54E-01	370006.10	3758331.16	6.86E-03	370006.10	3758331.16	6.86E-03	370006.10	3758331.16	3.15E-02
370103.69	3758338.49	1.04E-01	370103.69	3758338.49	3.05E-01	370103.69	3758338.49	5.40E-02	370103.69	3758338.49	2.47E-01	370103.69	3758338.49	6.10E-03	370103.69	3758338.49	6.10E-03	370103.69	3758338.49	2.69E-02
370425.35	3758336.66	1.21E-01	370425.35	3758336.66	2.37E-01	370425.35	3758336.66	4.02E-02	370425.35	3758336.66	2.44E-01	370425.35	3758336.66	5.24E-03	370425.35	3758336.66	5.24E-03	370425.35	3758336.66	2.37E-02
370701.79	3758334.82	1.03E-01	370701.79	3758334.82	2.71E-01	370701.79	3758334.82	4.68E-02	370701.79	3758334.82	2.16E-01	370701.79	3758334.82	5.32E-03	370701.79	3758334.82	5.32E-03	370701.79	3758334.82	2.74E-02
370780.52	3758327.50	1.01E-01	370780.52	3758327.50	2.72E-01	370780.52	3758327.50	4.72E-02	370780.52	3758327.50	2.34E-01	370780.52	3758327.50	5.38E-03	370780.52	3758327.50	5.38E-03	370780.52	3758327.50	2.82E-02
370900.00	3759500.00	8.65E-02	370900.00	3759500.00	1.81E-01	370900.00	3759500.00	3.05E-02	370900.00	3759500.00	1.34E-01	370900.00	3759500.00	3.92E-03	370900.00	3759500.00	3.92E-03	370900.00	3759500.00	2.29E-02
370800.00	3765000.00	2.46E-02	370800.00	3765000.00	8.77E-02	370800.00	3765000.00	1.52E-02	370900.00	3765000.00	5.12E-02	370900.00	3765000.00	1.61E-03	370900.00	3765000.00	1.61E-03	370900.00	3765000.00	6.45E-03
370900.00	3762500.00	1.95E-02	370900.00	3762500.00	4.37E-02	370800.00	3762500.00	7.49E-03	370900.00	3762500.00	3.08E-02	370900.00	3762500.00	9.50E-04	370900.00	3762500.00	9.50E-04	370900.00	3762500.00	5.09E-03
370900.00	3763500.00	9.00E-03	370900.00	3763500.00	2.66E-02	370900.00	3763500.00	4.54E-03	370900.00	3763500.00	2.48E-02	370900.00	3763500.00	5.80E-04	370900.00	3763500.00	5.80E-04	370900.00	3763500.00	2.62E-03
370900.00	3764500.00	1.15E-03	370900.00	3764500.00	2.24E-02	370900.00	3764500.00	3.97E-03	370900.00	3764500.00	2.13E-02	370900.00	3764500.00	3.92E-04	370900.00	3764500.00	3.92E-04	370900.00	3764500.00	1.17E-02
371295.29	3758036.94	1.76E-01	371295.29	3758036.94	5.02E-01	371295.29	3758036.94	7.80E-02	371295.29	3758036.94	3.50E-01	371295.29	3758036.94	9.84E-03	371295.29	3758036.94	9.84E-03	371295.29	3758036.94	4.32E-02
371421.46	3758118.19	1.36E-01	371421.46	3758118.19	3.76E-01	371421.46	3758118.19	5.98E-02	371421.46	3758118.19	3.64E-01	371421.46	3758118.19	6.98E-03	371421.46	3758118.19	6.98E-03	371421.46	3758118.19	2.79E-02
371550.51	3758209.00	1.16E-01	371550.51	3758209.00	3.49E-01	371550.51	3758209.00	5.90E-02	371550.51	3758209.00	3.38E-01	371550.51	3758209.00	6.41E-03	371550.51	3758209.00	6.41E-03	371550.51	3758209.00	3.27E-02
371685.28	3758299.81	1.11E-01	371685.28	3758299.81	3.56E-01	371685.28	3758299.81	5.78E-02	371685.28	3758299.81	2.98E-01	371685.28	3758299.81	6.57E-03	371685.28	3758299.81	6.57E-03	371685.28	3758299.81	2.84E-02
371754.11	3758291.20	1.12E-01	371754.11	3758291.20	3.70E-01	371754.11	3758291.20	5.90E-02	371754.11	3758291.20	2.95E-01	371754.11	3758291.20	6.82E-03	371754.11	3758291.20	6.82E-03	371754.11	3758291.20	2.67E-02
371807.64	3758213.78	1.15E-01	371807.64	3758213.78	4.06E-01	371807.64	3758213.78	6.46E-02	371807.64	3758213.78	3.56E-01	371807.64	3758213.78	7.41E-03	371807.64	3758213.78	7.41E-03	371807.64	3758213.78	2.77E-02
371874.55	3758164.07	1.24E-01	371874.55	3758164.07	4.18E-01	371874.55	3758164.07	6.49E-02	371874.55	3758164.07	3.75E-01	371874.55	3758164.07	7.42E-03	371874.55	3758164.07	7.42E-03	371874.55	3758164.07	2.87E-02
371900.00	3758500.00	8.52E-02	371900.00	3758500.00	2.85E-01	371900.00	3758500.00	4.51E-02	371900.00	3758500.00	2.47E-01	371900.00	3758500.00	5.18E-03	371900.00	3758500.00	5.18E-03	371900.00	3758500.00	2.44E-02
371900.00	3759500.00	4.53E-02	371900.00	3759500.00	1.32E-01	371900.00	3759500.00	2.13E-02	371900.00	3759500.00	1.10E-01	371900.00	3759500.00	2.30E-03	371900.00	3759500.00	2.30E-03	371900.00	3759500.00	1.22E-02
371900.00	3762500.00	3.21E-02	371900.00	3762500.00	7.45E-02	371900.00	3762500.00	1.28E-02	371900.00	3762500.00	5.76E-02	371900.00	3762500.00	1.47E-03	371900.00	3762500.00	1.47E-03	371900.00	3762500.00	8.85E-03
371900.00	3763500.00	1.39E-02	371900.00	3763500.00	3.47E-02	371900.00	3763500.00	6.00E-03	371900.00	3763500.00	3.29E-02	371900.00	3763500.00	6.80E-04	371900.00	3763500.00	6.80E-04	371900.00	3763500.00	3.70E-03
371933.81	3758104.81	1.50E-01	371933.81	3758104.81	4.47E-01	371933.81	3758104.81	7.31E-02	371933.81	3758104.81	3.97E-01	371933.81	3758104.81	8.70E-03	371933.81	3758104.81	8.70E-03	371933.81	3758104.81	4.01E-02
372241.00	3757883.00	3.86E-01	372241.00	3757883.00	1.10E+00	372241.00	3757883.00	1.74E-01	372241.00	3757883.00	8.23E-01	372241.00	3757883.00	2.31E-02	372241.00	3757883.00	2.31E-02	372241.00	3757883.00	1.09E-01
372241.00	3757983.00	2.83E-01	372241.00	3757983.00	7.95E-01	372241.00	3757983.00	1.23E-01	372241.00	3757983.00	6.25E-01	372241.00	3757983.00	1.60E-02	372241.00	3757983.00	1.60E-02	372241.00	3757983.00	7.73E-02
372241.00	3758083.00	4.48E-01	372241.00	3758083.00	1.08E+00	372241.00	3758083.00	1.67E-01	372241.00	3758083.00	8.81E-01	372241.00	3758083.00	2.18E-02	372241.00	3758083.00	2.18E-02	372241.00	3758083.00	1.31E-01
372241.00	3758183.00	2.48E-01	372241.00	3758183.00	7.88E-01	372241.00	3758183.00	1.27E-01	372241.00	3758183.00	6.46E-01	372241.00	3758183.00	1.58E-02	372241.00	3758183.00	1.58E-02	372241.00	3758183.00	6.80E-02
372500.00	3753500.00	3.44E-02	372500.00	3753500.00	1.05E-01	372500.00	3753500.00	1.83E-02	372500.00	3753500.00	8.93E-02	372500.00	3753500.00	1.68E-03	372500.00	3753500.00	1.68E-03	372500.00	3753500.00	9.88E-03
372500.00	3754500.00	6.39E-02	372500.00	3754500.00	1.40E-01	372500.00	3754500.00	2.42E-02	372500.00	3754500.00	1.12E-01	372500.00	3754500.00	2.70E-03	372500.00	3754500.00	2.70E-03	372500.00	3754500.00	1.71E-02
372500.00	3755500.00	5.09E-02	372500.00	3755500.00	1.35E-01	372500.00	3755500.00	2.39E-02	372500.00	3755500.00	1.33E-01	372500.00	3755500.00	2.25E-03	372500.00	3755500.00	2.25E-03	372500.00	3755500.00	1.47E-02
372500.00	3760500.00	2.76E-02	372500.00	3760500.00	7.75E-02	372500.00	3760500.00	1.35E-02	372500.00	3760500.00	7.81E-02	372500.00	3760500.00	1.36E-03	372500.00	3760500.00	1.36E-03	372500.00	3760500.00	7.87E-03
372500.00	3761500.00	1.58E-02	372500.00	3761500.00	5.81E-02	372500.00	3761500.00	9.81E-03	372500.00	3761500.00	5.87E-02	372500.00	3761500.00	8.80E-04	372500.00	3761500.00	8.80E-04	372500.00	3761500.00	4.38E-03
372500.00	3762500.00	1.69E-02	372500.00	3762500.00	4.16E-02	372500.00	3762500.00	7.15E-03	372500.00	3762500.00	3.96E-02	372500.00	3762500.00	7.80E-04	372500.00	3762500.00	7.80E-04	372500.00	3762500.00	4.61E-03
373541.00	3757783.00	1.21E-01	373541.00	3757783.00	4.59E-01	373541.00	3757783.00	6.95E-02	373541.00	3757783.00	6.02E-01	373541.00	3757783.00	6.44E-03	373541.00	3757783.00	6.44E-03	373541.00	3757783.00	3.26E-02
373541.00	3757883.00	1.08E-01	373541.00	3757883.00	4.47E-01	373541.00	3757883.00	6.82E-02	373541.00	3757883.00	5.07E-01	373541.00	3757883.00	5.54E-03	373541.00	3757883.00	5.54E-03	373541.00	3757883.00	2.93E-02
373541.00	3757983.00	1.02E-01	373541.00	3757983.00	3.94E-01	373541.00	3757983.00	6.07E-02	373541.00	3757983.00	5.14E-01	373541.00	3757983.00	5.37E-03	373541.00	3757983.00	5.37E-03	373541.00	3757983.00	2.64E-02
373641.00	3758083.00	5.88E-02	373641.00	3758083.00	2.24E-01	373641.00	3758083.00	3.74E-02	373641.00	3758083.00	2.28E-01	373641.00	3758083.00	3.26E-03	373641.00	3758083.00	3.26E-03	373641.00	3758083.00	1.74E-02
373641.00	3758183.00	7.29E-02	373641.00	3758183.00	2.66E-01	373641.00	3758183.00	4.22E-02	373641.00	3758183.00	2.47E-01	373641.00	3758183.00	3.94E-03	373641.00	3758183.00	3.94E-03	373641.00	3758183.00	1.95E-02
373641.00	3758283.00	9.16E-02	373641.00	3758283.00	3.22E-01	373641.00	3758283.00	5.04E-02	373641.00	3758283.00	3.08E-01	373641.00	3758283.00	4.60E-03	373641.00	3758283.00	4.60E-03	373641.00	3758283.00	2.28E-02
373641.00	3758383.00	9.80E-02	373641.00	3758383.00	3.67E-01	373641.00	3758383.00	5.69E-02	373641.00	3758383.00	4.19E-01	373641.00	3758383.00	5.04E-03	373641.00	3758383.00	5.04E-03	373641.00	3758383.00	2.61E-02
373641.00	3758483.00	8.69E-02	373641.00	3758483.00	3.85E-01	373641.00	3758483.00	5.95E-02	373641.00	3758383.00	4.23E-01	373641.00	3758383.00	5.17E-03	373641.00	3758383.00	5.17E-03	373641.00	3758383.00	2.29E-02
373641.00	3758583.00	4.68E-02	373641.00	3758583.00	1.68E-01	373641.00	3758583.00	7.15E-02	373641.00	3758483.00	5.16E-01	373641.00	3758483.00	6.05E-03	373641.00	3758483.00	6.05E-03	373641.00	3758483.00	2.81E-02
373641.00	3758683.00	1.32E-01	373641.00	3758583.00	5.26E-01	373641.00	3758583.00	7.99E-02	373641.00	3758583.00	8.50E-01	373641.00	3758583.00	6.68E-03	373641.00	3758583.00	6.68E-03	373641.00	3758583.00	3.45E-02
373641.00	3758783.00	1.27E-01	373641.00	3758783.00	4.94E-01	373641.00	3758683.00	7.53E-02	373641.00	3758683.00	6.43E-01	373641.00	3758683.00	6.57E-03	373641.00	3758683.00	6.57E-03	373641.00	3758683.00	3.12E-02
373641.00	3758883.00	1.16E-01	373641.00	3758783.00	3.95E-01	373641.00	3758783.00	6.12E-02	373641.00	3758783.00	4.79E-01	373641.00	3758783.00	6.18E-03	373641.00	3758783.00	6.18E-03	373641.00	3758783.00	3.12E-02

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10 , Concentrations, Units: ug/m3 , Emissions Averaging: Peak Month Average Day , Averaging Period: 8 Hours

Emissions Source: Break Wear (G001)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Fugitive Dust (G003)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Tire Wear (G005)		
Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019
369216.41	3758422.45	1.06E-01	369216.41	3758422.45	2.91E-01	369216.41	3758422.45	5.23E-02	369216.41	3758422.45	2.41E-01	369216.41	3758422.45	5.08E-03	369216.41	3758422.45	5.43E-03	369216.41	3758422.45	5.43E-03	369216.41	3758422.45	2.77E-02
369352.57	3755391.67	1.09E-01	369352.57	3755391.67	4.99E-01	369352.57	3755391.67	8.49E-02	369352.57	3755391.67	3.75E-01	369352.57	3755391.67	7.13E-03	369352.57	3755391.67	7.13E-03	369352.57	3755391.67	1.03E-02	369352.57	3755391.67	5.61E-02
369574.04	3758166.39	1.28E-01	369574.04	3758166.39	3.91E-01	369574.04	3758166.39	6.69E-02	369574.04	3758166.39	2.59E-01	369574.04	3758166.39	7.68E-03	369574.04	3758166.39	7.68E-03	369574.04	3758166.39	7.68E-03	369574.04	3758166.39	4.39E-02
369581.37	3758516.07	1.25E-01	369581.37	3758516.07	6.11E-02	369581.37	3758516.07	1.04E-02	369581.37	3758516.07	4.58E-02	369581.37	3758516.07	8.71E-04	369581.37	3758516.07	8.71E-04	369581.37	3758516.07	7.13E-03	369581.37	3758516.07	3.36E-02
369830.08	3755394.84	3.39E-01	369830.08	3755394.84	7.82E-01	369830.08	3755394.84	1.32E-01	369830.08	3755394.84	5.23E-01	369830.08	3755394.84	1.77E-02	369830.08	3755394.84	1.77E-02	369830.08	3755394.84	1.77E-02	369830.08	3755394.84	8.83E-02
370114.12	3758186.53	1.05E-01	370114.12	3758186.53	1.52E-01	370114.12	3758186.53	6.57E-02	370114.12	3758186.53	1.28E-01	370114.12	3758186.53	6.02E-03	370114.12	3758186.53	6.02E-03	370114.12	3758186.53	6.02E-03	370114.12	3758186.53	3.05E-02
371021.69	3757820.60	2.19E-01	371021.69	3757820.60	5.56E-01	371021.69	3757820.60	8.74E-02	371021.69	3757820.60	4.47E-01	371021.69	3757820.60	1.08E-02	371021.69	3757820.60	1.08E-02	371021.69	3757820.60	1.08E-02	371021.69	3757820.60	5.82E-02
366809.77	3757837.27	8.14E-02	366809.77	3757837.27	2.20E-01	366809.77	3757837.27	3.76E-02	366809.77	3757837.27	2.03E-01	366809.77	3757837.27	3.66E-03	366809.77	3757837.27	3.66E-03	366809.77	3757837.27	3.66E-03	366809.77	3757837.27	2.32E-02
366843.26	3757860.52	7.77E-02	366843.26	3757860.52	2.09E-01	366843.26	3757860.52	3.64E-02	366843.26	3757860.52	2.00E-01	366843.26	3757860.52	3.57E-03	366843.26	3757860.52	3.57E-03	366843.26	3757860.52	3.57E-03	366843.26	3757860.52	2.23E-02
366900.00	3758500.00	5.19E-02	366900.00	3758500.00	1.53E-01	366900.00	3758500.00	2.73E-02	366900.00	3758500.00	1.41E-01	366900.00	3758500.00	2.61E-03	366900.00	3758500.00	2.61E-03	366900.00	3758500.00	2.61E-03	366900.00	3758500.00	1.39E-02
366900.00	3762500.00	1.38E-02	366900.00	3762500.00	3.90E-02	366900.00	3762500.00	6.90E-03	366900.00	3762500.00	3.52E-02	366900.00	3762500.00	6.50E-04	366900.00	3762500.00	6.50E-04	366900.00	3762500.00	6.50E-04	366900.00	3762500.00	3.83E-03
366900.00	3763500.00	9.83E-03	366900.00	3763500.00	3.08E-02	366900.00	3763500.00	5.07E-03	366900.00	3763500.00	2.97E-02	366900.00	3763500.00	4.80E-04	366900.00	3763500.00	4.80E-04	366900.00	3763500.00	4.80E-04	366900.00	3763500.00	2.74E-03
366900.00	3764500.00	1.14E-02	366900.00	3764500.00	2.91E-02	366900.00	3764500.00	5.05E-03	366900.00	3764500.00	2.49E-02	366900.00	3764500.00	3.70E-04	366900.00	3764500.00	3.70E-04	366900.00	3764500.00	3.70E-04	366900.00	3764500.00	3.04E-03
366982.41	3757958.65	8.33E-02	366982.41	3757958.65	2.10E-01	366982.41	3757958.65	3.66E-02	366982.41	3757958.65	1.78E-01	366982.41	3757958.65	3.87E-03	366982.41	3757958.65	3.87E-03	366982.41	3757958.65	3.87E-03	366982.41	3757958.65	2.28E-02
367163.97	3758028.80	8.98E-02	367163.97	3758028.80	2.25E-01	367163.97	3758028.80	3.95E-02	367163.97	3758028.80	2.03E-01	367163.97	3758028.80	4.03E-03	367163.97	3758028.80	4.03E-03	367163.97	3758028.80	4.03E-03	367163.97	3758028.80	2.49E-02
367275.38	3757999.92	9.32E-02	367275.38	3757999.92	2.36E-01	367275.38	3757999.92	4.15E-02	367275.38	3757999.92	2.14E-01	367275.38	3757999.92	4.21E-03	367275.38	3757999.92	4.21E-03	367275.38	3757999.92	4.21E-03	367275.38	3757999.92	2.59E-02
367395.04	3758065.94	8.02E-02	367395.04	3758065.94	2.34E-01	367395.04	3758065.94	4.13E-02	367395.04	3758065.94	2.14E-01	367395.04	3758065.94	3.97E-03	367395.04	3758065.94	3.97E-03	367395.04	3758065.94	3.97E-03	367395.04	3758065.94	2.30E-02
367880.40	3758145.84	1.07E-01	367880.40	3758145.84	2.77E-01	367880.40	3758145.84	4.74E-02	367880.40	3758145.84	2.06E-01	367880.40	3758145.84	5.37E-03	367880.40	3758145.84	5.37E-03	367880.40	3758145.84	5.37E-03	367880.40	3758145.84	2.86E-02
367900.00	3761500.00	1.70E-02	367900.00	3761500.00	4.95E-02	367900.00	3761500.00	8.70E-03	367900.00	3761500.00	4.35E-02	367900.00	3761500.00	8.10E-04	367900.00	3761500.00	8.10E-04	367900.00	3761500.00	8.10E-04	367900.00	3761500.00	4.82E-03
367900.00	3762500.00	1.47E-02	367900.00	3762500.00	3.70E-02	367900.00	3762500.00	5.97E-03	367900.00	3762500.00	3.44E-02	367900.00	3762500.00	6.20E-04	367900.00	3762500.00	6.20E-04	367900.00	3762500.00	6.20E-04	367900.00	3762500.00	4.03E-03
367900.00	3763500.00	1.04E-02	367900.00	3763500.00	2.76E-02	367900.00	3763500.00	4.82E-03	367900.00	3763500.00	2.96E-02	367900.00	3763500.00	4.90E-04	367900.00	3763500.00	4.90E-04	367900.00	3763500.00	4.90E-04	367900.00	3763500.00	3.60E-03
368068.97	3758068.94	1.16E-01	368068.97	3758068.94	3.17E-01	368068.97	3758068.94	5.47E-02	368068.97	3758068.94	2.42E-01	368068.97	3758068.94	6.01E-03	368068.97	3758068.94	6.01E-03	368068.97	3758068.94	6.01E-03	368068.97	3758068.94	3.11E-02
368182.48	3758015.85	1.07E-01	368182.48	3758015.85	3.14E-01	368182.48	3758015.85	5.37E-02	368182.48	3758015.85	2.52E-01	368182.48	3758015.85	5.75E-03	368182.48	3758015.85	5.75E-03	368182.48	3758015.85	5.75E-03	368182.48	3758015.85	2.91E-02
368416.83	3757988.39	1.45E-01	368416.83	3757988.39	1.40E-01	368416.83	3757988.39	5.82E-02	368416.83	3757988.39	2.67E-01	368416.83	3757988.39	6.91E-03	368416.83	3757988.39	6.91E-03	368416.83	3757988.39	6.91E-03	368416.83	3757988.39	3.79E-02
368577.94	3757979.23	1.19E-01	368577.94	3757979.23	3.00E-01	368577.94	3757979.23	5.18E-02	368577.94	3757979.23	2.55E-01	368577.94	3757979.23	5.67E-03	368577.94	3757979.23	5.67E-03	368577.94	3757979.23	5.67E-03	368577.94	3757979.23	3.15E-02
368764.68	3758079.93	1.54E-01	368764.68	3758079.93	3.60E-01	368764.68	3758079.93	6.07E-02	368764.68	3758079.93	2.46E-01	368764.68	3758079.93	8.08E-03	368764.68	3758079.93	8.08E-03	368764.68	3758079.93	8.08E-03	368764.68	3758079.93	4.05E-02
368900.00	3754500.00	8.00E-02	368900.00	3754500.00	2.25E-01	368900.00	3754500.00	3.90E-02	368900.00	3754500.00	2.02E-01	368900.00	3754500.00	3.78E-03	368900.00	3754500.00	3.78E-03	368900.00	3754500.00	3.78E-03	368900.00	3754500.00	2.19E-02
368900.00	3759500.00	5.74E-02	368900.00	3759500.00	1.34E-01	368900.00	3759500.00	2.33E-02	368900.00	3759500.00	1.30E-01	368900.00	3759500.00	2.65E-03	368900.00	3759500.00	2.65E-03	368900.00	3759500.00	2.65E-03	368900.00	3759500.00	1.50E-02
368900.00	3761500.00	2.18E-02	368900.00	3761500.00	6.36E-02	368900.00	3761500.00	1.10E-02	368900.00	3761500.00	4.14E-02	368900.00	3761500.00	1.23E-03	368900.00	3761500.00	1.23E-03	368900.00	3761500.00	1.23E-03	368900.00	3761500.00	5.70E-03
368900.00	3762500.00	2.61E-02	368900.00	3762500.00	5.72E-02	368900.00	3762500.00	1.44E-02	368900.00	3762500.00	5.94E-02	368900.00	3762500.00	1.14E-03	368900.00	3762500.00	1.14E-03	368900.00	3762500.00	1.14E-03	368900.00	3762500.00	6.89E-03
368900.00	3763500.00	1.41E-02	368900.00	3763500.00	3.96E-02	368900.00	3763500.00	9.02E-03	368900.00	3763500.00	4.66E-02	368900.00	3763500.00	9.70E-04	368900.00	3763500.00	9.70E-04	368900.00	3763500.00	9.70E-04	368900.00	3763500.00	6.51E-03
368900.00	3764500.00	1.97E-02	368900.00	3764500.00	4.52E-02	368900.00	3764500.00	7.94E-03	368900.00	3764500.00	4.40E-02	368900.00	3764500.00	8.10E-04	368900.00	3764500.00	8.10E-04	368900.00	3764500.00	8.10E-04	368900.00	3764500.00	5.47E-03
368944.10	3758186.12	1.09E-01	368944.10	3758186.12	3.68E-01	368944.10	3758186.12	6.30E-02	368944.10	3758186.12	2.27E-01	368944.10	3758186.12	7.47E-03	368944.10	3758186.12	7.47E-03	368944.10	3758186.12	7.47E-03	368944.10	3758186.12	2.94E-02
369206.25	3758147.26	1.23E-01	369206.25	3758147.26	3.96E-01	369206.25	3758147.26	6.91E-02	369206.25	3758147.26	2.95E-01	369206.25	3758147.26	7.04E-03	369206.25	3758147.26	7.04E-03	369206.25	3758147.26	7.04E-03	369206.25	3758147.26	3.69E-02
369268.49	3758066.34	1.36E-01	369268.49	3758066.34	4.25E-01	369268.49	3758066.34	7.41E-02	369268.49	3758066.34	3.18E-01	369268.49	3758066.34	7.61E-03	369268.49	3758066.34	7.61E-03	369268.49	3758066.34	7.61E-03	369268.49	3758066.34	3.82E-02
369331.85	3757999.43	1.35E-01	369331.85	3757999.43	4.21E-01	369331.85	3757999.43	7.36E-02	369331.85	3757999.43	3.20E-01	369331.85	3757999.43	7.70E-03	369331.85	3757999.43	7.70E-03	369331.85	3757999.43	7.70E-03	369331.85	3757999.43	3.80E-02
369425.60	3758641.99	7.74E-02	369425.60	3758641.99	2.38E-01	369425.60	3758641.99	4.06E-02	369425.60	3758641.99	1.53E-01	369425.60	3758641.99	4.72E-03	369425.60	3758641.99	4.72E-03	369425.60	3758641.99	4.72E-03	369425.60	3758641.99	2.10E-02
369599.53	3758634.67	1.39E-01	369599.53	3758634.67	3.55E-01	369599.53	3758634.67

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10 , Concentrations, Units: ug/m3 , Emissions Averaging: Peak Month Average Day , Averaging Period: 8 Hours

Emissions Source: Break Wear (G001)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Fugitive Dust (G003)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Tire Wear (G005)		
Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019
372541.00	3756983.00	1.36E-01	372541.00	3756983.00	4.58E-01	372541.00	3756983.00	7.31E-02	372541.00	3756983.00	4.65E-01	372541.00	3756983.00	6.41E-03	372541.00	3756983.00	6.41E-03	372541.00	3756983.00	3.88E-02
372641.00	3756983.00	1.21E-01	372641.00	3756983.00	4.44E-01	372641.00	3756983.00	6.80E-02	372641.00	3756983.00	5.55E-01	372641.00	3756983.00	6.35E-03	372641.00	3756983.00	6.35E-03	372641.00	3756983.00	3.53E-02
372341.00	3756983.00	7.25E-02	372341.00	3756983.00	2.67E-01	372341.00	3756983.00	4.56E-02	372341.00	3756983.00	4.64E-01	372341.00	3756983.00	4.12E-03	372341.00	3756983.00	4.12E-03	372341.00	3756983.00	2.15E-02
372341.00	3756983.00	7.30E-02	372341.00	3756983.00	2.58E-01	372341.00	3756983.00	4.33E-02	372341.00	3756983.00	2.79E-01	372341.00	3756983.00	4.00E-03	372341.00	3756983.00	4.00E-03	372341.00	3756983.00	2.04E-02
372341.00	3756983.00	7.00E-02	372341.00	3756983.00	2.53E-01	372341.00	3756983.00	4.12E-02	372341.00	3756983.00	2.76E-01	372341.00	3756983.00	3.79E-03	372341.00	3756983.00	3.79E-03	372441.00	3756983.00	1.94E-02
372341.00	3756783.00	1.69E-01	372441.00	3756783.00	6.75E-01	372441.00	3756783.00	1.01E-01	372441.00	3756783.00	1.15E+00	372341.00	3756783.00	8.49E-03	372441.00	3756783.00	8.49E-03	372541.00	3756783.00	4.35E-02
372441.00	3756783.00	1.39E-01	372441.00	3756783.00	5.52E-01	372441.00	3756783.00	8.38E-02	372341.00	3756783.00	6.54E-01	372341.00	3756783.00	7.57E-03	372341.00	3756783.00	7.57E-03	372441.00	3756783.00	3.64E-02
372341.00	3756783.00	1.27E-01	372441.00	3756783.00	5.30E-01	372441.00	3756783.00	8.01E-02	372341.00	3756783.00	6.94E-01	372341.00	3756783.00	6.70E-03	372341.00	3756783.00	6.70E-03	372441.00	3756783.00	3.44E-02
372441.00	3756783.00	1.11E-01	372441.00	3756783.00	4.67E-01	372441.00	3756783.00	7.15E-02	372441.00	3756783.00	6.47E-01	372441.00	3756783.00	6.00E-03	372441.00	3756783.00	6.00E-03	372441.00	3756783.00	3.02E-02
372341.00	3756783.00	1.13E-01	372441.00	3756783.00	3.98E-01	372441.00	3756783.00	6.16E-02	372341.00	3756783.00	4.51E-01	372341.00	3756783.00	5.19E-03	372341.00	3756783.00	5.19E-03	372341.00	3756783.00	2.96E-02
372341.00	3756983.00	6.34E-02	372541.00	3756983.00	2.43E-01	372541.00	3756983.00	3.93E-02	372541.00	3756983.00	2.44E-01	372541.00	3756983.00	3.51E-03	372541.00	3756983.00	3.51E-03	372541.00	3756983.00	1.83E-02
372541.00	3757083.00	7.21E-02	372541.00	3757083.00	2.70E-01	372541.00	3757083.00	4.31E-02	372541.00	3757083.00	2.82E-01	372541.00	3757083.00	4.05E-03	372541.00	3757083.00	4.05E-03	372541.00	3757083.00	1.91E-02
372541.00	3757183.00	9.59E-02	372541.00	3757183.00	3.44E-01	372541.00	3757183.00	5.39E-02	372541.00	3757183.00	3.02E-01	372541.00	3757183.00	4.91E-03	372541.00	3757183.00	4.91E-03	372541.00	3757183.00	2.61E-02
372541.00	3757283.00	1.09E-01	372541.00	3757283.00	4.05E-01	372541.00	3757283.00	6.28E-02	372541.00	3757283.00	4.53E-01	372541.00	3757283.00	5.54E-03	372541.00	3757283.00	5.54E-03	372541.00	3757283.00	2.93E-02
372541.00	3757383.00	9.89E-02	372541.00	3757383.00	4.34E-01	372541.00	3757383.00	6.67E-02	372541.00	3757383.00	4.97E-01	372541.00	3757383.00	5.74E-03	372541.00	3757383.00	5.74E-03	372541.00	3757383.00	2.99E-02
372541.00	3757483.00	1.24E-01	372541.00	3757483.00	5.48E-01	372541.00	3757483.00	8.34E-02	372541.00	3757483.00	6.04E-01	372541.00	3757483.00	6.95E-03	372541.00	3757483.00	6.95E-03	372541.00	3757483.00	3.26E-02
372541.00	3757583.00	1.49E-01	372541.00	3757583.00	5.93E-01	372541.00	3757583.00	8.94E-02	372541.00	3757583.00	9.88E-01	372541.00	3757583.00	7.52E-03	372541.00	3757583.00	7.52E-03	372541.00	3757583.00	3.88E-02
372541.00	3757683.00	1.33E-01	372541.00	3757683.00	5.24E-01	372541.00	3757683.00	7.97E-02	372541.00	3757683.00	6.20E-01	372541.00	3757683.00	7.02E-03	372541.00	3757683.00	7.02E-03	372541.00	3757683.00	3.47E-02
366455.27	3762313.67	1.18E-02	366455.27	3762313.67	3.25E-02	366455.27	3762313.67	5.74E-03	366455.27	3762313.67	3.13E-02	366455.27	3762313.67	5.40E-04	366455.27	3762313.67	5.40E-04	366455.27	3762313.67	3.26E-03
366669.62	3763342.53	9.99E-03	366669.62	3763342.53	3.05E-02	366669.62	3763342.53	5.33E-03	366669.62	3763342.53	3.09E-02	366669.62	3763342.53	5.10E-04	366669.62	3763342.53	5.10E-04	366669.62	3763342.53	2.86E-03
366871.31	3762769.21	9.56E-03	366871.31	3762769.21	3.66E-02	366871.31	3762769.21	6.48E-03	366871.31	3762769.21	3.45E-02	366871.31	3762769.21	6.10E-04	366871.31	3762769.21	6.10E-04	366871.31	3762769.21	3.60E-03
367494.53	3758314.82	8.05E-02	367494.53	3758314.82	1.91E-01	367494.53	3758314.82	3.28E-02	367494.53	3758314.82	1.59E-01	367494.53	3758314.82	3.51E-03	367494.53	3758314.82	3.51E-03	367494.53	3758314.82	2.17E-02
367575.16	3764900.80	9.36E-03	367575.16	3764900.80	2.52E-02	367575.16	3764900.80	4.40E-03	367575.16	3764900.80	2.56E-02	367575.16	3764900.80	4.20E-04	367575.16	3764900.80	4.20E-04	367575.16	3764900.80	2.67E-03
367638.49	3757975.16	8.58E-02	367638.49	3757975.16	2.59E-01	367638.49	3757975.16	4.58E-02	367638.49	3757975.16	2.34E-01	367638.49	3757975.16	4.38E-03	367638.49	3757975.16	4.38E-03	367638.49	3757975.16	2.47E-02
367728.62	3761967.19	1.45E-02	367728.62	3761967.19	4.22E-02	367728.62	3761967.19	7.44E-03	367728.62	3761967.19	3.87E-02	367728.62	3761967.19	6.90E-04	367728.62	3761967.19	6.90E-04	367728.62	3761967.19	4.10E-03
367787.59	3758292.62	9.03E-02	367787.59	3758292.62	2.56E-01	367787.59	3758292.62	4.43E-02	367787.59	3758292.62	1.92E-01	367787.59	3758292.62	4.79E-03	367787.59	3758292.62	4.79E-03	367787.59	3758292.62	2.43E-02
367831.34	3763245.91	1.27E-02	367831.34	3763245.91	3.00E-02	367831.34	3763245.91	5.20E-03	367831.34	3763245.91	2.75E-02	367831.34	3763245.91	5.40E-04	367831.34	3763245.91	5.40E-04	367831.34	3763245.91	3.47E-03
367900.00	3758500.00	9.08E-02	367900.00	3758500.00	2.23E-01	367900.00	3758500.00	3.83E-02	367900.00	3758500.00	1.61E-01	367900.00	3758500.00	4.48E-03	367900.00	3758500.00	4.48E-03	367900.00	3758500.00	2.43E-02
367926.08	3763311.36	1.27E-02	367926.08	3763311.36	3.08E-02	367926.08	3763311.36	5.36E-03	367926.08	3763311.36	2.82E-02	367926.08	3763311.36	5.90E-04	367926.08	3763311.36	5.90E-04	367926.08	3763311.36	3.52E-03
367964.98	3758232.97	8.62E-02	367964.98	3758232.97	2.57E-01	367964.98	3758232.97	4.42E-02	367964.98	3758232.97	1.97E-01	367964.98	3758232.97	4.50E-03	367964.98	3758232.97	4.50E-03	367964.98	3758232.97	2.28E-02
367976.37	3763316.74	1.24E-02	367976.37	3763316.74	3.10E-02	367976.37	3763316.74	5.41E-03	367976.37	3763316.74	2.90E-02	367976.37	3763316.74	5.70E-04	367976.37	3763316.74	5.70E-04	367976.37	3763316.74	3.47E-03
367978.91	3758190.10	9.83E-02	367978.91	3758190.10	2.31E-01	367978.91	3758190.10	3.95E-02	367978.91	3758190.10	1.68E-01	367978.91	3758190.10	4.76E-03	367978.91	3758190.10	4.76E-03	367978.91	3758190.10	2.61E-02
368188.78	3758591.47	7.85E-02	368188.78	3758591.47	1.96E-01	368188.78	3758591.47	3.38E-02	368188.78	3758591.47	1.44E-01	368188.78	3758591.47	4.29E-03	368188.78	3758591.47	4.29E-03	368188.78	3758591.47	2.07E-02
368501.11	3761632.38	1.77E-02	368501.11	3761632.38	4.66E-02	368501.11	3761632.38	8.04E-03	368501.11	3761632.38	4.11E-02	368501.11	3761632.38	9.00E-04	368501.11	3761632.38	9.00E-04	368501.11	3761632.38	4.88E-03
368505.49	3758571.22	1.01E-01	368505.49	3758571.22	2.69E-01	368505.49	3758571.22	4.57E-02	368505.49	3758571.22	1.73E-01	368505.49	3758571.22	5.55E-03	368505.49	3758571.22	5.55E-03	368505.49	3758571.22	2.72E-02
368673.29	3761677.69	1.49E-02	368673.29	3761677.69	5.36E-02	368673.29	3761677.69	9.28E-03	368673.29	3761677.69	3.99E-02	368673.29	3761677.69	1.01E-03	368673.29	3761677.69	1.01E-03	368673.29	3761677.69	4.15E-03
368693.42	3758159.47	1.12E-01	368693.42	3758159.47	3.13E-01	368693.42	3758159.47	5.33E-02	368693.42	3758159.47	1.93E-01	368693.42	3758159.47	6.53E-03	368693.42	3758159.47	6.53E-03	368693.42	3758159.47	2.99E-02
368842.92	3761590.39	1.87E-02	368842.92	3761590.39	6.07E-02	368842.92	3761590.39	1.06E-02	368842.92	3761590.39	3.98E-02	368842.92	3761590.39	1.15E-03	368842.92	3761590.39	1.15E-03	368842.92	3761590.39	4.90E-03
368869.11	3754097.89	6.00E-02	368869.11	3754097.89	1.92E-01	368869.11	3754097.89	3.30E-02	368869.11	3754097.89	1.46E-01	368869.11	3754097.89	3.32E-03	368869.11	3754097.89	3.32E-03	368869.11	3754097.89	1.64E-02
368869.83	3763067.00	1.75E-02	368869.83	3763067.00	4.16E-02	368869.83	3763067.00	7.33E-03	368869.83	3763067.00	4.13E-02	368869.83	3763067.00	7.30E-04	368869.83	3763067.00	7.30E-04	368869.83	3763067.00	4.91E-03
368949.99	3761647.20	2.74E-02	368949.99	3761647.20	6.47E-02	368949.99	3761647.20	1.12E-02	368949.99	3761647.20	4.54E-02	368949.99	3761647.20	1.32E-03	368949.99	3761647.20	1.32E-03	368949.99	3761647.20	7.19E-03
368970.54	3754677.64	2.56E-02	368970.54	3754677.64	4.43E-02	368970.54	3754677.64	2.33E-01	368970.54	3754677.64	2.33E-01	368970.54	3754677.64	4.31E-03	368970.54	3754677.64	4.31E-03	368970.54	3754677.64	2.48E-02
369007.11	3762513.11	2.90E-02	369007.11	3762513.11	6.12E-02	369007.11	3762513.11	1.07E-02	369007.11	3762513.11	5.34E-02	369007.11	3762513.11	1.19E-03	369007.11	3762513.11	1.19E-03	369007.11	3762513.11	7.73E-03
369227.99	3762251.91	3.06E-02	369227.99	3762251.91	6.84E-02	369227.99	3762251.91	1.20E-02	369227.99	3762251.91	6.23E-02	369227.99	3762251.91	1.27E-03	369227.99	3762251.91	1.27E-03	369227.99	3762251.91	8.34E-03
369242.37	3754695.62	9.45E-02	369242.37	3754695.62	2.44E-01	369242.37	3754695.62	4.24E-02	369242.37	3754695.62	1.88E-01	369242.37	3754695.62	4.41E-03	369242.37	3754695.62	4.41E-03	369242.37	3754695.62	2.54E-02

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10 , Concentrations, Units: ug/m3 , Emissions Averaging: Peak Month Average Day , Averaging Period: 8 Hours

Emissions Source: Break Wear (G001)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Fugitive Dust (G003)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Tire Wear (G005)		
Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019
369456.98	3762567.48	1.89E-02	369456.98	3762567.48	6.08E-02	369456.98	3762567.48	1.08E-02	369456.98	3762567.48	5.66E-02	369456.98	3762567.48	1.00E-03	369456.98	3762567.48	1.00E-03	369456.98	3762567.48	5.62E-03
369504.00	3754702.08	1.30E-01	369504.00	3754702.08	2.78E-01	369504.00	3754702.08	4.81E-02	369504.00	3754702.08	2.14E-01	369504.00	3754702.08	5.52E-03	369504.00	3754702.08	5.52E-03	369504.00	3754702.08	3.42E-02
369767.91	3761150.98	2.14E-02	369767.91	3761150.98	8.42E-02	369767.91	3761150.98	1.48E-02	369767.91	3761150.98	6.60E-02	369767.91	3761150.98	1.37E-03	369767.91	3761150.98	1.37E-03	369767.91	3761150.98	6.21E-03
369809.34	3764567.65	1.17E-02	369809.34	3764567.65	3.23E-02	369809.34	3764567.65	5.70E-03	369809.34	3764567.65	2.19E-02	369809.34	3764567.65	5.20E-04	369809.34	3764567.65	5.20E-04	369809.34	3764567.65	3.20E-03
369845.18	3754154.97	1.44E-01	369845.18	3754154.97	3.83E-01	369845.18	3754154.97	6.49E-02	369845.18	3754154.97	2.36E-01	369845.18	3754154.97	8.02E-03	369845.18	3754154.97	8.02E-03	369845.18	3754154.97	3.85E-02
369848.41	3753976.49	1.31E-01	369848.41	3753976.49	3.26E-01	369848.41	3753976.49	5.59E-02	369848.41	3753976.49	2.16E-01	369848.41	3753976.49	6.61E-03	369848.41	3753976.49	6.61E-03	369848.41	3753976.49	3.14E-02
370097.88	3760014.31	4.72E-02	370097.88	3760014.31	1.43E-01	370097.88	3760014.31	2.51E-02	370097.88	3760014.31	1.11E-01	370097.88	3760014.31	2.35E-03	370097.88	3760014.31	2.35E-03	370097.88	3760014.31	1.28E-02
370150.95	3754699.75	1.47E-01	370150.95	3754699.75	3.43E-01	370150.95	3754699.75	6.06E-02	370150.95	3754699.75	2.56E-01	370150.95	3754699.75	7.01E-03	370150.95	3754699.75	7.01E-03	370150.95	3754699.75	3.85E-02
370319.96	3758860.70	6.25E-02	370319.96	3758860.70	2.39E-01	370319.96	3758860.70	4.22E-02	370319.96	3758860.70	1.99E-01	370319.96	3758860.70	3.57E-03	370319.96	3758860.70	3.57E-03	370319.96	3758860.70	1.88E-02
370243.17	3759622.98	4.84E-02	370243.17	3759622.98	1.62E-01	370243.17	3759622.98	2.83E-02	370243.17	3759622.98	1.25E-01	370243.17	3759622.98	2.42E-03	370243.17	3759622.98	2.42E-03	370243.17	3759622.98	1.39E-02
370246.20	3754243.12	1.09E-01	370246.20	3754243.12	2.58E-01	370246.20	3754243.12	4.30E-02	370246.20	3754243.12	2.11E-01	370246.20	3754243.12	5.40E-03	370246.20	3754243.12	5.40E-03	370246.20	3754243.12	2.90E-02
370290.74	3759464.60	4.00E-02	370290.74	3759464.60	1.60E-01	370290.74	3759464.60	2.81E-02	370290.74	3759464.60	1.18E-01	370290.74	3759464.60	2.25E-03	370290.74	3759464.60	2.25E-03	370290.74	3759464.60	1.18E-02
370608.78	3762239.97	1.30E-02	370608.78	3762239.97	4.10E-02	370608.78	3762239.97	7.27E-03	370608.78	3762239.97	3.48E-02	370608.78	3762239.97	6.00E-04	370608.78	3762239.97	6.00E-04	370608.78	3762239.97	3.68E-03
370614.80	3762181.53	1.31E-02	370614.80	3762181.53	4.13E-02	370614.80	3762181.53	7.33E-03	370614.80	3762181.53	3.48E-02	370614.80	3762181.53	6.30E-04	370614.80	3762181.53	6.30E-04	370614.80	3762181.53	3.71E-03
370625.96	3763759.08	9.88E-03	370625.96	3763759.08	3.04E-02	370625.96	3763759.08	5.37E-03	370625.96	3763759.08	2.79E-02	370625.96	3763759.08	4.60E-04	370625.96	3763759.08	4.60E-04	370625.96	3763759.08	2.78E-03
370723.56	3763867.78	9.56E-03	370723.56	3763867.78	2.78E-02	370723.56	3763867.78	4.93E-03	370723.56	3763867.78	2.51E-02	370723.56	3763867.78	4.20E-04	370723.56	3763867.78	4.20E-04	370723.56	3763867.78	2.72E-03
370968.58	3759443.63	6.89E-02	370968.58	3759443.63	1.74E-01	370968.58	3759443.63	2.96E-02	370968.58	3759443.63	1.55E-01	370968.58	3759443.63	3.55E-03	370968.58	3759443.63	3.55E-03	370968.58	3759443.63	1.86E-02
371139.34	3758179.30	1.50E-01	371139.34	3758179.30	4.42E-01	371139.34	3758179.30	6.92E-02	371139.14	3758179.30	2.89E-01	371139.14	3758179.30	8.65E-03	371139.14	3758179.30	8.65E-03	371139.14	3758179.30	3.61E-02
371316.06	3762577.75	1.30E-02	371316.06	3762577.75	4.21E-02	371316.05	3762577.75	7.55E-03	371316.05	3762577.75	3.54E-02	371316.05	3762577.75	7.40E-04	371316.05	3762577.75	7.40E-04	371316.05	3762577.75	4.31E-03
371212.40	3759371.61	4.50E-02	371212.40	3759371.61	1.31E-01	371212.40	3759371.61	2.19E-02	371212.40	3759371.61	1.32E-01	371212.40	3759371.61	2.26E-03	371212.40	3759371.61	2.26E-03	371212.40	3759371.61	1.20E-02
371197.81	3758892.65	1.31E-02	371197.81	3758892.65	3.18E-02	371197.81	3758892.65	5.52E-03	371197.81	3758892.65	3.13E-02	371197.81	3758892.65	3.51E-03	371197.81	3758892.65	3.51E-03	371197.81	3758892.65	2.11E-02
372687.72	3759513.01	1.56E-02	372687.72	3759513.01	1.36E-01	372687.72	3759513.01	2.38E-02	372687.72	3759513.01	1.23E-01	372687.72	3759513.01	2.42E-03	372687.72	3759513.01	2.42E-03	372687.72	3759513.01	1.55E-02
372943.49	3761051.66	2.89E-02	372943.49	3761051.66	7.26E-02	372943.49	3761051.66	1.25E-02	372943.49	3761051.66	7.11E-02	372943.49	3761051.66	1.40E-03	372943.49	3761051.66	1.40E-03	372943.49	3761051.66	7.81E-03
373546.52	3760907.48	2.50E-02	373546.52	3760907.48	8.46E-02	373546.52	3760907.48	1.47E-02	373546.52	3760907.48	6.49E-02	373546.52	3760907.48	1.43E-03	373546.52	3760907.48	1.43E-03	373546.52	3760907.48	7.15E-03
373716.60	3756503.93	5.09E-02	373716.60	3756503.93	1.43E-01	373716.60	3756503.93	2.51E-02	373716.60	3756503.93	1.42E-01	373716.60	3756503.93	2.38E-03	373716.60	3756503.93	2.38E-03	373716.60	3756503.93	1.47E-02
373718.20	3758043.23	8.55E-02	373718.20	3758043.23	3.48E-01	373718.20	3758043.23	5.37E-02	373718.20	3758043.23	3.67E-01	373718.20	3758043.23	4.64E-03	373718.20	3758043.23	4.64E-03	373718.20	3758043.23	2.24E-02
373781.58	3755802.14	3.82E-02	373781.58	3755802.14	9.77E-02	373781.58	3755802.14	1.71E-02	373781.58	3755802.14	1.00E-01	373781.58	3755802.14	1.72E-03	373781.58	3755802.14	1.72E-03	373781.58	3755802.14	1.09E-02
373814.20	3759040.57	4.33E-02	373814.20	3759040.57	1.19E-01	373814.20	3759040.57	2.10E-02	373814.20	3759040.57	1.22E-01	373814.20	3759040.57	1.91E-03	373814.20	3759040.57	1.91E-03	373814.20	3759040.57	1.26E-02
373990.06	3753826.14	4.31E-02	373990.06	3753826.14	1.05E-01	373990.06	3753826.14	1.83E-02	373990.06	3753826.14	9.53E-02	373990.06	3753826.14	1.81E-03	373990.06	3753826.14	1.81E-03	373990.06	3753826.14	1.20E-02
374057.73	3758196.51	6.76E-02	374057.73	3758196.51	2.77E-01	374057.73	3758196.51	4.30E-02	374057.73	3758196.51	2.98E-01	374057.73	3758196.51	3.81E-03	374057.73	3758196.51	3.81E-03	374057.73	3758196.51	1.78E-02
374270.95	3758173.42	3.17E-02	374270.95	3758173.42	2.00E-01	374270.95	3758173.42	3.17E-02	374270.95	3758173.42	2.05E-01	374270.95	3758173.42	3.23E-03	374270.95	3758173.42	3.23E-03	374270.95	3758173.42	1.73E-02
374561.05	3757642.94	6.74E-02	374561.05	3757642.94	2.70E-01	374561.05	3757642.94	4.26E-02	374561.05	3757642.94	3.78E-01	374561.05	3757642.94	3.98E-03	374561.05	3757642.94	3.98E-03	374561.05	3757642.94	1.80E-02
374688.84	3758184.90	5.25E-02	374688.84	3758184.90	1.69E-01	374688.84	3758184.90	2.69E-02	374688.84	3758184.90	1.67E-01	374688.84	3758184.90	2.65E-03	374688.84	3758184.90	2.65E-03	374688.84	3758184.90	1.39E-02
374693.96	3758983.17	5.24E-02	374693.96	3758983.17	1.70E-01	374693.96	3758983.17	2.70E-02	374693.96	3758983.17	1.67E-01	374693.96	3758983.17	2.65E-03	374693.96	3758983.17	2.65E-03	374693.96	3758983.17	1.38E-02
374717.46	3762574.39	3.51E-02	374717.46	3762574.39	3.43E-02	374717.46	3762574.39	6.03E-03	374717.46	3762574.39	2.85E-02	374717.46	3762574.39	6.40E-04	374717.46	3762574.39	6.40E-04	374717.46	3762574.39	4.05E-03
375503.80	3764537.77	1.22E-02	375503.80	3764537.77	3.35E-02	375503.80	3764537.77	5.81E-03	375503.80	3764537.77	2.83E-02	375503.80	3764537.77	5.90E-04	375503.80	3764537.77	5.90E-04	375503.80	3764537.77	3.40E-03
375614.97	3760555.10	5.42E-02	375614.97	3760555.10	1.49E-01	375614.97	3760555.10	2.54E-02	375614.97	3760555.10	1.59E-01	375614.97	3760555.10	2.59E-03	375614.97	3760555.10	2.59E-03	375614.97	3760555.10	1.24E-02
375718.04	3758204.95	5.29E-02	375718.04	3758204.95	1.69E-01	375718.04	3758204.95	2.67E-02	375718.04	3758204.95	1.69E-01	375718.04	3758204.95	3.02E-03	375718.04	3758204.95	3.02E-03	375718.04	3758204.95	1.43E-02
375902.79	3764940.52	1.07E-02	375902.79	3764940.52	2.56E-02	375902.79	3764940.52	4.47E-03	375902.79	3764940.52	2.64E-02	375902.79	3764940.52	4.40E-04	375902.79	3764940.52	4.40E-04	375902.79	3764940.52	3.00E-03
375908.38	3763918.71	1.31E-02	375908.38	3763918.71	3.71E-02	375908.38	3763918.71	6.44E-03	375908.38	3763918.71	3.13E-02	375908.38	3763918.71	6.30E-04	375908.38	3763918.71	6.30E-04	375908.38	3763918.71	3.60E-03
375920.60	3762083.39	1.91E-02	375920.60	3762083.39	6.76E-02	375920.60	3762083.39	1.18E-02	375920.60	3762083.39	5.88E-02	375920.60	3762083.39	9.80E-04	375920.60	3762083.39	9.80E-04	375920.60	3762083.39	5.76E-03
376709.15	3756388.48	2.25E-02	376709.15	3756388.48	6.32E-02	376709.15	3756388.48	1.10E-02	376709.15	3756388.48	6.00E-02	376709.15	3756388.48	1.06E-03	376709.15	3756388.48	1.06E-03	376709.15	3756388.48	6.90E-03
376814.39	3754856.21	1.67E-02	376814.39	3754856.21	4.10E-02	376814.39	3754856.21	7.17E-03	376814.39	3754856.21	4.32E-02	376814.39

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10 , Concentrations, Units: ug/m3 , Emissions Averaging: Peak Month Average Day , Averaging Period: 8 Hours

Emissions Source: Break Wear (G001)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Fugitive Dust (G003)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Tire Wear (G005)		
Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019
372641.00	3757183.00	2.19E-01	372641.00	3757183.00	7.21E-01	372641.00	3757183.00	1.12E-01	372641.00	3757183.00	5.74E-01	372641.00	3757183.00	1.21E-02	372641.00	3757183.00	1.23E-02	372641.00	3757183.00	5.41E-02
372641.00	3757283.00	3.14E-01	372641.00	3757283.00	9.82E-01	372641.00	3757283.00	1.49E-01	372641.00	3757283.00	7.97E-01	372641.00	3757283.00	1.62E-02	372641.00	3757283.00	1.65E-02	372641.00	3757283.00	7.89E-02
372641.00	3757783.00	1.05E+00	372641.00	3757783.00	2.20E+00	372641.00	3757783.00	3.38E-01	372641.00	3757783.00	1.99E+00	372641.00	3757783.00	5.15E-02	372641.00	3757783.00	5.15E-02	372641.00	3757783.00	3.08E-01
372641.00	3757883.00	3.99E-01	372641.00	3757883.00	1.11E+00	372641.00	3757883.00	1.71E-01	372641.00	3757883.00	7.34E-01	372641.00	3757883.00	2.28E-02	372641.00	3757883.00	2.28E-02	372641.00	3757883.00	1.16E-01
372641.00	3757983.00	2.19E-01	372641.00	3757983.00	7.50E-01	372641.00	3757983.00	1.17E-01	372641.00	3757983.00	6.67E-01	372641.00	3757983.00	1.42E-02	372641.00	3757983.00	1.42E-02	372641.00	3757983.00	6.15E-02
372641.00	3758083.00	1.55E-01	372641.00	3758083.00	5.17E-01	372641.00	3758083.00	8.52E-02	372641.00	3758083.00	6.24E-01	372641.00	3758083.00	8.48E-03	372641.00	3758083.00	8.48E-03	372641.00	3758083.00	4.23E-02
372641.00	3757183.00	2.22E-01	372641.00	3757183.00	6.69E-01	372641.00	3757183.00	1.03E-01	372641.00	3757183.00	5.98E-01	372641.00	3757183.00	1.15E-02	372641.00	3757183.00	1.15E-02	372641.00	3757183.00	5.63E-02
372641.00	3757283.00	2.39E-01	372641.00	3757283.00	7.47E-01	372641.00	3757283.00	1.14E-01	372641.00	3757283.00	6.63E-01	372641.00	3757283.00	1.26E-02	372641.00	3757283.00	1.26E-02	372641.00	3757283.00	6.00E-02
372641.00	3757483.00	3.62E-01	372641.00	3757483.00	1.21E+00	372641.00	3757483.00	1.84E-01	372641.00	3757483.00	1.08E+00	372641.00	3757483.00	1.81E-02	372641.00	3757483.00	1.81E-02	372641.00	3757483.00	8.78E-02
372641.00	3757583.00	4.35E-01	372641.00	3757583.00	1.24E+00	372641.00	3757583.00	1.92E-01	372641.00	3757583.00	1.03E+00	372641.00	3757583.00	2.46E-02	372641.00	3757583.00	2.46E-02	372641.00	3757583.00	1.15E-01
372641.00	3757683.00	4.68E-01	372641.00	3757683.00	1.62E+00	372641.00	3757683.00	2.49E-01	372641.00	3757683.00	1.20E+00	372641.00	3757683.00	3.79E-02	372641.00	3757683.00	3.79E-02	372641.00	3757683.00	1.98E-01
372641.00	3757783.00	6.77E-01	372641.00	3757783.00	1.61E+00	372641.00	3757783.00	2.46E-01	372641.00	3757783.00	1.22E+00	372641.00	3757783.00	3.44E-02	372641.00	3757783.00	3.44E-02	372641.00	3757783.00	1.98E-01
372641.00	3757883.00	1.48E-01	372641.00	3757883.00	4.96E-01	372641.00	3757883.00	8.08E-02	372641.00	3757883.00	6.32E-01	372641.00	3757883.00	7.94E-03	372641.00	3757883.00	7.94E-03	372641.00	3757883.00	4.44E-02
372641.00	3757983.00	1.64E-01	372641.00	3757983.00	5.85E-01	372641.00	3757983.00	9.30E-02	372641.00	3757983.00	6.12E-01	372641.00	3757983.00	9.14E-03	372641.00	3757983.00	9.14E-03	372641.00	3757983.00	4.58E-02
372641.00	3758083.00	1.93E-01	372641.00	3758083.00	6.46E-01	372641.00	3758083.00	1.03E-01	372641.00	3758083.00	6.88E-01	372641.00	3758083.00	9.62E-03	372641.00	3758083.00	9.62E-03	372641.00	3758083.00	4.80E-02
372641.00	3757383.00	2.36E-01	372641.00	3757383.00	9.00E-01	372641.00	3757383.00	1.39E-01	372641.00	3757383.00	8.75E-01	372641.00	3757383.00	1.25E-02	372641.00	3757383.00	1.25E-02	372641.00	3757383.00	6.54E-02
372641.00	3757483.00	3.39E-01	372641.00	3757483.00	1.10E+00	372641.00	3757483.00	1.68E-01	372641.00	3757483.00	9.35E-01	372641.00	3757483.00	1.62E-02	372641.00	3757483.00	1.62E-02	372641.00	3757483.00	9.88E-02
372641.00	3757583.00	3.59E-01	372641.00	3757583.00	1.19E+00	372641.00	3757583.00	1.82E-01	372641.00	3757583.00	9.87E-01	372641.00	3757583.00	1.98E-02	372641.00	3757583.00	1.98E-02	372641.00	3757583.00	9.54E-02
372641.00	3757683.00	4.74E-01	372641.00	3757683.00	1.13E+00	372641.00	3757683.00	1.72E-01	372641.00	3757683.00	1.02E+00	372641.00	3757683.00	2.54E-02	372641.00	3757683.00	2.54E-02	372641.00	3757683.00	1.34E-01
372641.00	3757783.00	5.07E-01	372641.00	3757783.00	1.19E+00	372641.00	3757783.00	1.86E-01	372641.00	3757783.00	9.96E-01	372641.00	3757783.00	2.54E-02	372641.00	3757783.00	2.54E-02	372641.00	3757783.00	1.40E-01
372641.00	3757883.00	1.38E-01	372641.00	3757883.00	5.14E-01	372641.00	3757883.00	7.92E-02	372641.00	3757883.00	6.36E-01	372641.00	3757883.00	7.48E-03	372641.00	3757883.00	7.48E-03	372641.00	3757883.00	4.02E-02
372641.00	3757983.00	1.65E-01	372641.00	3757983.00	5.62E-01	372641.00	3757983.00	8.69E-02	372641.00	3757983.00	7.48E-01	372641.00	3757983.00	8.54E-03	372641.00	3757983.00	8.54E-03	372641.00	3757983.00	5.16E-02
372641.00	3758083.00	2.01E-01	372641.00	3758083.00	8.07E-01	372641.00	3758083.00	1.24E-01	372641.00	3758083.00	9.86E-01	372641.00	3758083.00	1.01E-02	372641.00	3758083.00	1.01E-02	372641.00	3758083.00	6.21E-02
372641.00	3757383.00	3.29E-01	372641.00	3757383.00	1.32E+00	372641.00	3757383.00	1.99E-01	372641.00	3757383.00	1.04E+00	372641.00	3757383.00	1.70E-02	372641.00	3757383.00	1.70E-02	372641.00	3757383.00	9.91E-02
372641.00	3757483.00	4.83E-01	372641.00	3757483.00	1.51E+00	372641.00	3757483.00	2.30E-01	372641.00	3757483.00	1.23E+00	372641.00	3757483.00	2.08E-02	372641.00	3757483.00	2.08E-02	372641.00	3757483.00	1.47E-01
372641.00	3757583.00	2.95E-01	372641.00	3757583.00	1.25E+00	372641.00	3757583.00	1.89E-01	372641.00	3757583.00	1.09E+00	372641.00	3757583.00	1.66E-02	372641.00	3757583.00	1.66E-02	372641.00	3757583.00	8.46E-02
372641.00	3757683.00	3.60E-01	372641.00	3757683.00	8.89E-01	372641.00	3757683.00	1.36E-01	372641.00	3757683.00	9.46E-01	372641.00	3757683.00	1.94E-02	372641.00	3757683.00	1.94E-02	372641.00	3757683.00	9.98E-02
372641.00	3757783.00	3.66E-01	372641.00	3757783.00	9.61E-01	372641.00	3757783.00	1.49E-01	372641.00	3757783.00	7.82E-01	372641.00	3757783.00	1.89E-02	372641.00	3757783.00	1.89E-02	372641.00	3757783.00	9.86E-02
372641.00	3757883.00	3.55E-01	372641.00	3757883.00	8.37E-01	372641.00	3757883.00	1.32E-01	372641.00	3757883.00	7.38E-01	372641.00	3757883.00	1.72E-02	372641.00	3757883.00	1.72E-02	372641.00	3757883.00	9.64E-02
372641.00	3757983.00	3.17E-01	372641.00	3757983.00	8.06E-01	372641.00	3757983.00	1.27E-01	372641.00	3757983.00	7.00E-01	372641.00	3757983.00	1.58E-02	372641.00	3757983.00	1.58E-02	372641.00	3757983.00	9.12E-02
372641.00	3758083.00	1.57E-01	372641.00	3758083.00	5.36E-01	372641.00	3758083.00	8.47E-02	372641.00	3758083.00	5.35E-01	372641.00	3758083.00	7.86E-03	372641.00	3758083.00	7.86E-03	372641.00	3758083.00	4.71E-02
372641.00	3757383.00	3.10E-01	372641.00	3757383.00	7.13E-01	372641.00	3757383.00	1.11E-01	372641.00	3757383.00	9.44E-01	372641.00	3757383.00	9.94E-03	372641.00	3757383.00	9.94E-03	372641.00	3757383.00	6.76E-02
372641.00	3757583.00	2.88E-01	372641.00	3757583.00	9.87E-01	372641.00	3757583.00	1.51E-01	372641.00	3757583.00	1.09E+00	372641.00	3757583.00	1.45E-02	372641.00	3757583.00	1.45E-02	372641.00	3757583.00	9.22E-02
372641.00	3757783.00	5.47E-01	372641.00	3757783.00	2.12E+00	372641.00	3757783.00	3.18E-01	372641.00	3757783.00	1.61E+00	372641.00	3757783.00	2.81E-02	372641.00	3757783.00	2.81E-02	372641.00	3757783.00	1.73E-01
372641.00	3757883.00	9.11E-01	372641.00	3757883.00	3.08E+00	372641.00	3757883.00	4.67E-01	372641.00	3757883.00	1.90E+00	372641.00	3757883.00	4.32E-02	372641.00	3757883.00	4.32E-02	372641.00	3757883.00	2.90E-01
372641.00	3757983.00	4.16E-01	372641.00	3757983.00	1.38E+00	372641.00	3757983.00	2.12E-01	372641.00	3757983.00	1.20E+00	372641.00	3757983.00	2.11E-02	372641.00	3757983.00	2.11E-02	372641.00	3757983.00	1.31E-01
372641.00	3758083.00	2.93E-01	372641.00	3758083.00	7.59E-01	372641.00	3758083.00	1.15E-01	372641.00	3758083.00	8.74E-01	372641.00	3758083.00	1.58E-02	372641.00	3758083.00	1.58E-02	372641.00	3758083.00	4.03E-01
372641.00	3757383.00	2.62E-01	372641.00	3757383.00	7.76E-01	372641.00	3757383.00	1.21E-01	372641.00	3757383.00	9.72E-01	372641.00	3757383.00	1.44E-02	372641.00	3757383.00	1.44E-02	372641.00	3757383.00	7.03E-02
372641.00	3757483.00	3.10E-01	372641.00	3757483.00	7.48E-01	372641.00	3757483.00	1.17E-01	372641.00	3757483.00	6.81E-01	372641.00	3757483.00	1.49E-02	372641.00	3757483.00	1.49E-02	372641.00	3757483.00	8.38E-02
372641.00	3757583.00	2.65E-01	372641.00	3757583.00	7.01E-01	372641.00	3757583.00	1.09E-01	372641.00	3757583.00	6.27E-01	372641.00	3757583.00	1.30E-02	372641.00	3757583.00	1.30E-02	372641.00	3757583.00	7.71E-02
372641.00	3757683.00	1.27E+00	372641.00	3757683.00	4.02E+00	372641.00	3757683.00	6.11E-01	372641.00	3757683.00	2.09E+00	372641.00	3757683.00	5.98E-02	372641.00	3757683.00	5.98E-02	372641.00	3757683.00	4.18E-01
372641.00	3757783.00	1.43E+00	372641.00	3757783.00	3.76E+00	372641.00	3757783.00	5.74E-01	372641.00	3757783.00	2.27E+00	372641.00	3757783.00	5.58E-02	372641.00	3757783.00	5.58E-02	372641.00	3757783.00	3.16E-01
372641.00	3757883.00	4.30E-01	372641.00	3757883.00	1.56E+00	372641.00	3757883.00	2.40E-01	372641.00	3757883.00	1.62E+00	372641.00	3757883.00	2.31E-02	372641.00	3757883.00	2.31E-02	372641.00	3757883.00	1.39E-01
372641.00	3757983.00	2.61E-01	372641.00	3757983.00	9.54E-01	372641.00	3757983.00	1.47E-01	372641.00	3757983.00	1.69E+00	372641.00	3757983.00	1.44E-02	372641.00	3757983.00	1.44E-02	372641.00	3757983.00	8.08E-02
372641.00	3758083.00	2.30E-01	372641.00	3758083.00	7.25E-01	372641.00	3758083.00	1.12E-01	372641.00	3758083.00	7.20E-01	372641.00	3758083.00	1.20E-02	372641.00	3758083.00	1.20E-02	372641.00	3758083.00	6.47E-02

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10 , Concentrations, Units: ug/m3 , Emissions Averaging: Peak Month Average Day , Averaging Period: 8 Hours

Emissions Source: Break Wear (G001)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Diesel Exhaust (G002)			Emissions Source: Fugitive Dust (G003)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Gasoline Exhaust (G004)			Emissions Source: Tire Wear (G005)		
Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation)			Without Mitigation			With Mitigation			Without Mitigation (no practical mitigation		
UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019_M	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019	UTM X	UTM Y	2019
372641.00	3757883.00	2.51E-01	372641.00	3757883.00	6.57E-01	372641.00	3757883.00	1.03E-01	372641.00	3757883.00	5.95E-01	372641.00	3757883.00	1.26E-02	372641.00	3757883.00	1.26E-02	372641.00	3757883.00	6.71E-02
372641.00	3757983.00	2.38E-01	372641.00	3757983.00	5.87E-01	372641.00	3757983.00	9.28E-02	372641.00	3757983.00	5.38E-01	372641.00	3757983.00	1.15E-02	372641.00	3757983.00	1.15E-02	372641.00	3757983.00	6.39E-02
372741.00	3757683.00	2.76E-01	372741.00	3757683.00	8.98E-01	372741.00	3757683.00	1.39E-01	372741.00	3757683.00	1.41E+00	372741.00	3757683.00	1.43E-02	372741.00	3757683.00	1.43E-02	372741.00	3757683.00	8.29E-02
372741.00	3757783.00	2.29E-01	372741.00	3757783.00	7.49E-01	372741.00	3757783.00	1.15E-01	372741.00	3757783.00	6.75E-01	372741.00	3757783.00	1.22E-02	372741.00	3757783.00	1.22E-02	372741.00	3757783.00	6.50E-02
372741.00	3757883.00	1.98E-01	372741.00	3757883.00	6.35E-01	372741.00	3757883.00	9.72E-02	372741.00	3757883.00	5.63E-01	372741.00	3757883.00	1.05E-02	372741.00	3757883.00	1.05E-02	372741.00	3757883.00	5.33E-02
372741.00	3757983.00	2.19E-01	372741.00	3757983.00	5.43E-01	372741.00	3757983.00	8.57E-02	372741.00	3757983.00	5.16E-01	372741.00	3757983.00	1.04E-02	372741.00	3757983.00	1.04E-02	372741.00	3757983.00	5.86E-02
372741.00	3758083.00	2.12E-01	372841.00	3757783.00	6.90E-01	372841.00	3757783.00	1.07E-01	372841.00	3757783.00	8.61E-01	372841.00	3757783.00	1.07E-02	372841.00	3757783.00	1.07E-02	372841.00	3757783.00	6.05E-02
372841.00	3757883.00	1.95E-01	372841.00	3757883.00	5.93E-01	372841.00	3757883.00	8.95E-02	372841.00	3757883.00	6.76E-01	372841.00	3757883.00	9.26E-03	372841.00	3757883.00	9.26E-03	372841.00	3757883.00	5.43E-02
372841.00	3757983.00	1.91E-01	372841.00	3757983.00	5.02E-01	372841.00	3757983.00	7.73E-02	372841.00	3757983.00	5.35E-01	372841.00	3757983.00	9.21E-03	372841.00	3757983.00	9.21E-03	372841.00	3757983.00	5.07E-02
372841.00	3758683.00	8.15E-02	372841.00	3758683.00	2.58E-01	372841.00	3758683.00	4.54E-02	372841.00	3758683.00	2.68E-01	372841.00	3758683.00	4.13E-03	372841.00	3758683.00	4.13E-03	372841.00	3758683.00	2.44E-02
372851.00	3759854.91	9.53E-02	372851.00	3759854.91	3.30E-01	372851.00	3759854.91	5.45E-02	372851.00	3759854.91	4.28E-01	372851.00	3759854.91	4.97E-03	372851.00	3759854.91	4.97E-03	372851.00	3759854.91	2.84E-02
372900.00	3758500.00	1.10E-01	372900.00	3758500.00	3.40E-01	372900.00	3758500.00	5.67E-02	372900.00	3758500.00	3.66E-01	372900.00	3758500.00	6.26E-03	372900.00	3758500.00	6.26E-03	372900.00	3758500.00	3.10E-02
372900.00	3763500.00	8.39E-03	372900.00	3763500.00	2.50E-02	372900.00	3763500.00	4.06E-03	372900.00	3763500.00	2.36E-02	372900.00	3763500.00	4.30E-04	372900.00	3763500.00	4.30E-04	372900.00	3763500.00	2.06E-03
372900.00	3764500.00	1.13E-02	372900.00	3764500.00	5.01E-02	372900.00	3764500.00	8.77E-03	372900.00	3764500.00	3.80E-02	372900.00	3764500.00	7.60E-04	372900.00	3764500.00	7.60E-04	372900.00	3764500.00	3.52E-03
372941.00	3757783.00	1.80E-01	372941.00	3757783.00	6.96E-01	372941.00	3757783.00	1.04E-01	372941.00	3757783.00	9.01E-01	372941.00	3757783.00	9.05E-03	372941.00	3757783.00	9.05E-03	372941.00	3757783.00	4.95E-02
372941.00	3757883.00	1.61E-01	372941.00	3757883.00	5.85E-01	372941.00	3757883.00	8.90E-02	372941.00	3757883.00	7.02E-01	372941.00	3757883.00	8.29E-03	372941.00	3757883.00	8.29E-03	372941.00	3757883.00	4.25E-02
372941.00	3757983.00	1.61E-01	372941.00	3757983.00	5.04E-01	372941.00	3757983.00	7.75E-02	372941.00	3757983.00	5.76E-01	372941.00	3757983.00	8.06E-03	372941.00	3757983.00	8.06E-03	372941.00	3757983.00	4.24E-02
373035.50	3759453.68	3.27E-02	373035.50	3759453.68	1.14E-01	373035.50	3759453.68	2.02E-02	373035.50	3759453.68	1.15E-01	373035.50	3759453.68	1.74E-03	373035.50	3759453.68	1.74E-03	373035.50	3759453.68	9.58E-03
373035.50	3759652.82	3.75E-02	373035.50	3759652.82	1.21E-01	373035.50	3759652.82	1.97E-02	373035.50	3759652.82	1.30E-01	373035.50	3759652.82	1.90E-03	373035.50	3759652.82	1.90E-03	373035.50	3759652.82	9.20E-03
373041.00	3757783.00	1.67E-01	373041.00	3757783.00	6.67E-01	373041.00	3757783.00	9.71E-02	373041.00	3757783.00	9.41E-01	373041.00	3757783.00	8.26E-03	373041.00	3757783.00	8.26E-03	373041.00	3757783.00	4.76E-02
373041.00	3757883.00	1.50E-01	373041.00	3757883.00	5.41E-01	373041.00	3757883.00	8.10E-02	373041.00	3757883.00	7.61E-01	373041.00	3757883.00	7.58E-03	373041.00	3757883.00	7.58E-03	373041.00	3757883.00	3.99E-02
373041.00	3757983.00	1.33E-01	373041.00	3757983.00	4.83E-01	373041.00	3757983.00	7.30E-02	373041.00	3757983.00	5.65E-01	373041.00	3757983.00	7.08E-03	373041.00	3757983.00	7.08E-03	373041.00	3757983.00	3.48E-02
373141.00	3757783.00	1.55E-01	373141.00	3757783.00	6.25E-01	373141.00	3757783.00	9.32E-02	373141.00	3757783.00	8.38E-01	373141.00	3757783.00	7.96E-03	373141.00	3757783.00	7.96E-03	373141.00	3757783.00	4.22E-02
373141.00	3757883.00	1.47E-01	373141.00	3757883.00	4.96E-01	373141.00	3757883.00	7.57E-02	373141.00	3757883.00	5.41E-01	373141.00	3757883.00	7.06E-03	373141.00	3757883.00	7.06E-03	373141.00	3757883.00	3.94E-02
373141.00	3757983.00	1.21E-01	373141.00	3757983.00	4.08E-01	373141.00	3757983.00	6.16E-02	373141.00	3757983.00	5.26E-01	373141.00	3757983.00	6.41E-03	373141.00	3757983.00	6.41E-03	373141.00	3757983.00	3.21E-02
373241.00	3757783.00	1.44E-01	373241.00	3757783.00	6.13E-01	373241.00	3757783.00	9.33E-02	373241.00	3757783.00	1.00E+00	373241.00	3757783.00	7.68E-03	373241.00	3757783.00	7.68E-03	373241.00	3757783.00	3.92E-02
373241.00	3757883.00	1.36E-01	373241.00	3757883.00	4.81E-01	373241.00	3757883.00	7.25E-02	373241.00	3757883.00	6.16E-01	373241.00	3757883.00	6.62E-03	373241.00	3757883.00	6.62E-03	373241.00	3757883.00	3.64E-02
373241.00	3757983.00	1.24E-01	373241.00	3757983.00	4.05E-01	373241.00	3757983.00	6.20E-02	373241.00	3757983.00	4.38E-01	373241.00	3757983.00	6.05E-03	373241.00	3757983.00	6.05E-03	373241.00	3757983.00	3.36E-02
373247.31	3756833.85	8.00E-02	373247.31	3756833.85	2.45E-01	373247.31	3756833.85	4.33E-02	373247.31	3756833.85	2.79E-01	373247.31	3756833.85	3.79E-03	373247.31	3756833.85	3.79E-03	373247.31	3756833.85	2.36E-02
373250.82	3756654.89	7.08E-02	373250.82	3756654.89	2.09E-01	373250.82	3756654.89	3.69E-02	373250.82	3756654.89	2.42E-01	373250.82	3756654.89	3.37E-03	373250.82	3756654.89	3.37E-03	373250.82	3756654.89	2.01E-02
373258.92	3754548.54	5.26E-02	373258.92	3754548.54	1.60E-01	373258.92	3754548.54	1.78E-02	373258.92	3754548.54	9.30E-02	373258.92	3754548.54	1.68E-03	373258.92	3754548.54	1.68E-03	373258.92	3754548.54	8.31E-03
373278.35	3755647.97	3.18E-02	373278.35	3755647.97	1.02E-01	373278.35	3755647.97	1.66E-02	373278.35	3755647.97	9.77E-02	373278.35	3755647.97	1.76E-03	373278.35	3755647.97	1.76E-03	373278.35	3755647.97	8.72E-03
373341.00	3757783.00	1.35E-01	373341.00	3757783.00	6.03E-01	373341.00	3757783.00	9.11E-02	373341.00	3757783.00	7.96E-01	373341.00	3757783.00	7.13E-03	373341.00	3757783.00	7.13E-03	373341.00	3757783.00	3.66E-02
373341.00	3757883.00	1.20E-01	373341.00	3757883.00	4.81E-01	373341.00	3757883.00	7.37E-02	373341.00	3757883.00	6.47E-01	373341.00	3757883.00	6.41E-03	373341.00	3757883.00	6.41E-03	373341.00	3757883.00	3.19E-02
373341.00	3757983.00	1.23E-01	373341.00	3757983.00	3.99E-01	373341.00	3757983.00	6.23E-02	373341.00	3757983.00	4.79E-01	373341.00	3757983.00	5.85E-03	373341.00	3757983.00	5.85E-03	373341.00	3757983.00	3.30E-02
373341.00	3758083.00	7.21E-02	373441.00	3757783.00	2.92E-01	373441.00	3757783.00	4.42E-02	373441.00	3757783.00	2.91E-01	373441.00	3757783.00	4.98E-03	373441.00	3757783.00	4.98E-03	373441.00	3757783.00	2.02E-02
373441.00	3757883.00	9.92E-02	373441.00	3757883.00	3.65E-01	373441.00	3757883.00	5.73E-02	373441.00	3757883.00	3.57E-01	373441.00	3757883.00	5.29E-03	373441.00	3757883.00	5.29E-03	373441.00	3757883.00	2.71E-02
373441.00	3757983.00	1.22E-01	373441.00	3757983.00	4.52E-01	373441.00	3757983.00	6.99E-02	373441.00	3757983.00	4.77E-01	373441.00	3757983.00	6.16E-03	373441.00	3757983.00	6.16E-03	373441.00	3757983.00	3.30E-02
373441.00	3758083.00	1.17E-01	373441.00	3758083.00	5.11E-01	373441.00	3758083.00	7.83E-02	373441.00	3758083.00	6.13E-01	373441.00	3758083.00	6.61E-03	373441.00	3758083.00	6.61E-03	373441.00	3758083.00	3.04E-02
373441.00	3757483.00	1.44E-01	373441.00	3757483.00	6.39E-01	373441.00	3757483.00	9.66E-02	373441.00	3757483.00	7.34E-01	373441.00	3757483.00	7.92E-03	373441.00	3757483.00	7.92E-03	373441.00	3757483.00	3.79E-02
373441.00	3757583.00	4.30E-02	373441.00	3757583.00	1.41E-01	373441.00	3757583.00	2.40E-02	373441.00	3757583.00	1.55E-01	373441.00	3757583.00	2.52E-03	373441.00	3757583.00	2.52E-03	373441.00	3757583.00	1.17E-02
373441.00	3756250.00	1.56E-02	373441.00	3756250.00	4.46E-02	373441.00	3756250.00	7.25E-03	373441.00	3756250.00	4.96E-02	373441.00	3756250.00	8.40E-04	373441.00	3756250.00	8.40E-04	373441.00	3756250.00	4.20E-03
373441.00	3756350.00	1.17E-02	373441.00	3756350.00	3.42E-02	373441.00	3756350.00	5.93E-03	373441.00	3756350.00	2.79E-02	373441.00

LAX Landside Access Modernization Program Project, Final EIR

January 2019 8-Hr

Pollutant: PM10, Concentrations, Units: ug/m3 , Emissions Averaging Peak Month Average Day , Averaging Period: 8 Hours

		Emissions Source: Break Wear (GI01)			Emissions Source: Diesel Exhaust (GI02)			Emissions Source: Fugitive Dust (GI03)			Emissions Source: Gasoline Exhaust (GI04)			Emissions Source: Tire Wear (GI05)		
		Without Mitigation	With Mitigation	With Mitigation (no practical mitigation)	Without Mitigation	With Mitigation	With Mitigation (no practical mitigation)	Without Mitigation	With Mitigation	With Mitigation (no practical mitigation)	Without Mitigation	With Mitigation	With Mitigation (no practical mitigation)	Without Mitigation	With Mitigation	With Mitigation (no practical mitigation)
UTM X	UTM Y	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019
369131.40	3758945.42	1.32E-02	3758500.00	3758500.00	4.13E-02	3758500.00	3758500.00	6.47E-01	3758500.00	3758500.00	4.09E-02	3758500.00	3758500.00	6.46E-04	3759900.00	3759900.00
370190.78	3758848.26	1.00E-05	3759900.00	3757500.00	1.98E-01	3759900.00	3757500.00	1.98E-02	3759900.00	3757500.00	1.31E-01	3759900.00	3757500.00	1.57E-03	3759900.00	3757500.00
370747.03	3763937.58	0.00E+00	3759900.00	3758900.00	1.98E-01	3759900.00	3758900.00	1.98E-02	3759900.00	3758900.00	1.57E-01	3759900.00	3758900.00	2.37E-03	3759900.00	3758900.00
370757.72	3755124.52	1.00E-05	3759900.00	3759900.00	1.38E-01	3759900.00	3759900.00	2.09E-02	3759900.00	3759900.00	1.26E-01	3759900.00	3759900.00	2.00E-03	3759900.00	3759900.00
370946.70	3758260.69	1.00E-05	3760900.00	3753900.00	3.31E-02	3760900.00	3753900.00	5.24E-03	3760900.00	3753900.00	3.58E-02	3760900.00	3753900.00	5.00E-04	3760900.00	3753900.00
371368.79	3754218.82	1.00E-05	3760900.00	3754600.00	1.44E-02	3760900.00	3754600.00	5.98E-03	3760900.00	3754600.00	3.07E-02	3760900.00	3754600.00	5.82E-04	3760900.00	3754600.00
371786.04	3754168.42	1.00E-05	3760900.00	3757500.00	9.17E-02	3760900.00	3757500.00	1.48E-02	3760900.00	3757500.00	1.06E-01	3760900.00	3757500.00	1.33E-03	3760900.00	3757500.00
373756.25	3761779.11	0.00E+00	3761300.00	3761300.00	5.04E-02	3761300.00	3761300.00	8.83E-03	3761300.00	3761300.00	4.23E-02	3761300.00	3761300.00	8.33E-04	3761300.00	3761300.00
367734.03	3758536.57	1.00E-05	3759900.00	3757500.00	3.87E-02	3759900.00	3757500.00	1.29E-02	3759900.00	3757500.00	1.13E-01	3759900.00	3757500.00	1.05E-03	3759900.00	3757500.00
368069.11	3760165.13	0.00E+00	3761300.00	3761300.00	1.96E-02	3761300.00	3761300.00	3.43E-03	3761300.00	3761300.00	1.64E-02	3761300.00	3761300.00	3.23E-04	3761300.00	3761300.00
369125.38	3763066.25	0.00E+00	3761300.00	3761300.00	3.87E-02	3761300.00	3761300.00	1.35E-02	3761300.00	3761300.00	9.22E-02	3761300.00	3761300.00	1.05E-03	3761300.00	3761300.00
369225.45	3764227.42	0.00E+00	3761300.00	3761300.00	2.14E-02	3761300.00	3761300.00	3.74E-03	3761300.00	3761300.00	1.79E-02	3761300.00	3761300.00	3.52E-04	3761300.00	3761300.00
370236.75	3761140.30	0.00E+00	3759900.00	3757500.00	2.14E-02	3759900.00	3757500.00	3.74E-03	3759900.00	3757500.00	1.79E-02	3759900.00	3757500.00	3.52E-04	3759900.00	3757500.00
372218.41	3759157.53	1.00E-05	3759900.00	3753900.00	7.32E-03	3759900.00	3753900.00	2.32E-02	3759900.00	3753900.00	1.74E-02	3759900.00	3753900.00	3.35E-04	3759900.00	3753900.00
372267.44	3762986.25	0.00E+00	3759900.00	3758900.00	3.43E-02	3759900.00	3758900.00	1.96E-01	3759900.00	3758900.00	1.49E-01	3759900.00	3758900.00	1.71E-03	3759900.00	3758900.00
374498.14	3758643.27	2.00E-05	3809900.00	3764200.00	2.02E-02	3809900.00	3764200.00	6.06E-02	3809900.00	3764200.00	1.02E-02	3809900.00	3764200.00	1.01E-03	3809900.00	3764200.00
375472.61	3759680.03	1.00E-05	3819900.00	3753900.00	9.36E-03	3819900.00	3753900.00	2.34E-02	3819900.00	3753900.00	4.44E-03	3819900.00	3753900.00	2.48E-02	3819900.00	3753900.00
375514.38	3757500.61	2.00E-05	3819900.00	3758900.00	1.97E-02	3819900.00	3758900.00	7.35E-02	3819900.00	3758900.00	1.21E-02	3819900.00	3758900.00	9.23E-02	3819900.00	3758900.00
377395.41	3759189.37	1.00E-05	3819900.00	3758900.00	1.09E-02	3819900.00	3758900.00	4.07E-02	3819900.00	3758900.00	7.78E-03	3819900.00	3758900.00	5.23E-02	3819900.00	3758900.00
366363.62	3757753.10	1.00E-05	3819900.00	3759900.00	1.41E-02	3819900.00	3759900.00	4.99E-02	3819900.00	3759900.00	8.01E-03	3819900.00	3759900.00	4.93E-02	3819900.00	3759900.00
369385.71	3758351.85	1.00E-05	3819900.00	3760900.00	1.17E-02	3819900.00	3760900.00	3.92E-02	3819900.00	3760900.00	6.26E-03	3819900.00	3760900.00	4.51E-02	3819900.00	3760900.00
369388.19	3758584.61	1.00E-05	3819900.00	3761300.00	1.99E-02	3819900.00	3761300.00	3.32E-02	3819900.00	3761300.00	5.88E-03	3819900.00	3761300.00	3.33E-02	3819900.00	3761300.00

Construction_HHRA_Inputs_PM10_Acute.xlsx

Pollutant: ROG, Emissions Source: Architectural Coatings, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
369131.40	3758945.42	1.00E-05	6.10E-04	6.10E-04	4.50E-04	2.60E-04	1.30E-04	1.20E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370190.78	3758848.26	1.00E-05	7.50E-04	7.90E-04	4.60E-04	3.30E-04	1.70E-04	1.90E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370747.03	3763937.58	0.00E+00	9.00E-05	1.10E-04	7.00E-05	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370757.72	3755124.52	1.00E-05	1.17E-03	1.14E-03	9.50E-04	4.80E-04	2.40E-04	2.00E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370946.70	3758260.69	1.00E-05	1.81E-03	1.84E-03	8.70E-04	5.90E-04	3.00E-04	4.60E-04	1.90E-04	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371368.79	3754218.82	1.00E-05	6.00E-04	6.00E-04	4.80E-04	2.50E-04	1.20E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371786.04	3754168.42	1.00E-05	5.10E-04	5.50E-04	4.50E-04	2.50E-04	1.20E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373756.25	3761779.11	0.00E+00	1.80E-04	1.90E-04	1.00E-04	9.00E-05	5.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367734.03	3758536.57	1.00E-05	8.20E-04	7.50E-04	5.80E-04	3.00E-04	1.50E-04	1.40E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368069.11	3760165.13	0.00E+00	3.70E-04	3.80E-04	2.70E-04	1.70E-04	9.00E-05	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369125.38	3763066.25	0.00E+00	1.30E-04	1.50E-04	1.10E-04	8.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369225.45	3764227.42	0.00E+00	1.00E-04	1.10E-04	8.00E-05	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370236.75	3761140.30	0.00E+00	1.90E-04	2.40E-04	1.80E-04	1.40E-04	7.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372218.41	3759157.53	1.00E-05	8.80E-04	9.20E-04	4.80E-04	3.70E-04	2.00E-04	1.90E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372267.44	3762986.25	0.00E+00	9.00E-05	1.00E-04	5.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374498.14	3758643.27	2.00E-05	2.14E-03	2.41E-03	1.17E-03	1.15E-03	6.10E-04	4.90E-04	2.00E-04	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375472.61	3759680.03	1.00E-05	8.50E-04	8.70E-04	4.40E-04	3.80E-04	2.00E-04	1.90E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375514.38	3757500.61	2.00E-05	1.12E-03	1.58E-03	1.20E-03	1.26E-03	7.30E-04	2.50E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377395.41	3759189.37	1.00E-05	9.00E-04	1.05E-03	6.20E-04	5.90E-04	3.20E-04	2.00E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366363.62	3757753.10	1.00E-05	1.09E-03	9.10E-04	7.20E-04	3.20E-04	1.50E-04	1.60E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369385.71	3758351.85	1.00E-05	9.60E-04	9.70E-04	7.90E-04	4.40E-04	2.10E-04	1.80E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369388.19	3758584.61	1.00E-05	7.80E-04	8.00E-04	6.10E-04	3.40E-04	1.70E-04	1.50E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371727.30	3758286.14	1.00E-05	2.65E-03	2.62E-03	1.10E-03	8.30E-04	4.40E-04	5.60E-04	2.40E-04	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371973.18	3757657.28	5.00E-05	7.06E-02	4.32E-02	3.18E-03	1.89E-03	1.70E-03	3.39E-02	1.65E-02	1.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
372028.99	3757658.28	5.00E-05	6.82E-02	4.62E-02	3.27E-03	1.98E-03	1.66E-03	2.65E-02	1.25E-02	1.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
372057.72	3757303.44	1.60E-04	1.14E-02	1.02E-02	4.56E-03	2.65E-03	1.46E-03	2.07E-03	1.25E-03	2.00E-05	2.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
372058.94	3757365.68	1.30E-04	1.94E-02	1.51E-02	4.26E-03	2.58E-03	1.42E-03	2.80E-03	1.61E-03	2.00E-05	2.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
372114.76	3757419.38	1.10E-04	2.52E-02	2.40E-02	4.08E-03	2.63E-03	1.50E-03	4.15E-03	2.09E-03	2.00E-05	2.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
372149.51	3757302.81	1.50E-04	1.01E-02	1.03E-02	4.52E-03	2.88E-03	1.65E-03	1.71E-03	8.90E-04	2.00E-05	2.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
366675.72	3757743.67	1.00E-05	1.20E-03	1.01E-03	8.10E-04	3.50E-04	1.70E-04	1.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367105.41	3757963.83	1.00E-05	1.14E-03	9.90E-04	7.90E-04	3.70E-04	1.80E-04	1.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367221.30	3757911.68	1.00E-05	1.21E-03	1.04E-03	8.40E-04	3.80E-04	1.90E-04	1.90E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367346.43	3757955.57	1.00E-05	1.20E-03	1.04E-03	8.40E-04	3.90E-04	1.90E-04	1.90E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367457.41	3758010.28	1.00E-05	1.17E-03	1.02E-03	8.20E-04	3.80E-04	1.90E-04	1.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367730.93	3758222.91	1.00E-05	1.06E-03	9.50E-04	7.20E-04	3.50E-04	1.70E-04	1.70E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367995.30	3758074.68	1.00E-05	1.27E-03	1.13E-03	8.50E-04	4.10E-04	2.00E-04	2.00E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369154.15	3758166.98	1.00E-05	1.29E-03	1.23E-03	1.00E-03	5.40E-04	2.60E-04	2.30E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369214.54	3758209.64	1.00E-05	1.32E-03	1.18E-03	9.80E-04	5.30E-04	2.60E-04	2.20E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369279.67	3758015.34	1.00E-05	1.51E-03	1.45E-03	1.19E-03	6.30E-04	3.00E-04	2.80E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369788.09	3758340.35	1.00E-05	1.06E-03	1.11E-03	8.50E-04	5.00E-04	2.30E-04	2.00E-04	8.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369790.55	3758580.31	1.00E-05	9.10E-04	9.10E-04	6.20E-04	3.70E-04	1.80E-04	1.80E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371537.21	3756959.02	2.33E-03	1.49E-02	7.79E-03	9.02E-03	3.92E-03	1.75E-03	1.27E-03	4.80E-04	3.00E-05	3.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
371736.26	3757371.88	1.10E-04	3.86E-02	2.41E-02	4.80E-03	2.20E-03	1.21E-03	7.44E-03	3.37E-03	3.00E-05	3.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
371795.72	3757393.54	1.00E-04	5.72E-02	3.42E-02	4.54E-03	2.19E-03	1.26E-03	8.82E-03	4.08E-03	3.00E-05	3.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
371925.67	3757658.96	5.00E-05	5.20E-02	3.96E-02	3.09E-03	1.82E-03	1.78E-03	3.92E-02	1.84E-02	1.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
367720.95	3757929.47	1.00E-05	1.33E-03	1.16E-03	9.30E-04	4.30E-04	2.10E-04	2.10E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366410.42	3757645.39	1.00E-05	1.16E-03	9.60E-04	7.70E-04	3.30E-04	1.60E-04	1.70E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366412.06	3757743.84	1.00E-05	1.11E-03	9.30E-04	7.40E-04	3.30E-04	1.60E-04	1.70E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366449.10	3757556.84	1.00E-05	1.22E-03	1.01E-03	8.00E-04	3.40E-04	1.70E-04	1.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366471.13	3757711.22	1.00E-05	1.15E-03	9.60E-04	7.70E-04	3.30E-04	1.60E-04	1.70E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366487.79	3757468.29	1.00E-05	1.27E-03	1.05E-03	8.30E-04	3.50E-04	1.70E-04	1.90E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366526.47	3757379.74	1.00E-05	1.33E-03	1.10E-03	8.70E-04	3.70E-04	1.80E-04	2.00E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366543.32	3757684.41	1.00E-05	1.20E-03	1.00E-03	7.90E-04	3.50E-04	1.70E-04	1.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366565.16	3757291.19	1.00E-05	1.39E-03	1.14E-03	9.10E-04	3.80E-04	1.80E-04	2.00E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366572.51	3757755.35	1.00E-05	1.19E-03	1.02E-03	8.20E-04	3.60E-04	1.70E-04	1.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366603.85	3757202.64	1.00E-05	1.45E-03	1.19E-03	9.40E-04	3.90E-04	1.90E-04	2.10E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366629.35	3757738.18	1.00E-05	1.23E-03	1.05E-03	8.50E-04	3.80E-04	1.80E-04	1.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366642.53	3757114.09	1.00E-05	1.52E-03	1.23E-03	9.80E-04	4.00E-04	1.90E-04	2.20E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366681.22	3757025.54	1.00E-05	1.58E-03	1.28E-03	1.01E-03	4.10E-04	2.00E-04	2.20E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366700.77	3757739.37	1.00E-05	1.22E-03	1.02E-03	8.10E-04	3.60E-04	1.70E-04	1.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366719.91	3757693.99	1.00E-05	1.64E-03	1.32E-03	1.05E-03	4.20E-04	2.00E-04	2.30E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366758.59	3756848.44	1.00E-05	1.70E-03	1.37E-03	1.08E-03	4.30E-04	2.00E-04	2.40E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366780.64	3757782.90	1.00E-05	1.21E-03	1.02E-03	8.10E-04	3.60E-04	1.70E-04	1.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366797.28	3756759.89	1.00E-05	1.75E-03	1.41E-03	1.11E-03	4.40E-04	2.10E-04	2.50E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_ROG_Annual.xlsx

Annual ROG Summary by Source

Attachment F.1.3

Construction Concentrations– Toxic Air Contaminants

- Annual ROG Inputs

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Architectural Coatings, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
366835.96	3756671.34	1.00E-05	1.79E-03	1.44E-03	1.13E-03	4.50E-04	2.10E-04	2.50E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366869.69	3757831.79	1.00E-05	1.19E-03	1.00E-03	8.10E-04	3.60E-04	1.80E-04	1.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366874.65	3756582.79	1.00E-05	1.83E-03	1.47E-03	1.15E-03	4.50E-04	2.10E-04	2.60E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3756500.00	1.00E-05	1.83E-03	1.47E-03	1.15E-03	4.50E-04	2.10E-04	2.60E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366913.34	3756494.23	1.00E-05	1.85E-03	1.48E-03	1.16E-03	4.50E-04	2.10E-04	2.70E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366921.75	3757860.58	1.00E-05	1.18E-03	1.00E-03	8.00E-04	3.60E-04	1.80E-04	1.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366952.02	3756405.68	1.00E-05	1.86E-03	1.49E-03	1.16E-03	4.50E-04	2.10E-04	2.70E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366982.97	3757895.00	1.00E-05	1.17E-03	1.00E-03	8.00E-04	3.60E-04	1.80E-04	1.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366990.71	3756317.13	1.00E-05	1.85E-03	1.49E-03	1.16E-03	4.50E-04	2.10E-04	2.70E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367029.39	3756228.58	1.00E-05	1.83E-03	1.47E-03	1.14E-03	4.50E-04	2.10E-04	2.70E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367044.19	3757529.41	1.00E-05	1.16E-03	9.90E-04	8.00E-04	3.70E-04	1.80E-04	1.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367068.08	3756140.03	1.00E-05	1.87E-03	1.45E-03	1.13E-03	4.40E-04	2.10E-04	2.70E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367106.77	3756051.48	1.00E-05	1.77E-03	1.43E-03	1.11E-03	4.40E-04	2.10E-04	2.60E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367145.45	3755962.93	1.00E-05	1.72E-03	1.39E-03	1.08E-03	4.30E-04	2.00E-04	2.60E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367163.35	3757937.75	1.00E-05	1.15E-03	1.02E-03	8.30E-04	3.90E-04	1.90E-04	1.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367184.14	3755874.38	1.00E-05	1.69E-03	1.37E-03	1.06E-03	4.20E-04	2.00E-04	2.50E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367222.83	3755785.83	1.00E-05	1.65E-03	1.34E-03	1.04E-03	4.20E-04	2.00E-04	2.50E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367261.51	3755697.28	1.00E-05	1.62E-03	1.32E-03	1.02E-03	4.20E-04	2.00E-04	2.50E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367284.84	3757912.25	1.00E-05	1.23E-03	1.06E-03	8.50E-04	3.90E-04	1.90E-04	1.90E-04	6

Pollutant: ROG, Emissions Source: Architectural Coatings, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
368748.06	3758034.51	1.00E-05	1.54E-03	1.39E-03	1.08E-03	5.40E-04	2.60E-04	2.50E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368771.48	3755472.04	2.00E-05	2.93E-03	2.38E-03	1.91E-03	7.70E-04	3.60E-04	4.80E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368806.72	3758070.98	1.00E-05	1.51E-03	1.37E-03	1.05E-03	5.20E-04	2.50E-04	2.50E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368863.73	3755470.88	2.00E-05	2.89E-03	2.37E-03	1.93E-03	7.80E-04	3.60E-04	4.90E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368865.39	3758107.46	1.00E-05	1.48E-03	1.35E-03	1.04E-03	5.20E-04	2.50E-04	2.50E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368931.37	3758150.49	1.00E-05	1.42E-03	1.30E-03	1.01E-03	5.10E-04	2.50E-04	2.40E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368955.99	3755469.72	2.00E-05	2.82E-03	2.33E-03	1.94E-03	7.90E-04	3.70E-04	4.90E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368974.29	3758177.61	1.00E-05	1.36E-03	1.26E-03	9.90E-04	5.10E-04	2.50E-04	2.30E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368992.63	3758138.09	1.00E-05	1.43E-03	1.32E-03	1.03E-03	5.30E-04	2.50E-04	2.40E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369011.06	3758086.77	1.00E-05	1.52E-03	1.39E-03	1.09E-03	5.50E-04	2.70E-04	2.60E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369048.25	3755468.56	2.00E-05	2.72E-03	2.28E-03	1.93E-03	7.90E-04	3.70E-04	4.80E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369097.31	3758131.13	1.00E-05	1.39E-03	1.31E-03	1.04E-03	5.50E-04	2.60E-04	2.50E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369140.50	3755467.40	2.00E-05	2.60E-03	2.21E-03	1.91E-03	7.90E-04	3.60E-04	4.70E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369216.91	3758091.16	1.00E-05	1.39E-03	1.33E-03	1.08E-03	5.80E-04	2.80E-04	2.50E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369232.76	3755466.24	2.00E-05	2.49E-03	2.14E-03	1.89E-03	7.80E-04	3.60E-04	4.50E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369267.76	3758146.04	1.00E-05	1.32E-03	1.29E-03	1.08E-03	5.90E-04	2.80E-04	2.40E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369271.60	3758257.04	1.00E-05	1.08E-03	1.08E-03	8.90E-04	5.00E-04	2.40E-04	2.00E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369323.20	3758086.63	1.00E-05	1.41E-03	1.38E-03	1.16E-03	6.30E-04	3.00E-04	2.50E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369328.65	3758304.45	1.00E-05	1.01E-03	1.01E-03	8.40E-04	4.70E-04	2.30E-04	1.90E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369329.84	3755464.79	2.00E-05	2.40E-03	2.09E-03	1.86E-03	7.70E-04	3.50E-04	4.30E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369342.43	3757939.52	1.00E-05	1.72E-03	1.65E-03	1.39E-03	7.30E-04	3.50E-04	3.00E-04	1.10E-04	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369386.54	3758429.44	1.00E-05	8.80E-04	9.00E-04	7.20E-04	4.00E-04	1.90E-04	1.70E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369387.36	3758507.31	1.00E-05	8.30E-04	8.40E-04	6.60E-04	3.70E-04	1.80E-04	1.60E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369449.11	3758008.60	1.00E-05	1.50E-03	1.50E-03	1.27E-03	6.90E-04	3.20E-04	2.80E-04	1.00E-04	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369426.92	3755463.35	2.00E-05	2.35E-03	2.07E-03	1.84E-03	7.60E-04	3.50E-04	4.10E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369468.66	3758583.75	1.00E-05	8.00E-04	8.00E-04	6.00E-04	3.40E-04	1.60E-04	1.50E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369524.00	3755461.90	2.00E-05	2.33E-03	2.06E-03	1.82E-03	7.60E-04	3.40E-04	4.00E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369549.13	3758582.89	1.00E-05	8.40E-04	8.40E-04	6.10E-04	3.50E-04	1.70E-04	1.60E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369621.08	3755460.45	2.00E-05	2.31E-03	2.05E-03	1.80E-03	7.60E-04	3.40E-04	3.90E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369629.61	3758582.03	1.00E-05	8.70E-04	8.70E-04	6.10E-04	3.50E-04	1.70E-04	1.60E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369710.08	3758581.17	1.00E-05	8.90E-04	9.00E-04	6.20E-04	3.60E-04	1.80E-04	1.70E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369718.16	3755459.00	2.00E-05	2.26E-03	2.02E-03	1.77E-03	7.60E-04	3.50E-04	3.80E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369787.02	3758286.68	1.00E-05	1.10E-03	1.16E-03	8.80E-04	5.00E-04	2.40E-04	2.10E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369788.19	3758398.38	1.00E-05	1.02E-03	1.08E-03	8.00E-04	4.70E-04	2.20E-04	2.00E-04	8.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369789.37	3758489.35	1.00E-05	9.50E-04	1.00E-03	7.30E-04	4.30E-04	2.10E-04	1.80E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369815.24	3755457.56	2.00E-05	2.16E-03	1.96E-03	1.74E-03	7.60E-04	3.50E-04	3.80E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369882.84	3758285.07	1.00E-05	1.12E-03	1.20E-03	9.00E-04	5.30E-04	2.50E-04	2.20E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369912.32	3755456.11	2.00E-05	2.02E-03	1.87E-03	1.69E-03	7.70E-04	3.50E-04	3.60E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369978.66	3758283.45	1.00E-05	1.09E-03	1.17E-03	8.60E-04	5.10E-04	2.40E-04	2.20E-04	9.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370009.40	3755454.66	2.00E-05	1.89E-03	1.78E-03	1.63E-03	7.70E-04	3.60E-04	3.40E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370056.44	3758282.14	1.00E-05	1.04E-03	1.11E-03	7.90E-04	4.90E-04	2.40E-04	2.20E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370106.48	3755453.21	2.00E-05	1.79E-03	1.72E-03	1.59E-03	7.60E-04	3.50E-04	3.20E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370130.90	3758282.44	1.00E-05	1.04E-03	1.10E-03	7.60E-04	4.90E-04	2.40E-04	2.20E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370203.56	3755451.77	2.00E-05	1.74E-03	1.69E-03	1.56E-03	7.40E-04	3.40E-04	3.00E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370226.81	3758159.47	1.00E-05	1.28E-03	1.42E-03	9.80E-04	6.10E-04	2.80E-04	2.70E-04	1.10E-04	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370227.55	3758221.46	1.00E-05	1.22E-03	1.34E-03	9.10E-04	5.70E-04	2.70E-04	2.50E-04	1.00E-04	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370228.30	3758283.44	1.00E-05	1.16E-03	1.27E-03	8.50E-04	5.40E-04	2.50E-04	2.40E-04	1.00E-04	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370253.14	3758168.84	1.00E-05	1.28E-03	1.42E-03	9.70E-04	6.00E-04	2.80E-04	2.70E-04	1.10E-04	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370300.64	3755450.32	2.00E-05	1.71E-03	1.68E-03	1.54E-03	7.40E-04	3.40E-04	2.90E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370308.97	3758176.51	1.00E-05	1.31E-03	1.44E-03	9.50E-04	6.00E-04	2.80E-04	2.70E-04	1.10E-04	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370356.87	3758202.23	1.00E-05	1.31E-03	1.44E-03	9.20E-04	5.80E-04	2.70E-04	2.80E-04	1.10E-04	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370397.72	3755448.87	2.00E-05	1.69E-03	1.68E-03	1.51E-03	7.20E-04	3.30E-04	2.80E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370404.21	3758225.88	1.00E-05	1.32E-03	1.45E-03	9.00E-04	5.70E-04	2.70E-04	2.80E-04	1.20E-04	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370422.64	3758284.19	1.00E-05	1.27E-03	1.40E-03	8.50E-04	5.40E-04	2.60E-04	2.80E-04	1.10E-04	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370442.78	3758228.43	1.00E-05	1.35E-03	1.48E-03	9.00E-04	5.70E-04	2.70E-04	2.90E-04	1.20E-04	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370465.02	3755455.18	2.00E-05	1.69E-03	1.68E-03	1.50E-03	7.20E-04	3.30E-04	2.80E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370522.53	3758282.84	1.00E-05	1.36E-03	1.48E-03	8.50E-04	5.50E-04	2.60E-04	3.00E-04	1.30E-04	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370558.15	3755458.94	2.00E-05	1.63E-03	1.64E-03	1.47E-03	7.20E-04	3.40E-04	2.80E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370622.42	3758281.49	1.00E-05	1.46E-03	1.57E-03	8.50E-04	5.50E-04	2.70E-04	3.30E-04	1.40E-04	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370624.63	3755467.51	2.00E-05	1.60E-03	1.63E-03	1.46E-03	7.20E-04	3.40E-04	2.70E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370691.11	3755476.08	2.00E-05	1.57E-03	1.61E-03	1.44E-03	7.20E-04	3.40E-04	2.70E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370722.31	3758280.14	1.00E-05	1.57E-03	1.66E-03	8.50E-04	5.60E-04	2.70E-04	3.60E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370757.38	3755493.32	2.00E-05	1.54E-03	1.59E-03	1.43E-03	7.20E-04	3.40E-04	2.80E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370792.87	3757995.38	2.00E-05	2.39E-03	2.46E-03	1.21E-03	7.40E-04	3.60E-04	5.00E-04	2.10E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Architectural Coatings, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
370797.01	3758107.02	1.00E-05	2.08E-03	2.15E-03	1.05E-03	6.70E-04	3.20E-04	4.50E-04	1.90E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370798.36	3758194.12	1.00E-05	1.85E-03	1.92E-03	9.50E-04	6.10E-04	3.00E-04	4.20E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370798.51	3757946.46	2.00E-05	2.56E-03	2.62E-03	1.30E-03	7.80E-04	3.80E-04	5.30E-04	2.20E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370799.71	3758281.23	1.00E-05	1.64E-03	1.71E-03	8.50E-04	5.60E-04	2.80E-04	3.80E-04	1.60E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370807.53	3755529.02	2.00E-05	1.54E-03	1.61E-03	1.46E-03	7.40E-04	3.50E-04	2.80E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370818.52	3757901.47	2.00E-05	2.78E-03	2.84E-03	1.39E-03	8.30E-04	4.00E-04	5.80E-04	2.40E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370851.08	3758564.53	2.00E-05	3.04E-03	3.08E-03	1.47E-03	8.70E-04	4.20E-04	6.40E-04	2.60E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370854.34	3755560.20	2.00E-05	1.53E-03	1.62E-03	1.47E-03	7.60E-04	3.60E-04	2.80E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370901.14	3755591.38	2.00E-05	1.52E-03	1.63E-03	1.48E-03	7.60E-04	3.60E-04	2.80E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370908.58	3758358.61	2.00E-05	3.29E-03	3.30E-03	1.50E-03	8.90E-04	4.40E-04	6.90E-04	2.90E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370926.68	3755646.61	2.00E-05	1.56E-03	1.43E-03	1.55E-03	8.00E-04	3.80E-04	2.80E-04	9.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370932.48	3755705.67	2.00E-05	1.62E-03	1.78E-03	1.64E-03	8.40E-04	3.90E-04	2.90E-04	1.00E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370959.17	3757378.41	7.00E-05	8.95E-03	7.06E-03	4.28E-03	2.08E-03	9.90E-04	2.05E-03	4.50E-04	1.90E-04	1.90E-04	5.60E-04	0.00E+00	0.00E+00	0.00E+00
370959.96	3757296.13	9.00E-05	9.17E-03	8.09E-03	5.55E-03	2.62E-03	1.23E-03	1.09E-02	4.80E-04	2.50E-04	2.50E-04	7.60E-04	0.00E+00	0.00E+00	0.00E+00
370960.75	3757213.81	1.20E-04	1.01E-02	9.40E-03	7.38E-03	3.34E-03	1.51E-03	1.85E-03	5.20E-04	3.40E-04	3.40E-04	1.03E-03	0.00E+00	0.00E+00	0.00E+00
370961.54	3757131.59	1.60E-04	1.14E-02	1.12E-02	1.01E-02	4.26E-03	1.77E-03	1.75E-03	5.60E-04	2.10E-04	2.10E-04	6.40E-04	0.00E+00	0.00E+00	0.00E+00
370962.33	3757049.20	2.00E-04	1.40E-02	1.42E-02	1.47E-02	5.30E-03	1.90E-03	1.82E-03	5.90E-04	2.10E-04	2.10E-04	6.40E-04	0.00E+00	0.00E+00	0.00E+00
370963.12	3756966.90	2.40E-04	1.48E-02	2.12E-02	2.48E-02	6.28E-03	1.82E-03	1.87E-03	6.00E-04	1.80E-04	1.80E-04	5.50E-04	0.00E+00	0.00E+00	0.00E+00
370966.07	3757852.69	2.00E-05	3.59E-03	3.57E-03	1.53E-03	9.20E-04	4.50E-04	7.60E-04	3.20E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370968.09	3757808.70	2.00E-05	3.84E-03	3.82E-03	1.64E-03	9.70E-04	4.80E-04	8.20E-04	3.40E-04	1.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
370983.75	3755705.22	2.00E-05	1.58E-03	1.74E-03	1.60E-03	8.20E-04	3.90E-04	2.90E-04	9.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370986.42	3755628.02	2.00E-05	1.49E-03	1.62E-03	1.48E-03	7.70E-04	3.60E-04	2.70E-04	9.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370989.10	3755550.81	2.00E-05	1.41E-03	1.52E-03	1.37E-03	7.20E-04	3.40E-04	2.60E-04	9.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370991.77	3755473.61	2.00E-05	1.34E-03	1.43E-03	1.28E-03	6.70E-04	3.20E-04	2.50E-04	8.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371017.44	3757371.98	7.00E-05	9.25E-03	7.62E-03	4.39E-03	2.14E-03	1.01E-03	2.86E-03	5.00E-04	2.90E-04	2.90E-04	8.60E-04	0.00E+00	0.00E+00	0.00E+00
371039.92	3757778.95	2.00E-05	4.49E-03	4.42E-03	1.76E-03	1.03E-03	5.10E-04	9.70E-04	4.00E-04	1.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
371061.56	3756965.39	4.20E-04	1.28E-02	1.71E-02	2.37E-02	6.82E-03	1.53E-03	1.72E-03	5.70E-04	2.80E-04	2.80E-04	8.50E-04	0.00E+00	0.00E+00	0.00E+00
371064.57	3755405.04	2.00E-05	1.24E-03	1.32E-03	1.17E-03	6.20E-04	2.90E-04	2.30E-04	8.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371078.64	3757842.57	2.00E-05	4.31E-03	4.22E-03	1.60E-03	9.70E-04	4.80E-04	9.40E-04	4.00E-04	1.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
371116.65	3757378.24	7.00E-05	9.70E-03	9.10E-03	4.37E-03	2.13E-03	1.01E-03	2.47E-03	6.10E-04	1.90E-04	1.90E-04	5.60E-04	0.00E+00	0.00E+00	0.00E+00
371117.35	3757906.19	2.00E-05	4.06E-03	3.95E-03	1.47E-03	9.10E-04	4.60E-04	9.20E-04	3.90E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371160.25	3755403.96	2.00E-05	1.18E-03	1.27E-03	1.12E-03	5.90E-04	2.80E-04	2.20E-04	7.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371160.00	3756963.88	9.20E-04	1.24E-02	1.57E-02	2.93E-02	1.01E-02	1.34E-03	1.59E-03	5.40E-04	1.30E-04	1.30E-04	4.00E-04	0.00E+00	0.00E+00	0.00E+00
371173.76	3757954.26	2.00E-05	3.90E-03	3.78E-03	1.39E-03	8.80E-04	4.50E-04	9.40E-04	4.10E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371174.47	3757986.09	2.00E-05	3.61E-03	3.51E-03	1.33E-03	8.50E-04	4.40E-04	8.90E-04	3.80E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371208.04	3755708.28	1.00E-04	1.15E-02	1.02E-02	5.51E-03	2.53E-03	1.15E-03	2.22E-03	7.40E-04	1.30E-04	1.30E-04	3.80E-04	0.00E+00	0.00E+00	0.00E+00
371208.86	3757379.92	9.00E-05	1.17E-02	1.10E-02	4.38E-03	2.22E-03	1.01E-03	2.37E-03	7.50E-04	1.10E-04	1.10E-04	3.20E-04	0.00E+00	0.00E+00	0.00E+00
371210.97	3757210.00	1.50E-04	1.10E-02	9.84E-03	7.19E-03	3.05E-03	1.27E-03	1.95E-03	7.10E-04	1.40E-04	1.40E-04	4.20E-04	0.00E+00	0.00E+00	0.00E+00
371243.87	3757985.25	2.00E-05	3.83E-03	3.67E-03	1.36E-03	8.70E-04	4.50E-04	9.90E-04	4.30E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371255.94	3755402.89	2.00E-05	1.13E-03	1.23E-03	1.08E-03	5.70E-04	2.70E-04	2.10E-04	7.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371258.45	3756962.36	2.40E-03	1.67E-02	1.62E-02	3.71E-02	1.39E-02	1.23E-03	1.47E-03	5.20E-04	8.00E-05	8.00E-05	2.40E-04	0.00E+00	0.00E+00	0.00E+00
371275.69	3757208.66	1.50E-04	1.11E-02	1.01E-02	7.06E-03	2.97E-03	1.23E-03	2.05E-03	7.70E-04	1.00E-04	1.00E-04	3.10E-04	0.00E+00	0.00E+00	0.00E+00
371313.27	3757984.41	2.00E-05	4.03E-03	3.81E-03	1.39E-03	9.00E-04	4.70E-04	1.09E-03	4.70E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371348.54	3758024.62	2.00E-05	3.70E-03	3.48E-03	1.33E-03	8.70E-04	4.60E-04	1.00E-03	4.40E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Architectural Coatings, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
373374.73	3757597.71	5.00E-05	4.63E-03	1.99E-02	4.74E-02	8.70E-02	5.48E-02	1.30E-03	4.40E-04	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373374.83	3756432.37	1.40E-04	1.05E-03	1.33E-03	1.05E-03	9.20E-04	5.30E-04	1.90E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373375.60	3757685.31	4.00E-05	5.16E-03	1.72E-02	3.02E-02	5.17E-02	3.19E-02	1.34E-03	5.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373393.43	3757684.85	4.00E-05	5.06E-03	1.65E-02	2.77E-02	4.69E-02	2.84E-02	1.32E-03	5.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373394.30	3757744.19	4.00E-05	5.35E-03	1.44E-02	1.96E-02	3.22E-02	1.85E-02	1.35E-03	5.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367047.63	3761097.01	0.00E+00	2.80E-04	2.80E-04	2.00E-04	1.20E-04	6.00E-05	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370737.54	3762942.92	0.00E+00	1.10E-04	1.40E-04	9.00E-05	7.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371031.93	3758057.86	1.00E-05	2.76E-03	2.75E-03	1.16E-03	7.50E-04	3.80E-04	6.50E-04	2.80E-04	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371034.38	3758338.88	1.00E-05	1.62E-03	1.58E-03	7.40E-04	5.30E-04	2.80E-04	4.00E-04	1.70E-04	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371091.65	3754274.94	1.00E-05	6.60E-04	6.40E-04	5.00E-04	2.60E-04	1.20E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371165.78	3758547.83	1.00E-05	1.21E-03	1.23E-03	6.10E-04	4.80E-04	2.50E-04	2.60E-04	1.10E-04	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372241.00	3757383.00	1.10E-04	1.36E-02	1.71E-02	4.32E-03	3.15E-03	1.84E-03	2.40E-03	1.14E-03	1.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
372703.01	3761799.64	0.00E+00	1.80E-04	2.00E-04	1.10E-04	9.00E-05	5.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374194.97	3754806.86	0.00E+00	2.90E-04	3.70E-04	2.80E-04	2.10E-04	1.10E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374697.43	3760305.50	0.00E+00	4.60E-04	4.70E-04	2.50E-04	2.00E-04	1.10E-04	1.00E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375423.74	3758805.14	1.00E-05	1.62E-03	1.90E-03	1.01E-03	1.01E-03	5.40E-04	3.70E-04	1.50E-04	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375433.42	3757541.59	2.00E-05	1.19E-03	1.72E-03	1.31E-03	1.40E-03	8.10E-04	2.70E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378090.06	3758535.33	1.00E-05	7.50E-04	9.20E-04	5.90E-04	5.80E-04	3.20E-04	1.70E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368494.88	3756671.28	3.00E-05	5.94E-03	4.56E-03	3.34E-03	1.21E-03	5.60E-04	7.70E-04	2.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370394.80	3758645.73	1.80E-04	3.65E-02	3.95E-02	7.01E-02	3.53E-02	1.22E-02	7.26E-03	2.00E-03	1.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
368983.23	3754581.57	1.00E-05	1.03E-03	9.50E-04	8.30E-04	3.90E-04	1.80E-04	1.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369216.41	3758422.45	1.00E-05	9.00E-04	9.00E-04	7.40E-04	4.20E-04	2.00E-04	1.70E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369532.57	3755391.67	2.00E-05	2.09E-03	1.91E-03	1.60E-03	6.50E-04	3.20E-04	3.20E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369574.04	3758166.39	1.00E-05	1.14E-03	1.21E-03	9.60E-04	5.30E-04	2.50E-04	2.20E-04	8.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369581.37	3758516.07	1.00E-05	8.80E-04	8.80E-04	6.40E-04	3.60E-04	1.70E-04	1.60E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369830.08	3755394.84	2.00E-05	1.97E-03	1.82E-03	1.58E-03	7.20E-04	3.40E-04	3.50E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370114.12	3758186.53	1.00E-05	1.20E-03	1.32E-03	9.60E-04	5.90E-04	2.80E-04	2.40E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371021.69	3757820.60	2.00E-05	4.09E-03	4.03E-03	1.63E-03	9.70E-04	4.80E-04	8.80E-04	3.70E-04	1.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
366809.77	3757837.27	1.00E-05	1.17E-03	9.90E-04	7.90E-04	3.50E-04	1.70E-04	1.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366843.26	3757860.52	1.00E-05	1.16E-03	9.80E-04	7.90E-04	3.50E-04	1.70E-04	1.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3758500.00	1.00E-05	7.50E-04	6.80E-04	5.20E-04	2.60E-04	1.30E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3762500.00	0.00E+00	1.70E-04	1.80E-04	1.30E-04	1.00E-04	5.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3763500.00	0.00E+00	1.20E-04	1.40E-04	1.00E-04	8.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3764500.00	0.00E+00	1.00E-04	1.00E-04	7.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3765500.00	0.00E+00	1.00E-04	1.10E-04	8.00E-05	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368068.97	3758068.94	1.00E-05	1.30E-03	1.15E-03	8.70E-04	4.20E-04	2.10E-04	2.10E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368782.48	3758015.85	1.00E-05	1.39E-03	1.23E-03	9.70E-04	4.70E-04	2.30E-04	2.20E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368416.83	3757988.39	1.00E-05	1.47E-03	1.31E-03	1.01E-03	5.00E-04	2.40E-04	2.40E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368577.94	3757979.23	1.00E-05	1.61E-03	1.43E-03	1.12E-03	5.50E-04	2.60E-04	2.50E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368764.68	3758079.93	1.00E-05	1.48E-03	1.34E-03	1.03E-03	5.10E-04	2.50E-04	2.40E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3754500.00	1.00E-05	9.80E-04	9.00E-04	7.80E-04	3.70E-04	1.80E-04	1.70E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3759500.00	0.00E+00	4.70E-04	4.80E-04	3.20E-04	1.90E-04	1.00E-04	1.00E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3761500.00	0.00E+00	2.10E-04	2.30E-04	1.70E-04	1.30E-04	7.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3762500.00	0.00E+00	1.50E-04	1.70E-04	1.20E-04	9.00E-05	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3763500.00	0.00E+00	1.20E-04	1.30E-04	1.00E-04	7.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3764500.00	0.00E+00	9.00E-05	1.10E-04	8.00E-05	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368944.10	3758186.12	1.00E-05	1.35E-03	1.25E-03	9.80E-04	5.00E-04	2.40E-04	2.30E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369206.25	3758147.26	1.00E-05	1.29E-03	1.25E-03	1.02E-03	5.50E-04	2.70E-04	2.40E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369268.49	3758066.34	1.00E-05	1.41E-03	1.36E-03	1.12E-03	6.00E-04	2.90E-04	2.60E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369333.85	3757999.43	1.00E-05	1.53E-03	1.48E-03	1.23E-03	6.60E-04	3.10E-04	2.80E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369425.60	3758641.99	1.00E-05	7.60E-04	7.70E-04	5.80E-04	3.30E-04	1.60E-04	1.50E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369599.53	3758634.67	1.00E-05	8.30E-04	8.30E-04	5.80E-04	3.30E-04	1.60E-04	1.60E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369775.29	3758632.83	1.00E-05	8.80E-04	8.70E-04	5.80E-04	3.40E-04	1.70E-04	1.70E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369834.01	3758329.23	1.00E-05	1.08E-03	1.15E-03	8.60E-04	5.00E-04	2.40E-04	2.40E-04	8.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3754500.00	1.00E-05	8.30E-04	8.00E-04	7.20E-04	3.70E-04	1.80E-04	1.40E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3758500.00	1.00E-05	9.50E-04	1.01E-03	7.10E-04	4.40E-04	2.10E-04	1.90E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3759500.00	0.00E+00	5.00E-04	5.30E-04	3.30E-04	2.50E-04	1.30E-04	1.20E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_ROG_Annual.xlsx

Annual ROG Summary by Source

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Architectural Coatings, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
369900.00	3761500.00	0.00E+00	1.80E-04	2.20E-04	1.60E-04	1.20E-04	6.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3762500.00	0.00E+00	1.30E-04	1.60E-04	1.20E-04	9.00E-05	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3764500.00	0.00E+00	8.00E-05	1.00E-04	7.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370006.10	3758331.16	1.00E-05	1.01E-03	1.05E-03	7.40E-04	4.60E-04	2.20E-04	2.10E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370183.69	3758338.49	1.00E-05	1.03E-03	1.11E-03	7.30E-04	4.70E-04	2.30E-04	2.20E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370425.35	3758336.66	1.00E-05	1.22E-03	1.34E-03	8.00E-04	5.20E-04	2.50E-04	2.70E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370701.79	3758334.82	1.00E-05	1.44E-03	1.53E-03	8.00E-04	5.30E-04	2.60E-04	3.40E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370780.52	3758327.50	1.00E-05	1.53E-03	1.60E-03	8.10E-04	5.40E-04	2.70E-04	3.60E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370900.00	3759500.00	0.00E+00	4.00E-04	4.60E-04	3.00E-04	2.70E-04	1.40E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370900.00	3760500.00	0.00E+00	2.30E-04	2.70E-04	1.70E-04	1.40E-04	8.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370900.00	3762500.00	0.00E+00	1.20E-04	1.50E-04	1.00E-04	8.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370900.00	3763500.00	0.00E+00	1.00E-04	1.20E-04	8.00E-05	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370900.00	3764500.00	0.00E+00	8.00E-05	1.00E-04	7.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371295.29	3758036.94	2.00E-05	3.46E-03	3.30E-03	1.28E-03	8.50E-04	4.40E-04	9.30E-04	4.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371421.46	3758118.19	2.00E-05	3.14E-03	2.94E-03	1.20E-03	8.20E-04	4.30E-04	7.60E-04	3.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371550.51	3758209.00	2.00E-05	2.87E-03	2.72E-03	1.12E-03	8.00E-04	4.20E-04	5.90E-04	2.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371685.28	3758299.81	1.00E-05	2.51E-03	2.50E-03	1.06E-03	7.90E-04	4.20E-04	5.20E-04	2.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371754.11	3758291.20	1.00E-05	2.64E-03	2.62E-03	1.11E-03	8.40E-04	4.40E-04	5.60E-04	2.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371807.64	3758213.78	2.00E-05	3.27E-03	3.14E-03	1.23E-03	9.20E-04	4.90E-04	7.20E-04	3.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371874.55	3758164.07	2.00E-05	3.85E-03	3.63E-03	1.35E-03	1.00E-03	5.40E-04	8.70E-04	3.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371900.00	3758500.00	1.00E-05	1.84E-03	1.90E-03	9.20E-04	7.40E-04	3.80E-04	4.10E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371900.00	3759500.00	1.00E-05	5.90E-04	6.50E-04	3.70E-04	2.90E-04	1.50E-04	1.20E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371900.00	3760500.00	0.00E+00	1.30E-04	1.40E-04	8.00E-05	7.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371900.00	3762500.00	0.00E+00	1.30E-04	1.30E-04	8.00E-05	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371933.81	3758104.81	2.00E-05	4.78E-03	4.40E-03	1.49E-03	1.11E-03	5.90E-04	1.09E-03	4.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372241.00	3757883.00	3.00E-05	2.16E-02	1.44E-02	2.87E-03	1.85E-03	1.04E-03	4.36E-03	2.01E-03	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372241.00	3757983.00	3.00E-05	1.05E-02	8.55E-03	2.15E-03	1.60E-03	8.70E-04	2.48E-03	1.12E-03	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372341.00	3757883.00	3.00E-05	2.28E-02	1.46E-02	3.05E-03	2.04E-03	1.12E-03	4.27E-03	1.95E-03	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372341.00	3757983.00	3.00E-05	1.17E-02	8.99E-03	2.28E-03	1.75E-03	9.30E-04	2.65E-03	1.20E-03	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3753500.00	0.00E+00	3.00E-04	3.40E-04	2.70E-04	1.60E-04	8.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372900.00	3754500.00	1.00E-05	4.30E-04	5.00E-04	3.90E-04	2.40E-04	1.30E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372900.00	3759500.00	1.00E-05	6.90E-04	7.60E-04	3.90E-04	3.10E-04	1.60E-04	1.40E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372900.00	3760500.00	0.00E+00	3.60E-04	4.10E-04	2.20E-04	1.80E-04	9.00E-05	7.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372900.00	3761500.00	0.00E+00	2.10E-04	2.30E-04	1.30E-04	1.10E-04	6.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372900.00	3762500.00	0.00E+00	1.10E-04	1.20E-04	7.00E-05	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757783.00	4.00E-05	4.70E-03	5.96E-03	1.11E-02	1.65E-02	9.32E-03	1.18E-03	4.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757883.00	3.00E-05	1.93E-03	6.68E-03	6.53E-03	8.86E-03	4.67E-03	1.19E-03	4.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757983.00	3.00E-05	4.96E-03	7.06E-03	4.05E-03	4.94E-03	2.54E-03	1.17E-03	4.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3756983.00	4.00E-05	1.43E-03	2.13E-03	1.96E-03	1.97E-03	1.32E-03	2.90E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757083.00	4.00E-05	1.63E-03	2.66E-03	2.52E-03	2.77E-03	2.02E-03	3.70E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757183.00	4.00E-05	1.87E-03	3.61E-03	3.94E-03	5.00E-03	3.80E-03	4.80E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757283.00	4.00E-05	2.18E-03	5.17E-03	7.01E-03	9.90E-03	7.56E-03	6.20E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757383.00	4.00E-05	2.56E-03	7.27E-03	1.03E-02	1.34E-02	9.13E-03	7.60E-04	2.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757483.00	4.00E-05	3.00E-03	9.47E-03	1.24E-02	1.48E-02	8.44E-03	8.80E-04	2.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757583.00	4.00E-05	3.47E-03	1.06E-02	1.35E-02	1.77E-02	9.77E-03	9.70E-04	3.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757683.00	4.00E-05	3.91E-03	1.05E-02	1.26E-02	1.81E-02	1.03E-02	1.04E-03	3.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757783.00	4.00E-05	4.28E-03	9.55E-03	9.69E-03	1.40E-02	7.85E-03	1.08E-03	4.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757883.00	3.00E-05	4.51E-03	8.17E-03	6.49E-03	8.89E-03	4.78E-03	1.10E-03	4.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757983.00	3.00E-05	4.57E-03	6.85E-03	4.27E-03	5.36E-03	2.80E-03	1.09E-03	4.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373687.89	3757980.08	3.00E-05	4.93E-03	6.76E-03	4.53E-03	5.57E-03	2.93E-03	1.06E-03	4.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3753500.00	0.00E+00	2.50E-04	2.90E-04	2.10E-04	1.40E-04	7.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3754500.00	0.00E+00	3.

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Architectural Coatings, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
373541.00	3756983.00	4.00E-05	1.51E-03	2.36E-03	2.23E-03	2.32E-03	1.56E-03	3.10E-04	1.00E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373541.00	3757083.00	4.00E-05	1.71E-03	2.95E-03	2.89E-03	3.24E-03	2.57E-03	3.90E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373541.00	3757183.00	4.00E-05	1.98E-03	4.25E-03	4.86E-03	6.33E-03	5.33E-03	5.30E-04	1.50E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373541.00	3757283.00	4.00E-05	2.32E-03	6.24E-03	1.01E-02	1.55E-02	1.39E-02	7.00E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373541.00	3757383.00	4.00E-05	2.74E-03	8.95E-03	1.43E-02	1.87E-02	1.38E-02	8.60E-04	2.30E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373541.00	3757483.00	4.00E-05	3.29E-03	1.26E-02	1.78E-02	2.00E-02	1.08E-02	1.00E-03	3.00E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373541.00	3757583.00	4.00E-05	3.82E-03	1.34E-02	1.92E-02	2.62E-02	1.48E-02	1.08E-03	3.60E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373541.00	3757683.00	4.00E-05	4.30E-03	1.23E-02	1.61E-02	2.46E-02	1.44E-02	1.13E-03	4.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
366455.27	3763213.67	0.00E+00	1.40E-04	1.50E-04	1.10E-04	8.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366669.62	3763342.53	0.00E+00	1.30E-04	1.50E-04	1.10E-04	8.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366671.31	3762769.21	0.00E+00	1.60E-04	1.70E-04	1.20E-04	9.00E-05	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367494.53	3758314.82	1.00E-05	9.50E-04	8.50E-04	6.60E-04	3.30E-04	1.60E-04	1.60E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367575.16	3764900.80	0.00E+00	9.00E-05	1.00E-04	7.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367638.49	3757975.16	1.00E-05	1.26E-03	1.09E-03	8.80E-04	4.10E-04	2.00E-04	2.00E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367728.62	3761967.19	0.00E+00	1.80E-04	2.10E-04	1.50E-04	1.10E-04	6.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367787.59	3758292.62	1.00E-05	1.03E-03	9.20E-04	6.90E-04	3.40E-04	1.70E-04	1.70E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367831.34	3763245.91	0.00E+00	1.30E-04	1.40E-04	1.00E-04	8.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367900.00	3758500.00	1.00E-05	8.50E-04	7.80E-04	6.10E-04	3.20E-04	1.60E-04	1.40E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367926.08	3763311.16	0.00E+00	1.20E-04	1.40E-04	1.00E-04	8.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367964.98	3758232.97	1.00E-05	1.11E-03	9.90E-04	7.50E-04	3.80E-04	1.80E-04	1.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367976.37	3763336.74	0.00E+00	1.20E-04	1.40E-04	1.00E-04	7.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367978.91	3758390.10	1.00E-05	9.50E-04	8.70E-04	6.70E-04	3.50E-04	1.70E-04	1.60E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368188.78	3758591.24	1.00E-05	8.60E-04	7.90E-04	6.20E-04	3.20E-04	1.60E-04	1.40E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368501.11	3761632.38	0.00E+00	1.20E-04	2.20E-04	1.60E-04	1.20E-04	6.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368505.49	3758571.22	1.00E-05	9.10E-04	8.30E-04	6.30E-04	3.30E-04	1.60E-04	1.50E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368673.29	3761677.69	0.00E+00	1.90E-04	2.20E-04	1.60E-04	1.20E-04	6.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368693.42	3758359.47	1.00E-05	1.14E-03	1.04E-03	8.00E-04	4.10E-04	2.00E-04	1.90E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368842.92	3761590.39	0.00E+00	2.00E-04	2.30E-04	1.60E-04	1.20E-04	6.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368869.11	3754097.89	1.00E-05	7.20E-04	6.80E-04	5.80E-04	2.90E-04	1.40E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368869.83	3765067.00	0.00E+00	8.00E-05	1.00E-04	7.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368969.99	3761647.20	0.00E+00	2.00E-04	2.20E-04	1.60E-04	1.20E-04	6.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368970.54	3754677.64	1.00E-05	1.12E-03	1.02E-03	9.00E-04	4.10E-04	2.00E-04	1.90E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369007.11	3762513.11	0.00E+00	1.50E-04	1.70E-04	1.20E-04	9.00E-05	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369227.99	3762251.91	0.00E+00	1.60E-04	1.80E-04	1.30E-04	1.00E-04	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369242.37	3754695.62	1.00E-05	1.12E-03	1.03E-03	8.80E-04	4.10E-04	2.00E-04	1.90E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369456.98	3762567.48	0.00E+00	1.40E-04	1.70E-04	1.20E-04	9.00E-05	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369504.00	3754702.08	1.00E-05	1.13E-03	1.04E-03	8.80E-04	4.30E-04	2.00E-04	1.90E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369767.91	3761150.98	0.00E+00	2.20E-04	2.60E-04	1.90E-04	1.40E-04	7.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369809.34	3764567.65	0.00E+00	8.00E-05	1.00E-04	7.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369845.18	3754154.97	1.00E-05	6.30E-04	6.20E-04	5.60E-04	2.80E-04	1.40E-04	1.10E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369848.41	3753976.49	1.00E-05	5.90E-04	5.90E-04	5.20E-04	2.70E-04	1.30E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370097.88	3760014.31	0.00E+00	3.20E-04	3.70E-04	2.60E-04	2.20E-04	1.10E-04	7.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370150.95	3754699.75	1.00E-05	8.80E-04	8.80E-04	8.00E-04	4.10E-04	2.00E-04	1.50E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370192.96	3758860.70	1.00E-05	7.40E-04	7.80E-04	4.60E-04	3.20E-04	1.70E-04	1.80E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370243.17	3759622.98	0.00E+00	3.80E-04	4.50E-04	3.00E-04	2.40E-04	1.30E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370246.20	3754243.12	1.00E-05	6.40E-04	6.50E-04	5.70E-04	2.90E-04	1.40E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370290.74	3759464.60	0.00E+00	4.30E-04	5.00E-04	3.20E-04	2.60E-04	1.40E-04	1.00E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370608.78	3762239.97	0.00E+00	1.30E-04	1.60E-04	1.20E-04	9.00E-05	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370614.80	3762181.53	0.00E+00	1.30E-04	1.70E-04	1.20E-04	9.00E-05	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370625.96	3761759.08	0.00E+00	9.00E-05	1.10E-04	8.00E-05	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370723.56	3763867.78	0.00E+00	9.00E-05	1.10E-04	8.00E-05	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370968.58	3759443.63	0.00E+00	4.20E-04	4.80E-04	3.10E-04	2.80E-04	1.40E-04	9.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371139.14	3758179.30	1.00E-05	2.26E-03	2.21E-03	1.00E-03	6.70E-04	3.50E-04	5.90E-04	2.50E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371516.05	3762577.75	0.00E+00	1.30E-04	1.50E-04	1.00E-04	8.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371721.40	3759371.61	1.00E-05	6.20E-04	6.90E-04	4.00E-04	3.10E-04	1.60E-04	1.30E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371973.81	3758892.65	1.00E-05	1.10E-03	1.16E-03	6.20E-04	4.90E-04	2.60E-04	2.40E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372687.72	3759513.01	1.00E-05	6.70E-04	7.30E-04	3.80E-04	2.90E-04	1.60E-04	1.40E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372943.49	3761051.66	0.00E+00	2.60E-04	2.90E-04	1.60E-04	1.30E-04	7.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373546.52	3760907.48	0.00E+00	2.90E-04	3.20E-04	1.80E-04	1.50E-04	8.00E-05	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373736.60	3765603.93	7.00E-05	8.80E-04	1.13E-03	9.50E-04	8.10E-04	4.70E-04	1.60E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373758.20	3758043.23	3.00E-05	4.16E-03	5.95E-03	3.57E-03	4.38E-03	2.30E-03	9.90E-04	4.10E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373781.58	3753802.14	3.00E-05	5.00E-04	6.60E-04	5.60E-04	4.10E-04	2.20E-04	1.00E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373814.20	3756040.57	5.00E-05	6.10E-04	7.60E-04	6.30E-04	4.90E-04	2.70E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373990.06	3753826.14	0.00E+00	2.60E-04	3.10E-04	2.30E-04	1.50E-04	8.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_ROG_Annual.xlsx — Annual ROG Summary by Source

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Architectural Coatings, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
374057.73	3758196.53	2.00E-05	3.31E-03	4.35E-03	2.47E-03	2.86E-03	1.51E-03	7.80E-04	3.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374270.95	3758673.42	1.00E-05	2.20E-03	2.35E-03	1.08E-03	1.03E-03	5.40E-04	5.00E-04	2.10E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374561.05	3757642.94	3.00E-05	1.97E-03	3.48E-03	3.02E-03	3.62E-03	2.08E-03	4.90E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374688.84	3758984.90	1.00E-05	1.58E-03	1.65E-03	7.80E-04	7.10E-04	3.80E-04	3.60E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374693.96	3758983.17	1.00E-05	1.58E-03	1.65E-03	7.80E-04	7.20E-04	3.80E-04	3.60E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374717.46	3762574.39	0.00E+00	9.00E-05	1.00E-04	6.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375503.80	3764537.77	0.00E+00	9.00E-05	1.10E-04	6.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375614.97	3760555.10	0.00E+00	3.90E-04	4.30E-04	2.20E-04	1.90E-04	1.00E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375718.04	3758204.95	2.00E-05	1.54E-03	2.14E-03	1.45E-03	1.60E-03	8.90E-04	3.60E-04	1.40E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375902.79	3764940.52	0.00E+00	9.00E-05	1.00E-04	6.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375908.38	3763938.71	0.00E+00	9.00E-05	1.20E-04	7.00E-05	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375920.60	3762083.39	0.00E+00	1.70E-04	1.70E-04	9.00E-05	7.00E-05	4.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376709.15	3756388.48	1.00E-05	3.30E-04	3.70E-04	2.70E-04	1.90E-04	1.00E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376814.39	3754856.21	0.00E+00	1.60E-04	1.90E-04	1.40E-04	1.00E-04	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377050.15	3761774.29	0.00E+00	2.40E-04	2.70E-04	1.50E-04	1.30E-04	7.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377052.34	3761911.90	0.00E+00	2.30E-04	2.50E-04	1.40E-04	1.20E-04	6.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377227.14	3756422.42	1.00E-05	3.00E-04	3.30E-04	2.40E-04	1.60E-04	9.00E-05	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377237.88	3763993.21	0.00E+00	1.20E-04	1.30E-04	7.00E-05	6.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377313.01	3756205.13	1.00E-05	2.60E-04	2.90E-04	2.20E-04	1.40E-04	8.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377330.56	3760754.60	0.00E+00	4.60E-04	4.80E-04	2.50E-04	2.10E-04	1.10E-04	1.00E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377342.37	3764027.27	0.00E+00	1.20E-04	1.30E-04	7.00E-05	6.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377388.19	3762578.39	0.00E+00	1.80E-04	2.00E-04	1.10E-04	1.00E-04	5.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377563.47	3760340.44	1.00E-05	5.80E-04	6.30E-04	3.30E-04	2.90E-04	1.60E-04	1.30E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377753.42	3759272.76	1.00E-05	8.10E-04	1.00E-03	5.90E-04	5.60E-04	3.10E-04	1.90E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377839.66	3764649.02	0.00E+00	1.10E-04	1.10E-04	6.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377841.65	3762246.94	0.00E+00	2.20E-04	2.40E-04	1.30E-04	1.20E-04	6.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377908.39	3762502.03	0.00E+00	2.00E-04	2.20E-04	1.20E-04	1.10E-04	6.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377916.00	3755241.12	0.00E+00	1.50E-04	1.70E-04	1.20E-04	8.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377924.86	3763642.88	0.00E+00	1.30E-04	1.50E-04	8.00E-05	7.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377967.05	3762224.48	0.00E+00	2.20E-04	2.40E-04	1.40E-04	1.20E-04	6.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378003.52	3753139.05	0.00E+00	1.00E-04	1.10E-04	8.00E-05	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378022.11	3755897.25	0.00E+00	1.80E-04	1.90E-04	1.40E-04	9.00E-05	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378066.59	3761432.90	0.00E+00	3.40E-04	3.50E-04	1.90E-04	1.60E-04	9.00E-05	7.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378209.66	3764122.39	0.00E+00	1.20E-04	1.30E-04	7.00E-05	6.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378212.33	3753511.52	0.00E+00	1.00E-04	1.20E-04	8.00E-05	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378223.51	3760237.39	1.00E-05	6.10E-04	6.70E-04	3.60E-04	3.30E-04	1.80E-04	1.30E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378326.90	3764105.95	0.00E+00	2.20E-04	1.30E-04	7.00E-05	6.00E-05	3.00E-05	3.90E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378366.51	3755075.26	0.00E+00	1.20E-04	1.30E-04	1.00E-04	7.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378370.05	3759869.86	1.00E-05	7.00E-04	7.90E-04	4.50E-04	4.20E-04	2.20E-04	1.60E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378781.96	3760336.17	1.00E-05	5.70E-04	6.40E-04	3.50E-04	3.20E-04	1.80E-04	1.30E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378862.39	3757229.87	1.00E-05	3.40E-04	3.90E-04	2.80E-04	2.20E-04	1.20E-04	7.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378690.00	3759500.00	0.00E+00	4.40E-04	4.10E-04	3.20E-04	1.70E-04	9.00E-05	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378790.00	3759500.00	0.00E+00	5.00E-04	4.80E-04	3.60E-04	2.00E-04	1.00E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378690.00	3760500.00	0.00E+00	3.30E-04	3.20E-04	2.30E-04	1.30E-04	7.00E-05	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378690.00	3761500.00	0.00E+00	2.40E-04	2.50E-04	1.70E-04	1.10E-04	6.00E-05

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Architectural Coatings, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
373900.00	3762500.00	0.00E+00	1.10E-04	1.20E-04	7.00E-05	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3763500.00	0.00E+00	8.00E-05	9.00E-05	5.00E-05	5.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3753500.00	0.00E+00	1.90E-04	2.30E-04	1.80E-04	1.20E-04	6.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3758500.00	2.00E-05	2.12E-03	2.65E-03	1.46E-03	1.57E-03	8.40E-04	4.90E-04	2.00E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375900.00	3754500.00	0.00E+00	1.70E-04	2.10E-04	1.60E-04	1.10E-04	6.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3757500.00	2.00E-05	9.60E-04	1.31E-03	9.70E-04	9.80E-04	5.60E-04	2.10E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3758500.00	1.00E-05	1.49E-03	1.95E-03	1.22E-03	1.29E-03	7.10E-04	3.40E-04	1.40E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375900.00	3759500.00	1.00E-05	9.70E-04	1.03E-03	5.10E-04	4.60E-04	2.40E-04	2.20E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3753500.00	0.00E+00	1.20E-04	1.40E-04	1.00E-04	7.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3754500.00	0.00E+00	1.40E-04	1.70E-04	1.30E-04	9.00E-05	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3757500.00	1.00E-05	6.90E-04	8.80E-04	6.30E-04	5.80E-04	3.30E-04	1.50E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3763500.00	0.00E+00	1.40E-04	1.40E-04	8.00E-05	6.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377900.00	3758500.00	1.00E-05	7.70E-04	9.60E-04	6.20E-04	6.10E-04	3.40E-04	1.80E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378900.00	3754500.00	0.00E+00	1.00E-04	1.10E-04	8.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378900.00	3761500.00	0.00E+00	3.40E-04	3.70E-04	1.90E-04	1.70E-04	9.00E-05	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379900.00	3753500.00	0.00E+00	8.00E-05	9.00E-05	6.00E-05	4.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379900.00	3758500.00	1.00E-05	5.10E-04	6.10E-04	4.00E-04	3.80E-04	2.10E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
380900.00	3764500.00	0.00E+00	1.20E-04	1.30E-04	7.00E-05	6.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3753500.00	0.00E+00	6.00E-05	6.00E-05	4.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3758500.00	1.00E-05	3.50E-04	4.10E-04	2.70E-04	2.40E-04	1.40E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3758500.00	0.00E+00	2.60E-04	3.00E-04	1.90E-04	1.70E-04	1.00E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3759500.00	0.00E+00	3.20E-04	3.70E-04	2.30E-04	2.10E-04	1.20E-04	7.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3760500.00	0.00E+00	3.40E-04	3.80E-04	2.30E-04	2.20E-04	1.20E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3761500.00	0.00E+00	3.20E-04	3.60E-04	2.10E-04	1.90E-04	1.00E-04	7.00E-05	3.20E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368085.00	3755395.00	1.00E-05	2.30E-03	1.85E-03	1.42E-03	5.70E-04	2.70E-04	3.40E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368185.00	3755395.00	2.00E-05	2.50E-03	2.03E-03	1.57E-03	6.40E-04	3.00E-04	3.70E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368285.00	3755395.00	2.00E-05	2.50E-03	2.01E-03	1.55E-03	6.20E-04	2.90E-04	3.80E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368385.00	3755395.00	2.00E-05	2.57E-03	2.07E-03	1.61E-03	6.40E-04	3.00E-04	4.00E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368485.00	3755395.00	2.00E-05	2.62E-03	2.11E-03	1.66E-03	6.60E-04	3.10E-04	4.10E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368585.00	3755395.00	2.00E-05	2.66E-03	2.16E-03	1.71E-03	6.90E-04	3.20E-04	4.30E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368685.00	3755395.00	2.00E-05	2.69E-03	2.19E-03	1.76E-03	7.10E-04	3.30E-04	4.40E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368785.00	3755395.00	2.00E-05	2.66E-03	2.19E-03	1.79E-03	7.20E-04	3.40E-04	4.50E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368885.00	3755395.00	2.00E-05	2.60E-03	2.16E-03	1.79E-03	7.30E-04	3.40E-04	4.50E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368985.00	3755395.00	2.00E-05	2.50E-03	2.10E-03	1.79E-03	7.40E-04	3.40E-04	4.40E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369085.00	3755395.00	2.00E-05	2.40E-03	2.04E-03	1.77E-03	7.40E-04	3.40E-04	4.30E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369185.00	3755395.00	2.00E-05	2.30E-03	1.99E-03	1.75E-03	7.30E-04	3.40E-04	4.10E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369285.00	3755395.00	2.00E-05	2.22E-03	1.94E-03	1.72E-03	7.20E-04	3.30E-04	4.00E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369385.00	3755395.00	2.00E-05	2.08E-03	1.90E-03	1.67E-03	6.90E-04	3.10E-04	3.50E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369485.00	3755395.00	2.00E-05	2.07E-03	1.90E-03	1.61E-03	6.50E-04	2.90E-04	3.20E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369585.00	3755395.00	2.00E-05	2.13E-03	1.94E-03	1.61E-03	6.60E-04	3.00E-04	3.30E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369685.00	3755395.00	2.00E-05	2.14E-03	1.95E-03	1.64E-03	6.90E-04	3.20E-04	3.50E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369785.00	3755395.00	2.00E-05	2.04E-03	1.87E-03	1.61E-03	7.10E-04	3.30E-04	3.60E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369885.00	3755395.00	2.00E-05	1.88E-03	1.75E-03	1.56E-03	7.20E-04	3.40E-04	3.50E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369985.00	3755395.00	2.00E-05	1.79E-03	1.68E-03	1.54E-03	7.30E-04	3.40E-04	3.20E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370085.00	3755395.00	2.00E-05	1.68E-03	1.62E-03	1.49E-03	7.20E-04	3.30E-04	3.00E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370185.00	3755395.00	1.00E-05	1.63E-03	1.59E-03	1.47E-03	7.10E-04	3.30E-04	2.80E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370285.00	3755395.00	1.00E-05	1.60E-03	1.57E-03	1.44E-03	7.10E-04	3.30E-04	2.70E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370377.81	3755313.33	1.00E-05	1.45E-03	1.44E-03	1.31E-03	6.40E-04	3.00E-04	2.40E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370477.81	3755313.33	1.00E-05	1.45E-03	1.45E-03	1.30E-03	6.40E-04	3.00E-04	2.40E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370577.81	3755313.33	1.00E-05	1.41E-03	1.42E-03	1.29E-03	6.30E-04	2.90E-04	2.40E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370677.81	3755313.33	1.00E-05	1.37E-03	1.36E-03	1.17E-03	5.80E-04	2.80E-04	2.30E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370777.81	3755313.33	2.00E-05	1.33E-03	1.31E-03	1.12E-03	5.70E-04	2.80E-04	2.30E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370877.81	3755313.33	2.00E-05	1.28E-03	1.28E-03	1.09E-03	5.70E-04	2.80E-04	2.30E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370977.81	3755313.33	1.00E-05	1.22E-03	1.28E-03	1.11E-03	5.80E-04	2.80E-04	2.20E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371077.81	3755313.33	1.00E-05	1.16E-03	1.23E-03	1.07E-03	5.70E-04	2.70E-04	2.20E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371177.81	3755313.33	1.00E-05	1.11E-03	1.18E-03	1.04E-03	5.50E-04	2.60E-04	2.10E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371277.81	3755313.33	1.00E-05	1.06E-03	1.14E-03	1.00E-03	5.30E-04	2.50E-04	2.00E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371377.81	3755313.33	1.00E-05	1.02E-03	1.10E-03	9.60E-04	5.00E-04	2.40E-04	1.90E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371477.81	3755313.33	1.00E-05	9.80E-04	1.07E-03	9.10E-04	4.80E-04	2.30E-04	1.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371577.81	3755313.33	1.00E-05	9.50E-04	1.04E-03	8.70E-04	4.60E-04	2.20E-04	1.70E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371677.81	3755313.33	1.00E-05	9.20E-04	1.01E-03	8.30E-04	4.40E-04	2.20E-04	1.60E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371777.81	3755313.33	2.00E-05	8.80E-04	9.80E-04	8.00E-04	4.30E-04	2.10E-04	1.60E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371871.82	3755232.57	1.00E-05	8.10E-04	9.10E-04	7.30E-04	4.00E-04	2.00E-04	1.50E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371971.82	3755232.57	1.00E-05	7.80E-04	8.90E-04	7.10E-04	4.00E-04	2.00E-04	1.40E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_ROG_Annual.xlsx

Annual ROG Summary by Source

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Architectural Coatings, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
372071.82	3755232.57	1.00E-05	7.60E-04	8.60E-04	6.80E-04	3.90E-04	2.00E-04	1.40E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372171.82	3755232.57	1.00E-05	7.30E-04	8.40E-04	6.70E-04	3.90E-04	2.00E-04	1.30E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372271.82	3755232.57	1.00E-05	7.00E-04	8.20E-04	6.50E-04	3.90E-04	2.00E-04	1.30E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372371.82	3755232.57	1.00E-05	6.70E-04	7.90E-04	6.40E-04	3.90E-04	2.00E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372471.82	3755232.57	1.00E-05	6.50E-04	7.70E-04	6.30E-04	3.90E-04	2.00E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372571.82	3755232.57	1.00E-05	6.20E-04	7.50E-04	6.30E-04	3.80E-04	2.00E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372671.82	3755232.57	1.00E-05	6.00E-04	7.30E-04	6.30E-04	3.80E-04	2.00E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372771.82	3755232.57	1.00E-05	5.70E-04	7.00E-04	6.50E-04	3.70E-04	1.90E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372871.82	3755232.57	1.00E-05	5.50E-04	6.80E-04	6.60E-04	3.50E-04	1.90E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372971.82	3755232.57	1.00E-05	5.20E-04	6.50E-04	6.30E-04	3.40E-04	1.80E-04	1.00E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_ROG_Annual.xlsx

Annual ROG Summary by Source

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Diesel Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
369131.40	3758945.42	2.50E-04	5.53E-03	2.10E-03	1.75E-03	4.90E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370190.78	3758848.26	1.50E-04	5.23E-03	2.71E-03	1.75E-03	5.50E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370747.03	3763937.58	2.00E-05	7.40E-04	3.10E-04	2.00E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370757.72	3755124.52	6.70E-04	8.70E-03	3.45E-03	3.57E-03	9.30E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370946.70	3758260.69	3.60E-04	1.02E-02	6.22E-03	3.82E-03	8.20E-04	2.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371368.79	3754218.82	3.30E-04	4.07E-03	2.07E-03	1.94E-03	4.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371786.04	3754168.42	2.50E-04	3.34E-03	1.67E-03	1.55E-03	5.00E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373756.25	3761779.11	5.00E-05	1.64E-03	6.40E-04	4.20E-04	1.50E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373734.03	3758536.57	4.40E-04	4.58E-03	2.72E-03	2.61E-03	6.90E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368069.11	3760165.13	1.30E-04	2.80E-03	1.25E-03	1.00E-03	3.10E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369125.38	3763066.25	5.00E-05	1.00E-03	5.10E-04	3.70E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369225.45	3764227.42	4.00E-05	1.64E-03	3.50E-04	2.70E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370236.75	3761140.30	5.00E-05	1.54E-03	7.30E-04	5.00E-04	2.00E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372218.41	3759157.53	2.00E-04	6.42E-03	3.48E-03	2.14E-03	6.00E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372267.44	3762986.25	1.00E-05	8.20E-04	3.30E-04	2.00E-04	8.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374498.14	3758643.27	3.80E-04	1.68E-02	1.06E-02	5.88E-03	2.10E-03	7.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375472.61	3759680.03	1.70E-04	6.20E-03	3.42E-03	2.03E-03	6.90E-04	2.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375514.38	3757500.61	3.40E-04	1.36E-02	4.13E-03	2.79E-03	1.95E-03	7.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377395.41	3759189.37	2.20E-04	8.13E-03	4.03E-03	2.44E-03	1.14E-03	4.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366363.62	3757753.10	7.50E-04	5.54E-03	3.64E-03	3.87E-03	8.50E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369385.71	3758351.85	4.10E-04	8.04E-03	3.29E-03	2.92E-03	8.90E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369388.19	3758584.61	3.10E-04	7.14E-03	2.58E-03	2.21E-03	6.50E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371727.30	3758286.14	4.10E-04	1.61E-02	1.07E-02	6.07E-03	1.51E-03	4.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371973.18	3757657.97	1.36E-03	4.47E-01	5.61E-01	2.72E-01	4.01E-03	1.13E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372028.99	3757658.28	1.64E+00	2.16E+00	1.05E+00	1.22E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372057.72	3757303.44	1.85E-03	1.46E-01	3.68E-02	2.24E-02	5.08E-03	1.12E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372058.94	3757365.68	1.81E-03	1.27E-01	5.03E-02	2.72E-02	4.98E-03	1.13E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372114.76	3757419.38	1.70E-03	1.21E-01	6.55E-02	3.25E-02	5.16E-03	1.31E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372149.51	3757302.81	1.72E-03	1.42E-01	3.45E-02	2.08E-02	5.39E-03	1.36E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366675.72	3757743.67	8.30E-04	6.05E-03	4.00E-03	4.26E-03	9.40E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367105.41	3757963.83	6.70E-04	5.46E-03	3.56E-03	3.68E-03	8.90E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367221.30	3757911.68	7.30E-04	5.82E-03	3.79E-03	3.95E-03	9.50E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367346.43	3757955.57	6.90E-04	5.68E-03

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Diesel Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
368748.06	3758034.51	8.90E-04	8.12E-03	5.18E-03	5.03E-03	1.20E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368771.48	3755472.04	2.06E-03	1.35E-02	9.54E-03	1.04E-02	2.13E-03	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368806.72	3758070.98	8.90E-04	8.27E-03	5.23E-03	5.03E-03	1.18E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368863.73	3755470.88	2.01E-03	1.37E-02	9.37E-03	1.03E-02	2.15E-03	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368865.39	3758107.46	8.70E-04	8.35E-03	5.18E-03	4.93E-03	1.14E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368931.37	3758150.49	8.10E-04	8.27E-03	4.95E-03	4.67E-03	1.10E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368955.99	3755469.72	1.92E-03	1.38E-02	9.05E-03	9.92E-03	2.15E-03	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368974.29	3758177.61	7.60E-04	8.17E-03	4.75E-03	4.46E-03	1.08E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368992.63	3758138.09	8.00E-04	8.42E-03	4.97E-03	4.68E-03	1.13E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369011.06	3758086.77	8.70E-04	8.76E-03	5.28E-03	5.00E-03	1.19E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369048.25	3755468.56	1.79E-03	1.38E-02	8.55E-03	9.40E-03	2.13E-03	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369097.31	3758131.13	7.50E-04	8.51E-03	4.82E-03	4.51E-03	1.16E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369140.50	3755467.40	1.63E-03	1.36E-02	7.95E-03	8.77E-03	2.08E-03	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369216.91	3758091.16	6.90E-04	8.74E-03	4.74E-03	4.41E-03	1.22E-03	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369232.76	3755466.24	1.50E-03	1.34E-02	7.41E-03	8.19E-03	2.02E-03	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369267.76	3758146.04	6.00E-04	8.53E-03	4.34E-03	3.99E-03	1.16E-03	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369271.60	3758257.04	4.80E-04	7.90E-03	3.69E-03	3.36E-03	1.03E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369323.20	3758086.63	6.40E-04	8.97E-03	4.58E-03	4.23E-03	1.24E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369328.65	3758304.45	4.40E-04	7.93E-03	3.48E-03	3.13E-03	9.60E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369329.84	3755464.79	1.44E-03	1.34E-02	7.14E-03	7.85E-03	1.95E-03	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369342.43	3757939.52	8.40E-04	9.95E-03	5.51E-03	5.26E-03	1.46E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369386.54	3758429.44	3.80E-04	7.80E-03	3.01E-03	2.65E-03	8.00E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369387.36	3758507.71	3.40E-04	7.51E-03	2.77E-03	2.41E-03	7.20E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369449.11	3758008.60	6.80E-04	9.59E-03	4.92E-03	4.56E-03	1.35E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369426.92	3755463.35	1.46E-03	1.37E-02	7.24E-03	7.86E-03	1.87E-03	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369468.66	3758583.75	3.00E-04	7.13E-03	2.58E-03	2.16E-03	6.30E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369524.00	3755461.90	1.54E-03	1.39E-02	7.51E-03	8.06E-03	1.82E-03	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369549.13	3758582.89	3.20E-04	7.13E-03	2.74E-03	2.26E-03	6.30E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369621.08	3755460.45	1.58E-03	1.40E-02	7.66E-03	8.16E-03	1.78E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369629.61	3758582.03	3.50E-04	7.07E-03	2.90E-03	2.36E-03	6.20E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369710.08	3758581.17	3.60E-04	6.92E-03	3.00E-03	2.40E-03	6.10E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369718.16	3755459.00	1.55E-03	1.36E-02	7.50E-03	7.97E-03	1.76E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369787.02	3758286.68	4.60E-04	9.71E-03	3.90E-03	3.21E-03	8.50E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369788.19	3758398.38	4.10E-04	8.45E-03	3.49E-03	2.82E-03	7.40E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369789.37	3758489.35	3.70E-04	7.52E-03	3.21E-03	2.57E-03	6.70E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369815.24	3755457.56	1.43E-03	1.28E-02	7.00E-03	7.45E-03	1.74E-03	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369882.94	3758285.07	4.30E-04	9.42E-03	3.86E-03	3.08E-03	8.30E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369912.32	3755456.11	1.26E-03	1.17E-02	6.25E-03	6.72E-03	1.73E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369978.66	3758283.45	3.60E-04	8.97E-03	3.66E-03	2.83E-03	8.20E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370009.40	3755454.66	1.10E-03	1.08E-02	5.58E-03	6.06E-03	1.72E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370056.44	3758282.14	3.00E-04	8.49E-03	3.50E-03	2.64E-03	8.20E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370106.48	3755453.21	1.02E-03	1.03E-02	5.26E-03	5.75E-03	1.70E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370130.90	3758282.44	2.70E-04	8.16E-03	3.44E-03	2.51E-03	8.10E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370203.56	3755451.77	1.04E-03	1.01E-02	5.31E-03	5.77E-03	1.66E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370226.81	3758159.47	3.10E-04	9.86E-03	4.20E-03	3.00E-03	9.20E-04	2.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370227.55	3758221.46	2.90E-04	9.01E-03	3.89E-03	2.77E-03	8.60E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370228.30	3758283.44	2.70E-04	8.32E-03	3.64E-03	2.58E-03	8.00E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370253.14	3758168.84	3.10E-04	9.70E-03	4.19E-03	2.97E-03	9.10E-04	2.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370300.64	3755450.32	1.09E-03	9.97E-03	5.46E-03	5.86E-03	1.59E-03	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370308.97	3758176.51	3.00E-04	9.55E-03	4.22E-03	2.94E-03	8.90E-04	2.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370356.87	3758202.23	2.90E-04	9.25E-03	4.17E-03	2.86E-03	8.50E-04	2.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370397.72	3755448.87	1.09E-03	9.74E-03	5.44E-03	5.79E-03	1.52E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370404.21	3758225.88	2.80E-04	9.04E-03	4.14E-03	2.80E-03	8.30E-04	1.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370422.64	3758284.19	2.60E-04	8.48E-03	3.94E-03	2.63E-03	7.70E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370442.78	3758228.43	2.80E-04	9.07E-03	4.22E-03	2.82E-03	8.20E-04	2.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370465.02	3755455.18	1.06E-03	9.65E-03	5.33E-03	5.65E-03	1.48E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370522.53	3758282.84	2.70E-04	8.61E-03	4.21E-03	2.74E-03	7.70E-04	1.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370558.15	3755458.94	1.01E-03	9.52E-03	5.08E-03	5.38E-03	1.43E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370622.42	3758281.49	2.90E-04	8.73E-03	4.56E-03	2.88E-03	7.50E-04	2.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370624.63	3755467.51	9.90E-04	9.92E-03	4.98E-03	5.26E-03	1.40E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370691.11	3755476.08	9.70E-04	1.05E-02	4.87E-03	5.15E-03	1.38E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370722.31	3758280.14	3.10E-04	8.93E-03	4.96E-03	3.07E-03	7.40E-04	2.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370757.38	3755493.32	9.40E-04	1.12E-02	4.74E-03	5.01E-03	1.37E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370792.87	3757995.38	5.20E-04	1.37E-02	7.69E-03	4.91E-03	1.10E-03	2.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Diesel Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
370797.01	3758107.02	4.20E-04	1.14E-02	6.41E-03	4.03E-03	9.40E-04	2.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370798.36	3758194.12	3.60E-04	1.01E-02	5.73E-03	3.57E-03	8.30E-04	2.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370798.51	3757946.46	5.80E-04	1.49E-02	8.38E-03	5.40E-03	1.18E-03	3.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370799.71	3758281.23	3.20E-04	9.18E-03	5.31E-03	3.27E-03	7.50E-04	2.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370807.53	3755529.02	9.10E-04	1.17E-02	4.64E-03	4.92E-03	1.40E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370818.52	3757901.47	6.60E-04	1.62E-02	9.14E-03	5.95E-03	1.27E-03	3.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370851.08	3757864.53	7.20E-04	1.74E-02	9.91E-03	6.48E-03	1.36E-03	3.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370854.34	3755560.20	8.60E-04	1.22E-02	4.49E-03	4.79E-03	1.44E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370901.14	3755591.38	8.20E-04	1.26E-02	4.36E-03	4.68E-03	1.49E-03	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370908.58	3757858.61	7.50E-04	1.79E-02	1.06E-02	6.83E-03	1.41E-03	3.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370926.68	3755646.61	8.20E-04	1.34E-02	4.41E-03	4.77E-03	1.58E-03	1.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370932.48	3755705.67	8.60E-04	1.42E-02	4.62E-03	5.02E-03	1.69E-03	2.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370959.17	3757378.41	2.72E-03	5.35E-02	1.83E-02	1.62E-02	3.46E-03	3.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370959.96	3757296.11	3.70E-03	7.34E-02	2.23E-02	2.13E-02	4.71E-03	2.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370960.75	3757213.81	4.98E-03	1.01E-01	2.73E-02	2.81E-02	6.74E-03	2.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370961.54	3757131.59	6.27E-03	1.33E-01	3.22E-02	3.64E-02	1.02E-02	2.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370962.33	3757049.29	6.79E-03	1.66E-01	3.42E-02	4.45E-02	1.57E-02	2.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370963.12	3756966.90	6.52E-03	2.03E-01	3.31E-02	4.90E-02	2.05E-02	3.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370966.07	3757852.69	7.60E-04	1.86E-02	1.13E-02	7.19E-03	1.49E-03	3.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370968.09	3757808.70	8.10E-04	1.98E-02	1.18E-02	7.59E-03	1.59E-03	3.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370983.75	3755705.22	8.30E-04	1.44E-02	4.52E-03	4.88E-03	1.64E-03	2.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370986.42	3755628.02	7.70E-04	1.31E-02	4.24E-03	4.54E-03	1.51E-03	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370989.10	3755550.81	7.30E-04	1.21E-02	4.00E-03	4.28E-03	1.39E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370991.77	3755473.61	6.70E-04	1.13E-02	3.88E-03	4.03E-03	1.28E-03	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371017.44	3757371.98	2.82E-03	5.52E-02	1.95E-02	1.71E-02	3.70E-03	3.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371039.92	3757778.95	8.50E-04	2.16E-02	1.30E-02	8.29E-03	1.74E-03	4.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371061.56	3756965.39	5.50E-03	3.59E-01	2.98E-02	3.93E-02	1.49E-02	3.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371064.57	3755405.04	6.30E-04	1.01E-02	3.66E-03	3.75E-03	1.17E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371078.64	3757842.57	7.60E-04	2.05E-02	1.29E-02	7.95E-03	1.63E-03	4.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371116.65	3757378.24	2.78E-03	5.53E-02	2.11E-02	1.76E-02	3.82E-03	3.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371117.35	3757906.19	6.90E-04	1.92E-02	1.22E-02	7.40E-03	1.52E-03	3.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371160.25	3755403.96	5.80E-04	9.55E-03	3.58E-03	3.56E-03	1.11E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371160.00	3756963.88	4.69E-03	7.97E-01	2.72E-02	3.26E-02	1.14E-02	3.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371173.76	3757954.26	6.40E-04	1.86E-02	1.17E-02	7.08E-03	1.45E-03	3.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371174.47	3757986.09	6.20E-04	1.76E-02	1.10E-02	6.70E-03	1.37E-03	3.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371208.04	3757297.08	3.45E-03	7.86E-02	2.56E-02	2.21E-02	5.11E-03	3.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371208.86	3757379.92	4.76E-03	1.89E-02	2.21E-02	1.84E-02	3.94E-03	3.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371210.97	3757210.00	4.11E-03	1.18E-01	2.77E-02	2.64E-02	6.88E-03	3.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371243.87	3757985.25	6.10E-04	1.89E-02	1.18E-02	7.12E-03	1.42E-03	3.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371255.94	3755402.89	5.50E-04	9.24E-03	3.58E-03	3.45E-03	1.05E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371258.45	3756962.36	4.03E-03	2.33E+00	2.47E-02	2.75E-02	9.09E-03	4.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371275.69	3757208.66	3.87E-03	1.24E-01	2.83E-02	2.59E-02	6.74E-03	3.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371313.27	3757984.41	6.10E-04	2.05E-02	1.30E-02	7.68E-03	1.47E-03	3.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371348.54	3758024.62	5.80E-04	2.01E-02	1.30E-02	7.62E-03	1.41E-03	3.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371351.62	3755401.81	5.30E

Pollutant: ROG, Emissions Source: Diesel Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
373374.73	3757597.71	8.10E-04	4.73E-02	2.73E-02	1.30E-02	7.28E-02	3.28E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373374.83	3756432.37	3.50E-04	7.63E-03	3.34E-03	2.51E-03	1.60E-03	5.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373375.60	3757685.31	8.10E-04	4.82E-02	3.17E-02	1.52E-02	5.29E-02	2.37E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373393.43	3757684.85	8.00E-04	4.76E-02	3.09E-02	1.49E-02	5.13E-02	2.30E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373394.30	3757744.19	7.90E-04	4.81E-02	3.31E-02	1.62E-02	3.49E-02	1.55E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367047.63	3761097.01	1.20E-04	2.13E-03	9.90E-04	8.10E-04	2.40E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370737.54	3762942.92	2.00E-05	9.10E-04	3.90E-04	2.50E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371031.93	3758057.86	5.50E-04	1.40E-02	8.58E-03	5.34E-03	1.12E-03	3.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371034.38	3758338.88	3.30E-04	1.01E-02	6.62E-03	3.96E-03	8.00E-04	2.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371091.65	3754274.94	3.40E-04	4.37E-03	2.18E-03	2.04E-03	4.90E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371165.78	3758547.83	2.60E-04	9.02E-03	6.05E-03	3.51E-03	8.20E-04	2.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372241.00	3757383.00	1.59E-03	1.16E-01	4.40E-02	2.37E-02	5.86E-03	1.69E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372703.01	3761799.64	5.00E-05	1.62E-03	7.30E-04	4.60E-04	1.70E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374194.97	3754806.86	1.10E-04	2.30E-03	1.04E-03	7.90E-04	3.80E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374697.43	3760305.50	1.10E-04	3.71E-03	1.82E-03	1.11E-03	3.00E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375423.74	3758805.14	3.40E-04	1.35E-02	7.76E-03	4.44E-03	1.95E-03	7.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375433.42	3757541.59	3.50E-04	1.45E-02	4.52E-03	3.00E-03	2.21E-03	8.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378090.06	3758535.33	1.90E-04	7.83E-03	3.33E-03	2.05E-03	1.07E-03	3.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368494.88	3756671.28	4.51E-03	2.26E-02	1.92E-02	2.11E-02	3.51E-03	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370394.80	3756845.73	2.55E-02	1.31E-01	1.06E-01	2.11E-01	1.09E-01	2.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368983.23	3754581.57	6.00E-04	5.69E-03	3.12E-03	3.27E-03	8.80E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369216.41	3758422.45	3.90E-04	7.17E-03	3.02E-03	2.75E-03	8.60E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369532.57	3753391.67	1.42E-03	1.27E-02	6.96E-03	7.36E-03	1.61E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369574.04	3758166.39	5.00E-04	4.15E-03	3.59E-03	1.06E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369581.37	3758516.07	3.50E-04	7.65E-03	2.90E-03	2.42E-03	6.70E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369830.08	3755394.84	1.30E-03	1.13E-02	6.35E-03	6.77E-03	1.65E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370114.12	3758186.53	3.10E-04	9.67E-03	3.92E-03	2.90E-03	9.20E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371021.69	3757820.60	8.00E-04	2.02E-02	1.24E-02	7.81E-03	1.62E-03	3.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366809.77	3757837.27	7.70E-04	5.83E-03	3.84E-03	4.06E-03	9.30E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366843.26	3757860.52	7.50E-04	5.75E-03	3.78E-03	3.98E-03	9.20E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3758500.00	4.00E-04	3.78E-03	2.41E-03	2.28E-03	5.50E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3762500.00	5.00E-05	1.27E-03	6.70E-04	4.80E-04	1.70E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3763500.00	4.00E-05	1.02E-03	4.40E-04	3.20E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3764500.00	3.00E-05	8.70E-04	3.70E-04	2.70E-04	8.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366982.41	3757958.65	6.80E-04	5.41E-03	3.53E-03	3.67E-03	8.80E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367163.97	3758028.80	6.20E-04	5.18E-03	3.37E-03	3.43E-03	8.50E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367275.38	3757999.92	6.00E-04	5.39E-03	3.49E-03	3.57E-03	8.80E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367395.04	3758065.94	6.00E-04	5.24E-03	3.37E-03	3.37E-03	8.30E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367880.40	3758145.84	7.10E-04	5.96E-03	4.01E-03	3.85E-03	8.40E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367900.00	3761500.00	7.00E-05	1.66E-03	8.80E-04	6.10E-04	2.10E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367900.00	3762500.00	5.00E-05	1.25E-03	5.70E-04	4.10E-04	1.60E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367900.00	3764500.00	3.00E-05	7.30E-04	3.70E-04	2.60E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368068.97	3758068.94	8.10E-04	6.61E-03	4.50E-03	4.34E-03	9.20E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368182.48	3758015.85	8.50E-04	6.96E-03	4.67E-03	4.58E-03	1.01E-03	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368416.83	3757988.39	8.50E-04	7.29E-03	4.83E-03	4.70E-03	1.09E-03	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368577.94	3757979.23	9.10E-04	7.85E-03	5.12E-03	5.04E-03	1.19E-03	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368764.68	3758079.93	8.70E-04	8.07E-03	5.10E-03	4.91E-03	1.16E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3754500.00	5.60E-04	5.36E-03	2.92E-03	3.07E-03	8.50E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3759500.00	1.80E-04	3.55E-03	1.70E-03	1.31E-03	3.70E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3761500.00	7.00E-05	1.51E-03	7.50E-04	5.40E-04	2.10E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3762500.00	6.00E-05	1.13E-03	6.00E-04	4.30E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3763500.00	5.00E-05	9.10E-04	4.60E-04	3.40E-04	1.10E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3764500.00	4.00E-05	7.50E-04	3.50E-04	2.60E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368944.10	3758186.12	7.60E-04	8.09E-03	4.74E-03	4.45E-03	1.07E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369206.25	3758147.26	6.30E-04	8.38E-03	4.41E-03	4.08E-03	1.15E-03	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369268.49	3758066.34	6.80E-04	8.91E-03	4.76E-03	4.42E-03	1.26E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369333.85	3757999.43	7.30E-04	9.47E-03	5.08E-03	4.76E-03	1.36E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369425.60	3758641.99	2.90E-04	6.79E-03	2.48E-03	2.07E-03	6.00E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369599.53	3758634.67	3.30E-04	6.68E-03	2.76E-03	2.24E-03	5.90E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369775.29	3758632.83	3.30E-04	6.33E-03	2.94E-03	2.30E-03	5.80E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369834.01	3758329.23	4.30E-04	9.09E-03	3.72E-03	3.00E-03	7.90E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3754500.00	4.90E-04	4.25E-03	2.56E-03	2.75E-03	7.90E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3758500.00	3.30E-04	7.05E-03	3.13E-03	2.42E-03	6.60E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3759500.00	1.50E-04	3.77E-03	2.26E-03	1.50E-03	4.40E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Diesel Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
369900.00	3761500.00	6.00E-05	1.44E-03	7.20E-04	5.10E-04	1.90E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3762500.00	4.00E-05	1.07E-03	4.90E-04	3.50E-04	1.40E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3764500.00	3.00E-05	6.80E-04	3.20E-04	2.30E-04	8.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370006.10	3758331.16	3.20E-04	8.13E-03	3.40E-03	2.60E-03	7.80E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370183.69	3758338.49	2.50E-04	7.59E-03	3.32E-03	2.36E-03	7.50E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370425.35	3758336.66	2.40E-04	8.03E-03	3.79E-03	2.50E-03	7.30E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370701.79	3758334.82	2.80E-04	8.38E-03	4.69E-03	2.89E-03	7.00E-04	1.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370780.52	3758327.50	2.90E-04	8.71E-03	5.06E-03	3.10E-03	7.10E-04	2.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370900.00	3759500.00	9.00E-05	3.17E-03	1.73E-03	1.05E-03	4.80E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370900.00	3760500.00	6.00E-05	1.96E-03	9.00E-04	5.70E-04	2.30E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370900.00	3762500.00	3.00E-05	1.05E-03	4.40E-04	2.80E-04	1.10E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370900.00	3763500.00	2.00E-05	8.20E-04	3.30E-04	2.10E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370900.00	3764500.00	2.00E-05	6.70E-04	2.60E-04	1.70E-04	7.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371295.29	3758036.94	5.70E-04	1.85E-02	1.18E-02	7.01E-03	1.35E-03	3.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371421.46	3758118.19	5.10E-04	1.97E-02	1.38E-02	7.87E-03	1.30E-03	3.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371550.51	3758209.09	4.50E-04	1.86E-02	1.34E-02	7.52E-03	1.33E-03	3.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371685.28	3758299.81	4.00E-04	1.56E-02	1.03E-02	5.87E-03	1.44E-03	4.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371754.11	3758291.20	4.10E-04	1.60E-02	1.05E-02	5.96E-03	1.54E-03	5.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371807.64	3758213.78	4.70E-04	1.91E-02	1.34E-02	7.44E-03	1.68E-03	5.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371874.55	3758164.07	5.30E-04	2.15E-02	1.58E-02	8.71E-03	1.84E-03	5.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371900.00	3758500.00	3.20E-04	1.15E-02	6.62E-03	3.92E-03	1.42E-03	4.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371900.00	3759500.00	1.30E-04	4.45E-03	2.09E-03	1.31E-03	4.30E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371900.00	3760500.00	3.00E-04	1.25E-02	5.00E-03	3.10E-03	1.00E-03	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371900.00	3762500.00	2.00E-05	9.91E-04	3.80E-04	2.40E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371933.81	3758104.81	6.10E-04	2.53E-02	2.01E-02	1.09E-02	2.03E-03	6.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372241.00	3757883.00	9.20E-04	1.20E-01	1.38E-01	6.82E-02	3.69E-03	1.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372241.00	3757983.00	7.80E-04	5.25E-02	5.16E-02	2.63E-02	3.40E-03	1.17E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372341.00	3757883.00	9.20E-04	1.41E-01	1.65E-01	8.15E-02	4.42E-03	1.56E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372341.00	3757983.00	7.80E-04	5.99E-02	6.03E-02	3.06E-02	3.94E-03	1.42E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372900.00	3753500.00	1.30E-04	2.31E-03	9.30E-04	8.20E-04	2.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372900.00	3754500.00	2.00E-04	3.21E-03	1.47E-03	1.24E-03	4.30E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372900.00	3759500.00	1.50E-04	4.55E-03	2.75E-03	1.69E-03	5.70E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372900.00	3760500.00	9.00E-05	2.86E-03	1.40E-03	8.80E-04	3.00E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372900.00	3761500.00	4.00E-05	1.78E-03	8.20E-04	5.00E-04	1.90E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372900.00	3762500.00	4.00E-05	1.03E-03	4.70E-04	3.00E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757883.00	7.40E-04	4.35E-02	2.84E-02	1.42E-02	2.52E-02	1.11E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757983.00	7.40E-04	4.31E-02	3.05E-02	1.54E-02	1.44E-02	6.18E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757983.00	6.90E-04	4.14E-02	3.07E-02	1.58E-02	8.57E-03	3.55E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3756983.00	5.70E-04	2.28E-02	4.55E-03	3.76E-03	2.53E-03	8.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757083.00	6.00E-04	2.71E-02	4.99E-03	4.06E-03	2.85E-03	9.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757183.00	6.40E-04	3.10E-02	5.79E-03	4.46E-03	3.29E-03	1.15E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757283.00	6.70E-04	3.43E-02	7.26E-03	5.09E-03	4.76E-03	1.81E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757383.00	6.90E-04	3.67E-02	9.73E-03	6.05E-03	9.41E-03	3.92E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757483.00	7.10E-04	3.82E-02	1.33E-02	7.43E-03	1.89E-02	8.22E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757583.00	7.10

Pollutant: ROG, Emissions Source: Diesel Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
373541.00	3756983.00	6.00E-04	2.48E-02	4.91E-03	4.01E-03	2.85E-03	9.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757083.00	6.30E-04	2.95E-02	5.32E-03	4.30E-03	3.32E-03	1.17E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757183.00	6.70E-04	3.38E-02	6.14E-03	4.72E-03	3.87E-03	1.40E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757283.00	7.00E-04	3.72E-02	7.73E-03	5.38E-03	5.40E-03	2.07E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757383.00	7.20E-04	3.94E-02	1.06E-02	6.45E-03	1.13E-02	4.74E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757483.00	7.40E-04	4.12E-02	1.52E-02	8.22E-03	2.61E-02	1.15E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757583.00	7.50E-04	4.22E-02	2.03E-02	1.03E-02	3.95E-02	1.76E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757683.00	7.50E-04	4.29E-02	2.48E-02	1.23E-02	3.74E-02	1.67E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366455.27	3763213.67	5.00E-05	1.08E-03	5.40E-04	4.00E-04	1.50E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366669.62	3763342.53	4.00E-05	1.04E-03	4.90E-04	3.50E-04	1.40E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366671.31	3762769.21	5.00E-05	1.20E-03	6.30E-04	4.50E-04	1.60E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367494.53	3758314.82	5.50E-04	4.88E-03	3.19E-03	3.04E-03	6.90E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367575.16	3764900.80	3.00E-05	6.80E-04	3.50E-04	2.40E-04	8.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367638.49	3757975.16	6.90E-04	5.89E-03	3.80E-03	3.84E-03	9.40E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367728.62	3761967.19	6.00E-05	1.46E-03	7.30E-04	5.10E-04	1.90E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367787.59	3758292.62	6.40E-04	5.50E-03	3.67E-03	3.48E-03	7.50E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367831.34	3763245.91	4.00E-05	1.01E-03	4.60E-04	3.30E-04	1.20E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367900.00	3758500.00	4.40E-04	4.78E-03	2.79E-03	2.68E-03	7.30E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367926.08	3763311.16	4.00E-05	9.60E-04	4.60E-04	3.30E-04	1.10E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367964.98	3758232.97	6.70E-04	5.83E-03	3.84E-03	3.67E-03	8.20E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367976.37	3763336.74	4.00E-05	9.50E-04	4.50E-04	3.20E-04	1.10E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367978.91	3758390.10	5.10E-04	5.18E-03	3.15E-03	3.02E-03	7.90E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368188.78	3758591.47	4.80E-04	5.23E-03	2.93E-03	2.78E-03	6.80E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368501.11	3761632.38	6.00E-05	1.46E-03	7.30E-04	5.20E-04	2.10E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368505.49	3758571.22	5.30E-04	5.76E-03	3.17E-03	2.98E-03	6.80E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368673.29	3761677.69	6.00E-05	1.46E-03	7.00E-04	5.00E-04	2.00E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368693.42	3758359.47	6.60E-04	6.89E-03	3.98E-03	3.74E-03	8.70E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368842.92	3761590.39	6.00E-05	1.47E-03	7.30E-04	5.20E-04	2.00E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368869.11	3754097.89	4.40E-04	3.97E-03	2.28E-03	2.34E-03	6.00E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368869.83	3765067.00	3.00E-05	6.90E-04	3.10E-04	2.40E-04	8.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368969.99	3761647.20	7.00E-05	1.41E-03	7.30E-04	5.30E-04	1.90E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368970.54	3754677.64	6.40E-04	6.22E-03	3.34E-03	3.53E-03	9.70E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369007.11	3762513.11	6.00E-05	1.14E-03	6.10E-04	4.40E-04	1.40E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369227.99	3762251.91	6.00E-05	1.22E-03	6.50E-04	4.70E-04	1.50E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369242.37	3754695.62	7.10E-04	6.24E-03	3.60E-03	3.73E-03	9.10E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369456.98	3762567.48	5.00E-05	1.11E-03	5.50E-04	4.00E-04	1.40E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369504.00	3754702.08	7.00E-04	6.26E-03	3.75E-03	3.89E-03	9.10E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369767.91	3761150.98	7.00E-05	1.62E-03	8.50E-04	6.10E-04	2.20E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369809.34	3764567.65	3.00E-05	6.80E-04	3.20E-04	2.30E-04	8.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369845.18	3754154.97	3.90E-04	3.21E-03	1.99E-03	2.17E-03	6.20E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369848.41	3753976.49	3.60E-04	3.16E-03	1.85E-03	1.99E-03	5.70E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370097.88	3760014.31	9.00E-05	2.44E-03	1.29E-03	8.90E-04	4.30E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370150.95	3754699.75	4.80E-04	4.66E-03	2.52E-03	2.72E-03	8.30E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370192.96	3758860.70	1.50E-04	5.18E-03	2.70E-03	1.74E-03	5.50E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370243.17	3759622.98	8.00E-05	2.98E-03	1.68E-03	1.06E-03	4.60E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370246.20	3754243.12	3.40E-04	4.07E-03	1.83E-03	1.92E-03	5.70E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370290.74	3759464.60	8.00E-05	3.36E-03	2.00E-03	1.23E-03	4.70E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370608.78	3762239.97	3.00E-05	1.05E-03	4.70E-04	3.00E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370614.80	3762181.53	3.00E-05	1.06E-03	4.70E-04	3.00E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370625.96	3761759.08	2.00E-05	7.60E-04	3.50E-04	2.10E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370723.56	3763867.78	2.00E-05	7.50E-04	3.10E-04	2.00E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370968.58	3759443.63	8.00E-05	3.35E-03	1.79E-03	1.06E-03	5.00E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371139.14	3758179.30	4.70E-04	1.31E-02	8.36E-03	5.12E-03	9.90E-04	2.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371516.05	3762577.75	3.00E-05	1.12E-03	4.50E-04	2.80E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371721.40	3759371.61	1.40E-04	4.67E-03	2.13E-03	1.34E-03	4.80E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371973.81	3758892.65	2.40E-04	7.60E-03	4.04E-03	2.51E-03	7.90E-04	2.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372687.72	3759513.01	1.60E-04	4.83E-03	2.71E-03	1.68E-03	5.00E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372943.49	3761051.66	6.00E-05	2.10E-03	1.02E-03	6.30E-04	2.30E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373546.52	3760907.48	8.00E-05	2.19E-03	1.24E-03	7.80E-04	2.70E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373736.60	3756503.93	3.40E-04	7.55E-03	3.00E-03	2.35E-03	1.24E-03	4.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373758.20	3758043.23	6.30E-04	3.56E-02	2.50E-02	1.30E-02	7.69E-03	3.18E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373781.58	3755802.14	1.70E-04	3.39E-03	1.69E-03	1.26E-03	7.30E-04	2.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373814.20	3756040.57	2.00E-04	3.88E-03	1.97E-03	1.48E-03	8.00E-04	2.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373990.06	3753826.14	1.20E-04	1.79E-03	9.90E-04	8.10E-04	2.70E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Diesel Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
374057.73	3758196.53	5.40E-04	2.82E-02	1.88E-02	1.00E-02	5.19E-03	2.09E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374270.95	3758673.42	3.70E-04	1.62E-02	1.06E-02	5.82E-03	1.91E-03	7.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374561.05	3757642.94	4.90E-04	2.36E-02	8.60E-03	5.12E-03	5.94E-03	2.45E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374688.84	3758984.90	2.80E-04	1.15E-02	6.99E-03	3.96E-03	1.30E-03	4.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374693.96	3758983.17	2.80E-04	1.15E-02	7.00E-03	3.97E-03	1.31E-03	4.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374717.46	3762574.39	3.00E-05	6.50E-04	3.40E-04	2.40E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375503.80	3764537.77	2.00E-05	7.80E-04	3.80E-04	2.40E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375614.97	3760555.10	1.00E-04	2.93E-03	1.51E-03	9.80E-04	3.70E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375718.04	3758204.95	3.50E-04	1.58E-02	7.31E-03	4.25E-03	3.00E-03	1.19E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375902.79	3764940.52	2.00E-05	6.70E-04	3.30E-04	2.10E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375908.38	3763938.71	3.00E-05	6.30E-04	3.40E-04	2.40E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375920.60	3762083.39	3.00E-05	1.35E-03	5.90E-04	3.80E-04	1.10E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376709.15	3756388.48	1.40E-04	2.68E-03	1.02E-03	8.70E-04	3.00E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376814.39	3754856.21	6.00E-05	1.02E-03	5.40E-04	4.20E-04	1.70E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377050.15	3761774.29	7.00E-05	1.90E-03	9.40E-04	6.10E-04	2.40E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377052.34	3761911.90	6.00E-05	1.82E-03	8.90E-04	5.80E-04	2.20E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377227.14	3756422.42	1.30E-04	2.49E-03	9.50E-04	8.10E-04	2.80E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377237.88	3763993.21	3.00E-05	1.04E-03	4.60E-04	3.10E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377313.01	3756205.13	1.10E-04	1.98E-03	8.00E-04	6.80E-04	2.30E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377330.56	3760754.60	1.00E-04	3.61E-03	1.81E-03	1.11E-03	3.80E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377342.37	3764027.27	3.00E-05	1.03E-03	4.60E-04	3.10E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377388.19	3762578.39	4.00E-05	1.57E-03	7.10E-04	4.30E-04	1.70E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377563.47	3760840.44	1.20E-04	4.78E-03	2.20E-03	1.41E-03	5.40E-04	1.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377753.42	3759272.76	2.00E-05	7.78E-03	3.78E-03	2.29E-03	1.08E-03	3.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377839.66	3764649.02	3.00E-05	9.10E-04	4.00E-04	2.70E-04	8.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377841.65	3762246.94	6.00E-05	1.72E-03	8.30E-04	5.40E-04	2.10E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377908.39	3762502.03	5.00E-05	1.58E-03	7.50E-04	4.80E-04	1.90E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377916.00	3755241.12	6.00E-05	1.02E-03	4.60E-04	3.80E-04	1.40E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377924.86	3763642.88	3.00E-05	1.19E-03	5.20E-04	3.10E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377967.05	3762224.48	6.00E-05	1.76E-03	8.50E-04	5.50E-04	2.20E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378003.52	3753139.05	4.00E-05	7.10E-04	3.70E-04	2.80E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378022.11	3755897.25	7.00E-05	1.32E-03	5.60E-04	4.70E-04	1.60E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378066.59	3761432.90	8.00E-05	2.67E-03	1.30E-03	8.10E-04	2.80E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378209.66	3764122.39	3.00E-05	1.06E-03	4.60E-04	2.80E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378212.33	3753511.52	4.00E-05	6.90E-04	3.40E-04	2.70E-04	1.10E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378223.51	3760237.39	1.30E-04	5.16E-03	2.56E-03	1.53E-03	6.20E-04	2.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378326.90	3764105.95	3.00E-05	1.07E-03	4.40E-04	2.80E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378366.51	3755075.26	5.00E-05	9.00E-04	4.00E-04	3.40E-04	1.20E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378370.05	3759869.86	1.80E-04	6.18E-03	3.06E-03	1.88E-03	8.00E-04	2.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378781.96	3760336.17	1.30E-04	4.98E-03	2.43E-03	1.47E-03	6.10E-04	2.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378862.39	3757229.87	1.20E-04	3.47E-03	1.08E-03	8.40E-04	3.60E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3669900.00	3759500.00	2.20E-04	2.84E-03	1.41E-03	1.33E-03	3.40E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3679900.00	3759500.00	2.60E-04	3.78E-03	1.70E-03	1.54E-03	3.90E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3669900.00	3760500.00	1.60E-04	2.62E-03	1.16E-03	1.00E-03	2.60E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Diesel Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
373900.00	3762500.00	3.00E-05	1.07E-03	3.80E-04	2.40E-04	1.00E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3763500.00	2.00E-05	6.30E-04	3.50E-04	2.20E-04	8.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3753500.00	8.00E-05	1.36E-03	6.70E-04	5.50E-04	2.30E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3758500.00	4.00E-04	1.81E-02	1.07E-02	5.95E-03	3.02E-03	1.18E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3754500.00	7.00E-05	1.28E-03	6.60E-04	4.90E-04	1.80E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3757500.00	3.00E-04	1.15E-02	3.52E-03	2.42E-03	1.55E-03	5.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3758500.00	3.30E-04	1.43E-02	7.09E-03	4.10E-03	2.51E-03	9.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3759500.00	1.80E-04	7.58E-03	4.10E-03	2.36E-03	8.30E-04	2.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3753500.00	5.00E-05	8.80E-04	4.50E-04	3.50E-04	1.10E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3754500.00	5.00E-05	9.40E-04	4.90E-04	3.80E-04	1.60E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3757500.00	2.20E-04	7.93E-03	2.47E-03	1.75E-03	9.60E-04	3.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3763500.00	4.00E-05	1.17E-03	5.20E-04	3.50E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377900.00	3758500.00	2.00E-04	8.12E-03	3.46E-03	2.13E-03	1.12E-03	4.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378900.00	3754500.00	5.00E-05	6.70E-04	3.50E-04	2.90E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378900.00	3761500.00	8.00E-05	2.86E-03	1.37E-03	8.40E-04	3.00E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379900.00	3753500.00	3.00E-05	4.90E-04	2.60E-04	2.00E-04	7.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379900.00	3758500.00	1.40E-04	5.54E-03	2.12E-03	1.36E-03	7.10E-04	2.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
380900.00	3764500.00	4.00E-05	9.90E-04	4.60E-04	3.10E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3753500.00	3.00E-05	3.80E-04	2.00E-04	1.60E-04	5.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3758500.00	1.00E-04	3.91E-03	1.40E-03	9.30E-04	4.50E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3758500.00	8.00E-05	2.82E-03	1.00E-03	6.80E-04	3.10E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3759500.00	9.00E-05	3.42E-03	1.38E-03	8.70E-04	3.90E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3760500.00	9.00E-05	3.45E-03	1.43E-03	9.00E-04	4.00E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3761500.00	9.00E-05	2.99E-03	1.36E-03	8.60E-04	3.50E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368085.00	3755395.00	1.70E-03	1.02E-02	7.65E-03	8.26E-03	1.54E-03	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368185.00	3755395.00	1.79E-03	1.06E-02	8.08E-03	8.75E-03	1.64E-03	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368285.00	3755395.00	1.83E-03	1.11E-02	8.32E-03	9.01E-03	1.72E-03	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368385.00	3755395.00	1.87E-03	1.15E-02	8.52E-03	9.24E-03	1.79E-03	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368485.00	3755395.00	1.88E-03	1.18E-02	8.64E-03	9.39E-03	1.86E-03	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368585.00	3755395.00	1.89E-03	1.22E-02	8.74E-03	9.51E-03	1.91E-03	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368685.00	3755395.00	1.89E-03	1.26E-02	8.79E-03	9.57E-03	1.96E-03	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368785.00	3755395.00	1.85E-03	1.29E-02	8.66E-03	9.45E-03	1.98E-03	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368885.00	3755395.00	1.77E-03	1.30E-02	8.39E-03	9.16E-03	1.99E-03	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368985.00	3755395.00	1.65E-03	1.30E-02	7.94E-03	8.69E-03	1.97E-03	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369085.00	3755395.00	1.51E-03	1.28E-02	7.38E-03	8.11E-03	1.93E-03	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369185.00	3755395.00	1.38E-03	1.26E-02	6.86E-03	7.55E-03	1.88E-03	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369285.00	3755395.00	1.31E-03	1.25E-02	6.59E-03	7.22E-03	1.81E-03	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369385.00	3755395.00	1.32E-03	1.27E-02	6.59E-03	7.14E-03	1.73E-03	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369485.00	3755395.00	1.39E-03	1.27E-02	6.84E-03	7.26E-03	1.62E-03	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369585.00	3755395.00	1.46E-03	1.27E-02	7.08E-03	7.48E-03	1.63E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369685.00	3755395.00	1.46E-03	1.24E-02	7.03E-03	7.43E-03	1.65E-03	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369785.00	3755395.00	1.37E-03	1.18E-02	6.63E-03	7.04E-03	1.65E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369885.00	3755395.00	1.21E-03	1.08E-02	5.96E-03	6.39E-03	1.65E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369985.00	3755395.00	1.05E-03	1.02E-02	5.33E-03	5.77E-03	1.63E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370085.00	3755395.00	9.60E-04	9.58E-03	4.94E-03	5.39E-03	1.61E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370185.00	3755395.00	9.60E-04	9.36E-03	4.93E-03	5.35E-03	1.57E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370285.00	3755395.00	1.00E-03	9.22E-03	5.09E-03	5.46E-03	1.51E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370377.81	3755313.33	9.30E-04	8.19E-03	4.70E-03	4.99E-03	1.32E-03	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370477.81	3755313.33	9.20E-04	8.43E-03	4.58E-03	4.84E-03	1.25E-03	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370577.81	3755313.33	8.70E-04	8.66E-03	4.34E-03	4.57E-03	1.19E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370677.81	3755313.33	8.20E-04	9.30E-03	4.09E-03	4.32E-03	1.14E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370777.81	3755313.33	8.20E-04	1.02E-02	4.09E-03	4.30E-03	1.12E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370877.81	3755313.33	7.60E-04	1.03E-02	3.95E-03	4.11E-03	1.09E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370977.81	3755313.33	6.80E-04	9.79E-03	3.74E-03	3.83E-03	1.10E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371077.81	3755313.33	6.00E-04	9.20E-03	3.54E-03	3.57E-03	1.08E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371177.81	3755313.33	5.40E-04	8.71E-03	3.42E-03	3.36E-03	1.03E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371277.81	3755313.33	5.00E-04	8.43E-03	3.38E-03	3.22E-03	9.80E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371377.81	3755313.33	4.80E-04	8.21E-03	3.35E-03	3.13E-03	9.20E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371477.81	3755313.33	4.70E-04	7.94E-03	3.29E-03	3.03E-03	8.70E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371577.81	3755313.33	4.60E-04	7.67E-03	3.20E-03	2.91E-03	8.10E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371677.81	3755313.33	4.40E-04	7.57E-03	3.10E-03	2.78E-03	7.50E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371777.81	3755313.33	4.20E-04	7.66E-03	2.98E-03	2.64E-03	7.20E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371871.82	3755232.57	3.90E-04	7.19E-03	2.73E-03	2.41E-03	6.80E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371971.82	3755232.57	3.70E-04	7.19E-03	2.63E-03	2.30E-03	6.90E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Diesel Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
372071.82	3755232.57	3.40E-04	6.91E-03	2.52E-03	2.19E-03	7.10E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372171.82	3755232.57	3.20E-04	6.44E-03	2.40E-03	2.07E-03	7.30E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372271.82	3755232.57	2.90E-04	5.93E-03	2.28E-03	1.95E-03	7.50E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372371.82	3755232.57	2.70E-04	5.51E-03	2.15E-03	1.82E-03	7.40E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372471.82	3755232.57	2.50E-04	5.16E-03	2.03E-03	1.71E-03	7.10E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372571.82	3755232.57	2.30E-04	4.83E-03	1.95E-03	1.61E-03	6.80E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372671.82	3755232.57	2.10E-04	4.53E-03	1.90E-03	1.54E-03	6.40E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372771.82	3755232.57	2.00E-04	4.29E-03	1.89E-03	1.49E-03	6.10E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372871.82	3755232.57	1.90E-04	4.14E-03	1.89E-03	1.46E-03	5.90E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372971.82	3755232.57	1.80E-04	4.07E-03	1.88E-03	1.42E-03	5.80E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_ROG_Annual.xlsx Annual ROG Summary by Source

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Diesel Exhaust (G002), Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
369131.40	3758945.42	2.50E-04	5.53E-03	2.10E-03	1.75E-03	4.90E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370190.78	3758848.26	1.50E-04	5.23E-03	2.71E-03	1.75E-03	5.50E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370747.03	3763937.58	2.00E-05	7.40E-04	3.10E-04	2.00E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370757.72	3755124.52	6.70E-04	8.70E-03	3.45E-03	3.57E-03	9.30E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370946.70	3758260.69	3.60E-04	1.02E-02	6.22E-03	3.82E-03	8.20E-04	2.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371368.79	3754218.82	3.30E-04	4.07E-03	2.07E-03	1.94E-03	4.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371786.04	3754168.42	2.50E-04	3.34E-03	1.67E-03	1.55E-03	5.00E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373756.25	3761779.11	5.00E-05	1.64E-03	6.40E-04	4.20E-04	1.50E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367734.03	3758536.57	4.40E-04	4.58E-03	2.72E-03	2.61E-03	6.90E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368069.11	3760165.13	1.30E-04	2.80E-03	1.25E-03	1.00E-03	3.10E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369125.38	3763066.25	5.00E-05	1.00E-03	5.10E-04	3.70E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369225.45	3764227.42	4.00E-05	1.80E-03	3.50E-04	2.70E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370236.75	3761140.30	5.00E-05	1.54E-03	7.30E-04	5.00E-04	2.00E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372218.41	3759157.53	2.00E-04	6.42E-03	3.48E-03	2.14E-03	6.00E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372267.44	3762986.25	1.00E-05	8.20E-04	3.30E-04	2.00E-04	8.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374498.14	3758643.27	3.80E-04	1.68E-02	1.06E-02	5.88E-03	2.10E-03	7.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375472.61	3759680.03	1.70E-04	6.20E-03	3.42E-03	2.03E-03	6.90E-04	2.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375514.38	3757500.61	3.40E-04	1.36E-02	4.13E-03	2.79E-03	1.95E-03	7.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377395.41	3759189.37	2.20E-04	8.13E-03	4.03E-03	2.44E-03	1.14E-03	4.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366363.62	3757753.10	7.50E-04	5.54E-03	3.64E-03	3.87E-03	8.50E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369385.71	3758351.85	4.10E-04	8.04E-03	3.29E-03	2.92E-03	8.90E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369388.19	3758584.61	3.10E-04	7.14E-03	2.58E-03	2.21E-03	6.50E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371727.30	3758286.14	4.10E-04	1.61E-02	1.07E-02	6.07E-03	1.51E-03	4.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371973.18	3757657.97	1.36E-03	4.47E-01	5.61E-01	2.72E-01	4.01E-03	1.13E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372028.99	3757658.28	1.68E+00	2.16E+00	1.05E+00	1.05E+00	1.22E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372057.72	3757303.44	1.85E-03	1.46E-01	3.68E-02	2.24E-02	5.08E-03	1.12E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372058.94	3757365.68	1.81E-03	1.27E-01	5.03E-02	2.72E-02	4.98E-03	1.13E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372114.76	3757419.38	1.70E-03	1.21E-01	6.55E-02	3.25E-02	5.16E-03	1.31E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372149.51	3757302.81	1.72E-03	1.42E-01	3.45E-02	2.08E-02	5.39E-03	1.36E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366675.72	3757743.67	8.30E-04	6.05E-03	4.00E-03	4.26E-03	9.40E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367105.41	3757963.83	6.70E-04	5.46E-03	3.56E-03	3.68E-03	8.90E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367221.30	3757911.68	7.30E-04	5.82E-03	3.79E-03	3.95E-03	9.50E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Diesel Exhaust (G002), Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
368748.06	3758034.51	8.90E-04	8.12E-03	5.18E-03	5.03E-03	1.20E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368771.48	3755472.04	2.06E-03	1.35E-02	9.54E-03	1.04E-02	2.13E-03	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368806.72	3758070.98	8.90E-04	8.27E-03	5.23E-03	5.03E-03	1.18E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368863.73	3755470.88	2.01E-03	1.37E-02	9.37E-03	1.03E-02	2.15E-03	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368865.39	3758107.46	8.70E-04	8.35E-03	5.18E-03	4.93E-03	1.14E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368931.37	3758150.49	8.10E-04	8.27E-03	4.95E-03	4.67E-03	1.10E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368955.99	3755469.72	1.92E-03	1.38E-02	9.05E-03	9.92E-03	2.15E-03	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368974.29	3758177.61	7.60E-04	8.17E-03	4.75E-03	4.46E-03	1.08E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368992.63	3758138.09	8.00E-04	8.42E-03	4.97E-03	4.68E-03	1.13E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369011.06	3758086.77	8.70E-04	8.76E-03	5.28E-03	5.00E-03	1.19E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369048.25	3755468.56	1.79E-03	1.38E-02	8.55E-03	9.40E-03	2.13E-03	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369097.31	3758131.13	7.50E-04	8.51E-03	4.82E-03	4.51E-03	1.16E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369140.50	3755467.40	1.63E-03	1.36E-02	7.95E-03	8.77E-03	2.08E-03	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369216.91	3758091.16	6.90E-04	8.74E-03	4.74E-03	4.41E-03	1.22E-03	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369232.76	3755466.24	1.50E-03	1.34E-02	7.41E-03	8.19E-03	2.02E-03	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369267.76	3758146.04	6.00E-04	8.53E-03	4.34E-03	3.99E-03	1.16E-03	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369271.60	3758257.04	4.80E-04	7.90E-03	3.69E-03	3.36E-03	1.03E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369323.20	3758086.63	6.40E-04	8.97E-03	4.58E-03	4.23E-03	1.24E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369328.65	3758304.45	4.40E-04	7.93E-03	3.48E-03	3.13E-03	9.60E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369329.84	3755464.79	1.44E-03	1.34E-02	7.14E-03	7.85E-03	1.95E-03	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369342.43	3757939.52	8.40E-04	9.95E-03	5.51E-03	5.26E-03	1.46E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369386.54	3758429.44	3.80E-04	7.80E-03	3.01E-03	2.65E-03	8.00E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369387.36	3758507.31	3.40E-04	7.51E-03	2.77E-03	2.41E-03	7.20E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369449.11	3758008.60	6.80E-04	9.59E-03	4.92E-03	4.56E-03	1.35E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369426.92	3755463.35	1.46E-03	1.37E-02	7.24E-03	7.86E-03	1.87E-03	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369468.66	3758583.75	3.00E-04	7.13E-03	2.58E-03	2.16E-03	6.30E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369524.00	3755461.90	1.54E-03	1.39E-02	7.51E-03	8.06E-03	1.82E-03	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369549.13	3758582.89	3.20E-04	7.13E-03	2.74E-03	2.26E-03	6.30E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369621.08	3755460.45	1.58E-03	1.40E-02	7.66E-03	8.16E-03	1.78E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369629.61	3758582.03	3.50E-04	7.07E-03	2.90E-03	2.36E-03	6.20E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369710.08	3758581.17	3.60E-04	6.92E-03	3.00E-03	2.40E-03	6.10E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369718.16	3755459.00	1.55E-03	1.36E-02	7.50E-03	7.97E-03	1.76E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369787.02	3758286.68	4.60E-04	9.71E-03	3.90E-03	3.21E-03	8.50E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369788.19	3758398.38	4.10E-04	8.45E-03	3.49E-03	2.82E-03	7.40E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369789.37	3758489.35	3.70E-04	7.52E-03	3.21E-03	2.57E-03	6.70E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369815.24	3755457.56	1.43E-03	1.28E-02	7.00E-03	7.45E-03	1.74E-03	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369882.84	3758285.07	4.30E-04	9.42E-03	3.86E-03	3.08E-03	8.30E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369912.32	3755456.11	1.26E-03	1.17E-02	6.25E-03	6.72E-03	1.73E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369978.66	3758283.45	3.60E-04	8.97E-03	3.66E-03	2.83E-03	8.20E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370009.40	3755454.66	1.10E-03	1.08E-02	5.58E-03	6.06E-03	1.72E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370056.44	3758282.14	3.00E-04	8.49E-03	3.50E-03	2.64E-03	8.20E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370106.48	3755453.21	1.02E-03	1.03E-02	5.26E-03	5.75E-03	1.70E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370130.90	3758282.44	2.70E-04	8.16E-03	3.44E-03	2.51E-03	8.10E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370203.56	3755451.77	1.04E-03	1.01E-02	5.31E-03	5.77E-03	1.66E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370226.81	3758159.47	3.10E-04	9.86E-03	4.20E-03	3.00E-03	9.20E-04	2.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370227.55	3758221.46	2.90E-04	9.01E-03	3.89E-03	2.77E-03	8.60E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370228.30	3758283.44	2.70E-04	8.32E-03	3.64E-03	2.58E-03	8.00E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370253.14	3758168.84	3.10E-04	9.70E-03	4.19E-03	2.97E-03	9.10E-04	2.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370300.64	3755450.32	1.09E-03	9.97E-03	5.46E-03	5.86E-03	1.59E-03	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370308.97	3758176.51	3.00E-04	9.55E-03	4.22E-03	2.94E-03	8.90E-04	2.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370356.87	3758202.23	2.90E-04	9.25E-03	4.17E-03	2.86E-03	8.50E-04	2.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370397.72	3755448.87	1.09E-03	9.74E-03	5.44E-03	5.79E-03	1.52E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370404.21	3758225.88	2.80E-04	9.04E-03	4.14E-03	2.80E-03	8.30E-04	1.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370422.64	3758284.19	2.60E-04	8.48E-03	3.94E-03	2.63E-03	7.70E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370442.78	3758228.43	2.80E-04	9.07E-03	4.22E-03	2.82E-03	8.20E-04	2.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370465.02	3755455.18	1.06E-03	9.65E-03	5.33E-03	5.65E-03	1.48E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370522.53	3758282.84	2.70E-04	8.61E-03	4.21E-03	2.74E-03	7.70E-04	1.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370558.15	3755458.94	1.01E-03	9.52E-03	5.08E-03	5.38E-03	1.43E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370622.42	3758281.49	2.90E-04	8.73E-03	4.56E-03	2.88E-03	7.50E-04	2.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370624.63	3755467.51	9.90E-04	9.92E-03	4.98E-03	5.26E-03	1.40E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370691.11	3755476.08	9.70E-04	1.05E-02	4.87E-03	5.15E-03	1.38E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370722.31	3758280.14	3.10E-04	8.93E-03	4.96E-03	3.07E-03	7.40E-04	2.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370757.38	3755493.32	9.40E-04	1.12E-02	4.74E-03	5.01E-03	1.37E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370792.87	3757995.38	5.20E-04	1.37E-02	7.69E-03	4.91E-03	1.10E-03	2.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Diesel Exhaust (G002), Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
370797.01	3758107.02	4.20E-04	1.14E-02	6.41E-03	4.03E-03	9.40E-04	2.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370798.36	3758194.12	3.60E-04	1.01E-02	5.73E-03	3.57E-03	8.30E-04	2.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370798.51	3757946.46	5.80E-04	1.49E-02	8.38E-03	5.40E-03	1.18E-03	3.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370799.71	3758281.23	3.20E-04	9.18E-03	5.31E-03	3.27E-03	7.50E-04	2.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370807.53	3755529.02	9.10E-04	1.17E-02	4.64E-03	4.92E-03	1.40E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370818.52	3757901.47	6.60E-04	1.62E-02	9.14E-03	5.95E-03	1.27E-03	3.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370851.08	3757864.53	7.20E-04	1.74E-02	9.91E-03	6.48E-03	1.36E-03	3.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370854.34	3755560.20	8.60E-04	1.22E-02	4.49E-03	4.79E-03	1.44E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370901.14	3755591.38	8.20E-04	1.26E-02	4.36E-03	4.68E-03	1.49E-03	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370908.58	3757858.61	7.50E-04	1.79E-02	1.06E-02	6.83E-03	1.41E-03	3.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370929.68	3755646.61	8.20E-04	1.34E-02	4.41E-03	4.77E-03	1.58E-03	1.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370932.48	3755705.67	8.60E-04	1.42E-02	4.62E-03	5.02E-03	1.69E-03	2.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370959.17	3757378.41	2.72E-03	5.35E-02	1.83E-02	1.62E-02	3.46E-03	3.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370959.96	3757296.11	3.70E-03	7.34E-02	2.23E-02	2.13E-02	4.71E-03	2.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370960.75	3757213.81	4.98E-03	1.01E-01	2.73E-02	2.81E-02	6.74E-03	2.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370961.54	3757131.59	6.27E-03	1.33E-01	3.22E-02	3.64E-02	1.02E-02	2.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370962.33	3757049.29	6.79E-03	1.66E-01	3.42E-02	4.45E-02	1.57E-02	2.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370963.12	3756966.90	6.52E-03	2.03E-01	3.31E-02	4.90E-02	2.05E-02	3.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370966.07	3757852.69	7.60E-04	1.86E-02	1.13E-02	7.19E-03	1.49E-03	3.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370968.09	3757808.70	8.10E-04	1.98E-02	1.18E-02	7.59E-03	1.59E-03	3.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370983.75	3755705.22	8.30E-04	1.44E-02	4.52E-03	4.88E-03	1.64E-03	2.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370986.42	3755628.02	7.70E-04	1.31E-02	4.24E-03	4.54E-03	1.51E-03	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370989.10	3755550.81	7.30E-04	1.21E-02	4.04E-03	4.28E-03	1.39E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370991.77	3755473.61	6.90E-04	1.12E-02	3.88E-03	4.03E-03	1.28E-03	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371017.44	3757371.98	2.82E-03	5.52E-02	1.95E-02	1.71E-02	3.70E-03	3.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371039.92	3757778.95	8.50E-04	2.16E-02	1.30E-02	8.29E-03	1.74E-03	4.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371061.56	3756965.39	5.50E-03	3.59E-01	2.98E-02	3.93E-02	1.49E-02	3.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371064.57	3755405.04	6.30E-04	1.01E-02	3.66E-03	3.75E-03	1.17E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371078.64	3757842.57	7.60E-04	2.05E-02	1.29E-02	7.95E-03	1.63E-03	4.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371116.65	3757378.24	2.78E-03	5.53E-02	2.11E-02	1.76E-02	3.82E-03	3.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371117.35	3757906.19	6.90E-04	1.92E-02	1.22E-02	7.40E-03	1.52E-03	3.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371160.25	3755403.96	5.80E-04	9.55E-03	3.58E-03	3.56E-03	1.11E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371160.00	3756963.88	4.69E-03	7.97E-01	2.72E-02	3.26E-02	1.14E-02	3.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371173.76	3757954.26	6.40E-04	1.86E-02	1.17E-02	7.08E-03	1.45E-03	3.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371174.47	3757986.09	6.20E-04	1.76E-02	1.10E-02	6.70E-03	1.37E-03	3.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371208.04	3757297.08	3.45E-03	7.86E-02	2.56E-02	2.21E-02	5.11E-03	3.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371208.86	3757379.92	2.76E-03	1.89E-02	2.21E-02	1.84E-02	3.94E-03	3.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371210.97	3757210.00	4.11E-03	1.18E-01	2.77E-02	2.64E-02	6.88E-03	3.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371243.87	3757985.25	6.10E-04	1.89E-02	1.18E-02	7.12E-03	1.42E-03	3.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371255.94	3755402.89	5.50E-04	9.24E-03	3.58E-03	3.45E-03	1.05E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371258.45	3756962.36	4.03E-03	2.33E+00	2.47E-02	2.75E-02	9.09E-03	4.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371275.69	3757208.66	3.87E-03	1.24E-01	2.83E-02	2.59E-02	6.74E-03	3.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371313.27	3757984.41	6.10E-04	2.05E-02	1.30E-02	7.68E-03	1.47E-03	3.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371348.54	3758024.62	5.80E-04	2.01E-02	1.30E-02	7.62E-03	1.41E-03	3.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+

Pollutant: ROG, Emissions Source: Diesel Exhaust (G002), Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
373374.73	3757597.71	8.10E-04	4.73E-02	2.73E-02	1.30E-02	7.28E-02	3.28E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373374.83	3756432.37	3.50E-04	7.63E-03	3.34E-03	2.51E-03	1.60E-03	5.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373375.60	3757685.31	8.10E-04	4.82E-02	3.17E-02	1.52E-02	5.29E-02	2.37E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373393.43	3757684.85	8.00E-04	4.76E-02	3.09E-02	1.49E-02	5.13E-02	2.30E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373394.30	3757744.19	7.90E-04	4.81E-02	3.31E-02	1.62E-02	3.49E-02	1.55E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367047.63	3761097.01	1.20E-04	2.13E-03	9.90E-04	8.10E-04	2.40E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370737.54	3762942.92	2.00E-05	9.10E-04	3.90E-04	2.50E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371031.93	3758057.86	5.50E-04	1.40E-02	8.58E-03	5.34E-03	1.12E-03	3.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371034.38	3758338.88	3.30E-04	1.01E-02	6.62E-03	3.96E-03	8.00E-04	2.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371091.65	3754274.94	3.40E-04	4.37E-03	2.18E-03	2.04E-03	4.90E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371165.78	3758547.83	2.60E-04	9.02E-03	6.05E-03	3.51E-03	8.20E-04	2.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372241.00	3757383.00	1.59E-03	1.16E-01	4.40E-02	2.37E-02	5.86E-03	1.69E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372703.01	3761799.64	5.00E-05	1.62E-03	7.30E-04	4.60E-04	1.70E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374194.97	3754806.86	1.10E-04	2.30E-03	1.04E-03	7.90E-04	3.80E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374697.43	3760305.50	1.10E-04	3.71E-03	1.82E-03	1.11E-03	3.00E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375423.74	3758805.14	3.40E-04	1.35E-02	7.76E-03	4.44E-03	1.95E-03	7.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375433.42	3757541.59	3.50E-04	1.45E-02	4.52E-03	3.00E-03	2.21E-03	8.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378090.06	3758535.33	1.90E-04	7.83E-03	3.33E-03	2.05E-03	1.07E-03	3.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368494.88	3756671.28	4.51E-03	2.26E-02	1.92E-02	2.11E-02	3.51E-03	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370394.80	3756845.73	2.55E-02	1.31E-01	1.06E-01	2.11E-01	1.09E-01	2.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368983.23	3754581.57	6.00E-04	5.69E-03	3.12E-03	3.27E-03	8.80E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369216.41	3758422.45	3.90E-04	7.17E-03	3.02E-03	2.75E-03	8.60E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369532.57	3753391.67	1.42E-03	1.27E-02	6.96E-03	7.36E-03	1.61E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369574.04	3758166.39	5.00E-04	4.15E-03	3.35E-03	1.06E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369581.37	3758516.07	3.50E-04	7.65E-03	2.90E-03	2.42E-03	6.70E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369830.08	3755394.84	1.30E-03	1.13E-02	6.35E-03	6.77E-03	1.65E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370114.12	3758186.53	3.10E-04	9.67E-03	3.92E-03	2.90E-03	9.20E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371021.69	3757820.60	8.00E-04	2.02E-02	1.24E-02	7.81E-03	1.62E-03	3.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366809.77	3757837.27	7.70E-04	5.83E-03	3.84E-03	4.06E-03	9.30E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366843.26	3757860.52	7.50E-04	5.75E-03	3.78E-03	3.98E-03	9.20E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3758500.00	4.00E-04	3.78E-03	2.41E-03	2.28E-03	5.50E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3762500.00	5.00E-05	1.27E-03	6.70E-04	4.80E-04	1.70E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3763500.00	4.00E-05	1.02E-03	4.40E-04	3.20E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3764500.00	3.00E-05	8.70E-04	3.70E-04	2.70E-04	8.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366982.41	3757958.65	6.80E-04	5.41E-03	3.53E-03	3.67E-03	8.80E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367163.97	3758028.80	6.20E-04	5.18E-03	3.37E-03	3.43E-03	8.50E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367275.38	3757999.92	6.40E-04	5.39E-03	3.49E-03	3.57E-03	8.80E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367395.04	3758065.94	6.00E-04	5.24E-03	3.37E-03	3.37E-03	8.30E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367880.40	3758145.84	7.10E-04	5.96E-03	4.01E-03	3.85E-03	8.40E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367900.00	3761500.00	7.00E-05	1.66E-03	8.80E-04	6.10E-04	2.10E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367900.00	3762500.00	5.00E-05	1.25E-03	5.70E-04	4.10E-04	1.60E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367900.00	3764500.00	3.00E-05	7.30E-04	3.70E-04	2.60E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368068.97	3758068.94	8.10E-04	6.61E-03	4.50E-03	4.34E-03	9.20E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368182.48	3758015.85	8.50E-04	6.96E-03	4.67E-03	4.58E-03	1.01E-03	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368416.83	3757988.39	8.50E-04	7.29E-03	4.83E-03	4.70E-03	1.09E-03	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368577.94	3757979.23	9.10E-04	7.85E-03	5.12E-03	5.04E-03	1.19E-03	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368764.68	3758079.93	8.70E-04	8.07E-03	5.10E-03	4.91E-03	1.16E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3754500.00	5.60E-04	5.36E-03	2.92E-03	3.07E-03	8.50E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3759500.00	1.80E-04	3.55E-03	1.70E-03	1.31E-03	3.70E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3761500.00	7.00E-05	1.51E-03	7.50E-04	5.40E-04	2.10E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3762500.00	6.00E-05	1.13E-03	6.00E-04	4.30E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3763500.00	5.00E-05	9.10E-04	4.60E-04	3.40E-04	1.10E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3764500.00	4.00E-05	7.50E-04	3.50E-04	2.60E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368944.10	3758186.12	7.60E-04	8.09E-03	4.74E-03	4.45E-03	1.07E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369206.25	3758147.26	6.30E-04	8.38E-03	4.41E-03	4.08E-03	1.15E-03	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369268.49	3758066.34	6.80E-04	8.91E-03	4.76E-03	4.42E-03	1.26E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369333.85	3757999.43	7.30E-04	9.47E-03	5.08E-03	4.76E-03	1.36E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369425.60	3758641.99	2.90E-04	6.79E-03	2.48E-03	2.07E-03	6.00E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369599.53	3758634.67	3.30E-04	6.68E-03	2.76E-03	2.24E-03	5.90E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369775.29	3758632.83	3.30E-04	6.33E-03	2.94E-03	2.30E-03	5.80E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369834.01	3758329.23	4.30E-04	9.09E-03	3.72E-03	3.00E-03	7.90E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3754500.00	4.90E-04	4.25E-03	2.56E-03	2.75E-03	7.90E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3758500.00	3.30E-04	7.05E-03	3.13E-03	2.42E-03	6.60E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3759500.00	1.50E-04	3.77E-03	2.26E-03	1.50E-03	4.40E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Diesel Exhaust (G002), Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
369900.00	3761500.00	6.00E-05	1.44E-03	7.20E-04	5.10E-04	1.90E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3762500.00	4.00E-05	1.07E-03	4.90E-04	3.50E-04	1.40E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3764500.00	3.00E-05	6.80E-04	3.20E-04	2.30E-04	8.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370006.10	3758331.16	3.20E-04	8.13E-03	3.40E-03	2.60E-03	7.80E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370183.69	3758338.49	2.50E-04	7.59E-03	3.32E-03	2.36E-03	7.50E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370425.35	3758336.66	2.40E-04	8.03E-03	3.79E-03	2.50E-03	7.30E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370701.79	3758334.82	2.80E-04	8.38E-03	4.69E-03	2.89E-03	7.00E-04	1.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370780.52	3758327.50	2.90E-04	8.71E-03	5.06E-03	3.10E-03	7.10E-04	2.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370900.00	3759500.00	9.00E-05	3.17E-03	1.73E-03	1.05E-03	4.80E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370900.00	3760500.00	6.00E-05	1.96E-03	9.00E-04	5.70E-04	2.30E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370900.00	3762500.00	3.00E-05	1.05E-03	4.40E-04	2.80E-04	1.10E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370900.00	3763500.00	2.00E-05	8.20E-04	3.30E-04	2.10E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370900.00	3764500.00	2.00E-05	6.70E-04	2.60E-04	1.70E-04	7.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371295.29	3758036.94	5.70E-04	1.85E-02	1.18E-02	7.01E-03	1.35E-03	3.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371421.46	3758118.19	5.10E-04	1.97E-02	1.38E-02	7.87E-03	1.30E-03	3.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371550.51	3758209.09	4.50E-04	1.86E-02	1.34E-02	7.52E-03	1.33E-03	3.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371685.28	3758299.81	4.00E-04	1.56E-02	1.03E-02	5.87E-03	1.44E-03	4.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371754.11	3758291.20	4.10E-04	1.60E-02	1.05E-02	5.96E-03	1.54E-03	5.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371807.64	3758213.78	4.70E-04	1.91E-02	1.34E-02	7.44E-03	1.68E-03	5.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371874.55	3758164.07	5.30E-04	2.15E-02	1.58E-02	8.71E-03	1.84E-03	5.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371900.00	3758500.00	3.20E-04	1.15E-02	6.62E-03	3.92E-03	1.42E-03	4.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371900.00	3759500.00	1.30E-04	4.45E-03	2.09E-03	1.31E-03	4.30E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371900.00	3760500.00	3.00E-05	1.25E-03	5.00E-04	3.10E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371900.00	3762500.00	2.00E-05	9.10E-04	3.90E-04	2.40E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371933.81	3758104.81	6.10E-04	2.53E-02	2.01E-02	1.09E-02	2.03E-03	6.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372241.00	3757883.00	9.20E-04	1.20E-01	1.38E-01	6.82E-02	3.69E-03	1.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372241.00	3757983.00	7.80E-04	5.25E-02	5.16E-02	2.63E-02	3.40E-03	1.17E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372341.00	3757883.00	9.20E-04	1.41E-01	1.65E-01	8.15E-02	4.42E-03	1.56E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372341.00	3757983.00	7.80E-04	5.99E-02	6.03E-02	3.06E-02	3.94E-03	1.42E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372900.00	3753500.00	1.30E-04	2.31E-03	9.30E-04	8.20E-04	2.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372900.00	3754500.00	2.00E-04	3.21E-03	1.47E-03	1.24E-03	4.30E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372900.00	3759500.00	1.50E-04	4.55E-03	2.75E-03	1.69E-03	5.70E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372900.00	3760500.00	9.00E-05	2.86E-03	1.40E-03	8.80E-04	3.00E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372900.00	3761500.00	4.00E-05	1.78E-03	8.20E-04	5.00E-04	1.90E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372900.00	3762500.00	4.00E-05	1.03E-03	4.70E-04	3.00E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757883.00	7.40E-04	4.35E-02	2.84E-02	1.42E-02	2.52E-02	1.11E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757983.00	7.40E-04	4.31E-02	3.05E-02	1.54E-02	1.44E-02	6.18E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757983.00	6.90E-04	4.14E-02	3.07E-02	1.58E-02	8.57E-03	3.55E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3756983.00	5.70E-04	2.28E-02	4.55E-03	3.76E-03	2.53E-03	8.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757083.00	6.00E-04	2.71E-02	4.99E-03	4.06E-03	2.85E-03	9.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757183.00	6.40E-04	3.10E-02	5.79E-03	4.46E-03	3.29E-03	1.15E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757283.00	6.70E-04	3.43E-02	7.26E-03	5.09E-03	4.76E-03	1.81E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757383.00	6.90E-04	3.67E-02	9.73E-03	6.05E-03	9.41E-03	3.92E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757483.00	7.10E-04	3.82E-02	1.33E-02	7.43E-03	1.89E-02	8.22E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Diesel Exhaust (G002), Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
373541.00	3756983.00	6.00E-04	2.48E-02	4.91E-03	4.01E-03	2.85E-03	9.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757083.00	6.30E-04	2.95E-02	5.32E-03	4.30E-03	3.32E-03	1.17E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757183.00	6.70E-04	3.38E-02	6.14E-03	4.72E-03	3.87E-03	1.40E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757283.00	7.00E-04	3.72E-02	7.73E-03	5.38E-03	5.40E-03	2.07E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757383.00	7.20E-04	3.94E-02	1.06E-02	6.45E-03	1.13E-02	4.74E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757483.00	7.40E-04	4.12E-02	1.52E-02	8.22E-03	2.61E-02	1.15E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757583.00	7.50E-04	4.22E-02	2.03E-02	1.03E-02	3.95E-02	1.76E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757683.00	7.50E-04	4.29E-02	2.48E-02	1.23E-02	3.74E-02	1.67E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366455.27	3763213.67	5.00E-05	1.08E-03	5.40E-04	4.00E-04	1.50E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366669.62	3763342.53	4.00E-05	1.04E-03	4.90E-04	3.50E-04	1.40E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366671.31	3762769.21	5.00E-05	1.20E-03	6.30E-04	4.50E-04	1.60E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367494.53	3758314.82	5.50E-04	4.88E-03	3.19E-03	3.04E-03	6.90E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367575.16	3764900.80	3.00E-05	6.80E-04	3.50E-04	2.40E-04	8.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367638.49	3757975.16	6.90E-04	5.89E-03	3.80E-03	3.84E-03	9.40E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367728.62	3761967.19	6.00E-05	1.46E-03	7.30E-04	5.10E-04	1.90E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367787.59	3758292.62	6.40E-04	5.50E-03	3.67E-03	3.48E-03	7.50E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367831.34	3763245.91	4.00E-05	1.01E-03	4.60E-04	3.30E-04	1.20E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367900.00	3758500.00	4.40E-04	4.78E-03	2.79E-03	2.68E-03	7.30E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367926.08	3763311.16	4.00E-05	9.60E-04	4.60E-04	3.30E-04	1.10E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367964.98	3758232.97	6.70E-04	5.83E-03	3.84E-03	3.67E-03	8.20E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367976.37	3763336.74	4.00E-05	9.50E-04	4.50E-04	3.20E-04	1.10E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367978.91	3758390.10	5.10E-04	5.18E-03	3.15E-03	3.02E-03	7.90E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368188.78	3758591.47	4.30E-04	5.23E-03	2.93E-03	2.78E-03	6.80E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368501.11	3763632.38	6.00E-05	1.26E-03	7.30E-04	5.20E-04	2.10E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368505.49	3758571.22	5.30E-04	5.76E-03	3.17E-03	2.98E-03	6.80E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368673.29	3761677.69	6.00E-05	1.46E-03	7.00E-04	5.00E-04	2.00E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368693.42	3758359.47	6.60E-04	6.89E-03	3.98E-03	3.74E-03	8.70E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368842.92	3761590.39	6.00E-05	1.47E-03	7.30E-04	5.20E-04	2.00E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368869.11	3754097.89	4.40E-04	3.97E-03	2.28E-03	2.34E-03	6.00E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368869.83	3765067.00	3.00E-05	6.90E-04	3.10E-04	2.40E-04	8.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368969.99	3761647.20	7.00E-05	1.41E-03	7.30E-04	5.30E-04	1.90E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368970.54	3754677.64	6.40E-04	6.22E-03	3.34E-03	3.53E-03	9.70E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369007.11	3762513.11	6.00E-05	1.14E-03	6.10E-04	4.40E-04	1.40E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369227.99	3762251.91	6.00E-05	1.22E-03	6.50E-04	4.70E-04	1.50E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369242.37	3754695.62	7.10E-04	6.24E-03	3.60E-03	3.73E-03	9.10E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369456.98	3762567.48	5.00E-05	1.11E-03	5.50E-04	4.00E-04	1.40E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369504.00	3754702.08	7.00E-04	6.26E-03	3.75E-03	3.89E-03	9.10E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369767.91	3761150.98	7.00E-05	1.62E-03	8.50E-04	6.10E-04	2.20E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369809.34	3764567.65	3.00E-05	6.80E-04	3.20E-04	2.30E-04	8.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369845.18	3754154.97	3.90E-04	3.21E-03	1.99E-03	2.17E-03	6.20E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369848.41	3753976.49	3.60E-04	3.16E-03	1.85E-03	1.99E-03	5.70E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370097.88	3760014.31	9.00E-05	2.44E-03	1.29E-03	8.90E-04	4.30E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370150.95	3754699.75	4.80E-04	4.66E-03	2.52E-03	2.72E-03	8.30E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370192.96	3758860.70	1.50E-04	5.18E-03	2.70E-03	1.74E-03	5.50E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370243.17	3759622.98	8.00E-05	2.98E-03	1.68E-03	1.06E-03	4.60E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370246.20	3754243.12	3.40E-04	4.07E-03	1.83E-03	1.92E-03	5.70E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370290.74	3759464.60	8.00E-05	3.36E-03	2.00E-03	1.23E-03	4.70E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370608.78	3762239.97	3.00E-05	1.05E-03	4.70E-04	3.00E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370614.80	3762181.53	3.00E-05	1.06E-03	4.70E-04	3.00E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370625.96	3761759.08	2.00E-05	7.60E-04	4.20E-04	2.50E-04	8.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370723.56	3763867.78	2.00E-05	7.50E-04	3.10E-04	2.00E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370968.58	3759443.63	8.00E-05	3.35E-03	1.79E-03	1.06E-03	5.00E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371139.14	3758179.30	4.70E-04	1.31E-02	8.36E-03	5.12E-03	9.90E-04	2.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371516.05	3762577.75	3.00E-05	1.12E-03	4.50E-04	2.80E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371721.40	3759371.61	1.40E-04	4.67E-03	2.13E-03	1.34E-03	4.80E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371973.81	3758892.65	2.40E-04	7.60E-03	4.04E-03	2.51E-03	7.90E-04	2.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372687.72	3759513.01	1.60E-04	4.83E-03	2.71E-03	1.68E-03	5.00E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372943.49	3761051.66	6.00E-05	2.10E-03	1.02E-03	6.30E-04	2.30E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373546.52	3760907.48	8.00E-05	2.19E-03	1.24E-03	7.80E-04	2.70E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373736.60	3756503.93	3.40E-04	7.55E-03	3.00E-03	2.35E-03	1.24E-03	4.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373758.20	3758043.23	6.30E-04	3.56E-02	2.50E-02	1.30E-02	7.69E-03	3.18E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373781.58	3755802.14	1.70E-04	3.39E-03	1.69E-03	1.26E-03	7.30E-04	2.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373814.20	3756040.57	2.00E-04	3.88E-03	1.97E-03	1.48E-03	8.00E-04	2.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373990.06	3753826.14	1.20E-04	1.79E-03	9.90E-04	8.10E-04	2.70E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Diesel Exhaust (G002), Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
374057.73	3758196.53	5.40E-04	2.82E-02	1.88E-02	1.00E-02	5.19E-03	2.09E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374270.95	3758673.42	3.70E-04	1.62E-02	1.06E-02	5.82E-03	1.91E-03	7.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374561.05	3757642.94	4.90E-04	2.36E-02	8.60E-03	5.12E-03	5.94E-03	2.45E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374688.84	3758984.90	2.80E-04	1.15E-02	6.99E-03	3.96E-03	1.30E-03	4.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374693.96	3758983.17	2.80E-04	1.15E-02	7.00E-03	3.97E-03	1.31E-03	4.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374717.46	3762574.39	3.00E-05	6.50E-04	3.40E-04	2.40E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375503.80	3764537.77	2.00E-05	7.80E-04	3.80E-04	2.40E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375614.97	3760555.10	1.00E-04	2.93E-03	1.51E-03	9.80E-04	3.70E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375718.04	3758204.95	3.50E-04	1.58E-02	7.31E-03	4.25E-03	3.00E-03	1.19E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375902.79	3764940.52	2.00E-05	6.70E-04	3.30E-04	2.10E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375908.38	3763938.71	3.00E-05	6.30E-04	3.40E-04	2.40E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375920.60	3762083.39	3.00E-05	1.35E-03	5.90E-04	3.80E-04	1.10E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376709.15	3756388.48	1.40E-04	2.68E-03	1.02E-03	8.70E-04	3.00E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376814.39	3754856.21	6.00E-05	1.02E-03	5.40E-04	4.20E-04	1.70E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377050.15	3761774.29	7.00E-05	1.90E-03	9.40E-04	6.10E-04	2.40E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377052.34	3761911.90	6.00E-05	1.82E-03	8.90E-04	5.80E-04	2.20E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377227.14	3756422.42	1.30E-04	2.49E-03	9.50E-04	8.10E-04	2.80E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377237.88	3763993.21	3.00E-05	1.04E-03	4.60E-04	3.10E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377313.01	3756205.13	1.10E-04	1.98E-03	8.00E-04	6.80E-04	2.30E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377330.56	3760754.60	1.00E-04	3.61E-03	1.81E-03	1.11E-03	3.80E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377342.37	3764027.27	3.00E-05	1.03E-03	4.60E-04	3.10E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377388.19	3762578.39	4.00E-05	1.57E-03	7.10E-04	4.30E-04	1.70E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377563.47	3760840.44	1.20E-04	2.47E-03	1.41E-03	5.40E-04	1.90E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377753.42	3759272.76	2.00E-04	7.78E-03	3.78E-03	2.29E-03	1.08E-03	3.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377839.66	3764649.02	3.00E-05	9.10E-04	4.00E-04	2.70E-04	8.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377841.65	3762246.94	6.00E-05	1.72E-03	8.30E-04	5.40E-04	2.10E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377908.39	3762502.03	5.00E-05	1.58E-03	7.50E-04	4.80E-04	1.90E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377916.00	3755241.12	6.00E-05	1.02E-03	4.60E-04	3.80E-04	1.40E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377924.86	3763642.88	3.00E-05	1.19E-03	5.20E-04	3.10E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377967.05	3762224.48	6.00E-05	1.76E-03	8.50E-04	5.50E-04	2.20E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378003.52	3753139.05	4.00E-05	7.10E-04	3.70E-04	2.80E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378022.11	3755897.25	7.00E-05	1.32E-03	5.60E-04	4.70E-04	1.60E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378066.59	3761432.90	8.00E-05	2.67E-03	1.30E-03	8.10E-04	2.80E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378209.66	3764122.39	3.00E-05	1.06E-03	4.60E-04	2.80E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378212.33	3753511.52	4.00E-05	6.90E-04	3.40E-04	2.70E-04	1.10E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378223.51	3760237.39	1.30E-04	5.16E-03	2.56E-03	1.53E-03	6.20E-04	2.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378326.90	3764105.95	3.00E-05	1.07E-03	4.40E-04	2.80E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378366.51	3755075.26	5.00E-05	9.00E-04	4.00E-04	3.40E-04	1.20E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378370.05	3759869.86	1.80E-04	6.18E-03	3.06E-03	1.88E-03	8.00E-04	2.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378781.96	3760336.17	1.30E-04	4.98E-03	2.43E-03	1.47E-03	6.10E-04	2.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378862.39	3757229.87	1.20E-04	3.47E-03	1.08E-03	8.40E-04	3.60E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3759500.00	2.20E-04	2.84E-03	1.41E-03	1.33E-03	3.40E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367900.00	3759500.00	2.60E-04	3.78E-03	1.70E-03	1.54E-03	3.90E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3760500.00	1.60E-04	2.62E-03	1.16E-03	1.00E-03	2.60E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Diesel Exhaust (G002), Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
373900.00	3762500.00	3.00E-05	1.07E-03	3.80E-04	2.40E-04	1.00E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3763500.00	2.00E-05	6.30E-04	3.50E-04	2.20E-04	8.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3753500.00	8.00E-05	1.36E-03	6.70E-04	5.50E-04	2.30E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3758500.00	4.00E-04	1.81E-02	1.07E-02	5.95E-03	3.02E-03	1.18E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3754500.00	7.00E-05	1.28E-03	6.60E-04	4.90E-04	1.80E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3757500.00	3.00E-04	1.15E-02	3.52E-03	2.42E-03	1.55E-03	5.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3758500.00	3.30E-04	1.43E-02	7.09E-03	4.10E-03	2.51E-03	9.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3759500.00	1.80E-04	7.58E-03	4.10E-03	2.36E-03	8.30E-04	2.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3753500.00	5.00E-05	8.80E-04	4.50E-04	3.50E-04	1.10E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3754500.00	5.00E-05	9.40E-04	4.90E-04	3.80E-04	1.60E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3757500.00	2.20E-04	7.93E-03	2.47E-03	1.75E-03	9.60E-04	3.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3763500.00	4.00E-05	1.17E-03	5.20E-04	3.50E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377900.00	3758500.00	2.00E-04	8.12E-03	3.46E-03	2.13E-03	1.12E-03	4.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378900.00	3754500.00	5.00E-05	6.70E-04	3.50E-04	2.90E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378900.00	3761500.00	8.00E-05	2.86E-03	1.37E-03	8.40E-04	3.00E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379900.00	3753500.00	3.00E-05	4.90E-04	2.60E-04	2.00E-04	7.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379900.00	3758500.00	1.40E-04	5.54E-03	2.12E-03	1.36E-03	7.10E-04	2.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
380900.00	3764500.00	4.00E-05	9.90E-04	4.60E-04	3.10E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3753500.00	3.00E-05	3.80E-04	2.00E-04	1.60E-04	5.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3758500.00	1.00E-04	3.91E-03	1.40E-03	9.30E-04	4.50E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3758500.00	8.00E-05	2.82E-03	1.00E-03	6.80E-04	3.10E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3759500.00	9.00E-05	3.42E-03	1.38E-03	8.70E-04	3.90E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3760500.00	9.00E-05	3.45E-03	1.43E-03	9.00E-04	4.00E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3761500.00	9.00E-05	2.99E-03	1.36E-03	8.60E-04	3.50E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368085.00	3755395.00	1.70E-03	1.02E-02	7.65E-03	8.26E-03	1.54E-03	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368185.00	3755395.00	1.79E-03	1.06E-02	8.08E-03	8.75E-03	1.64E-03	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368285.00	3755395.00	1.83E-03	1.11E-02	8.32E-03	9.01E-03	1.72E-03	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368385.00	3755395.00	1.87E-03	1.15E-02	8.52E-03	9.24E-03	1.79E-03	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368485.00	3755395.00	1.88E-03	1.18E-02	8.64E-03	9.39E-03	1.86E-03	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368585.00	3755395.00	1.89E-03	1.22E-02	8.74E-03	9.51E-03	1.91E-03	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368685.00	3755395.00	1.89E-03	1.26E-02	8.79E-03	9.57E-03	1.96E-03	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368785.00	3755395.00	1.85E-03	1.29E-02	8.66E-03	9.45E-03	1.98E-03	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368885.00	3755395.00	1.77E-03	1.30E-02	8.39E-03	9.16E-03	1.99E-03	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368985.00	3755395.00	1.65E-03	1.30E-02	7.94E-03	8.69E-03	1.97E-03	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369085.00	3755395.00	1.51E-03	1.28E-02	7.38E-03	8.11E-03	1.93E-03	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369185.00	3755395.00	1.38E-03	1.26E-02	6.86E-03	7.55E-03	1.88E-03	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369285.00	3755395.00	1.31E-03	1.25E-02	6.59E-03	7.22E-03	1.81E-03	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369385.00	3755395.00	1.32E-03	1.27E-02	6.59E-03	7.14E-03	1.73E-03	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369485.00	3755395.00	1.39E-03	1.27E-02	6.84E-03	7.26E-03	1.62E-03	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369585.00	3755395.00	1.46E-03	1.27E-02	7.08E-03	7.48E-03	1.63E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369685.00	3755395.00	1.46E-03	1.24E-02	7.03E-03	7.43E-03	1.65E-03	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369785.00	3755395.00	1.37E-03	1.18E-02	6.63E-03	7.04E-03	1.65E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369885.00	3755395.00	1.21E-03	1.08E-02	5.96E-03	6.39E-03	1.65E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369985.00	3755395.00	1.05E-03	1.02E-02	5.33E-03	5.77E-03	1.63E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370085.00	3755395.00	9.60E-04	9.58E-03	4.94E-03	5.39E-03	1.61E-03	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370185.00	3755395.00	9.60E-04	9.36E-03	4.93E-03	5.35E-03	1.57E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370285.00	3755395.00	1.00E-03	9.22E-03	5.09E-03	5.46E-03	1.51E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370377.81	3755313.33	9.30E-04	8.19E-03	4.70E-03	4.99E-03	1.32E-03	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370477.81	3755313.33	9.20E-04	8.43E-03	4.58E-03	4.84E-03	1.25E-03	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370577.81	3755313.33	8.70E-04	8.66E-03	4.34E-03	4.57E-03	1.19E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370677.81	3755313.33	8.20E-04	9.30E-03	4.09E-03	4.32E-03	1.14E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370777.81	3755313.33	8.20E-04	1.02E-02	4.09E-03	4.30E-03	1.12E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370877.81	3755313.33	7.60E-04	1.03E-02	3.95E-03	4.11E-03	1.09E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370977.81	3755313.33	6.80E-04	9.79E-03	3.74E-03	3.83E-03	1.10E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371077.81	3755313.33	6.00E-04	9.20E-03	3.54E-03	3.57E-03	1.08E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371177.81	3755313.33	5.40E-04	8.71E-03	3.42E-03	3.36E-03	1.03E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371277.81	3755313.33	5.00E-04	8.43E-03	3.38E-03	3.22E-03	9.80E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371377.81	3755313.33	4.80E-04	8.21E-03	3.35E-03	3.13E-03	9.20E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371477.81	3755313.33	4.70E-04	7.94E-03	3.29E-03	3.03E-03	8.70E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371577.81	3755313.33	4.60E-04	7.67E-03	3.20E-03	2.91E-03	8.10E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371677.81	3755313.33	4.40E-04	7.57E-03	3.10E-03	2.78E-03	7.50E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371777.81	3755313.33	4.20E-04	7.66E-03	2.98E-03	2.64E-03	7.20E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371871.82	3755232.57	3.90E-04	7.19E-03	2.73E-03	2.41E-03	6.80E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371971.82	3755232.57	3.70E-04	7.19E-03	2.63E-03	2.30E-03	6.90E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Diesel Exhaust (G002), Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
372071.82	3755232.57	3.40E-04	6.91E-03	2.52E-03	2.19E-03	7.10E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372171.82	3755232.57	3.20E-04	6.44E-03	2.40E-03	2.07E-03	7.30E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372271.82	3755232.57	2.90E-04	5.93E-03	2.28E-03	1.95E-03	7.50E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372371.82	3755232.57	2.70E-04	5.51E-03	2.15E-03	1.82E-03	7.40E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372471.82	3755232.57	2.50E-04	5.16E-03	2.03E-03	1.71E-03	7.10E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372571.82	3755232.57	2.30E-04	4.83E-03	1.95E-03	1.61E-03	6.80E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372671.82	3755232.57	2.10E-04	4.53E-03	1.90E-03	1.54E-03	6.40E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372771.82	3755232.57	2.00E-04	4.29E-03	1.89E-03	1.49E-03	6.10E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372871.82	3755232.57	1.90E-04	4.14E-03	1.89E-03	1.46E-03	5.90E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372971.82	3755232.57	1.80E-04	4.07E-03	1.88E-03	1.42E-03	5.80E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_ROG_Annual.xlsx Annual ROG Summary by Source

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Gasoline Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
369131.40	3758945.42	2.60E-04	5.41E-03	9.89E-03	9.33E-03	5.05E-03	2.02E-03	1.08E-03	2.70E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
370190.78	3758848.26	2.10E-04	6.43E-03	1.16E-02	9.21E-03	5.81E-03	2.56E-03	1.24E-03	4.40E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
370747.03	3763937.58	3.00E-05	7.90E-04	1.74E-03	1.45E-03	9.60E-04	4.50E-04	1.40E-04	5.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370757.72	3755124.52	6.40E-04	1.01E-02	1.97E-02	2.01E-02	9.89E-03	3.81E-03	2.44E-03	4.00E-04	9.00E-05	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
370946.70	3758260.69	4.30E-04	1.52E-02	2.60E-02	1.78E-02	1.05E-02	4.77E-03	2.90E-03	1.09E-03	2.50E-04	5.00E-05	2.90E-04	0.00E+00	0.00E+00	0.00E+00
371368.79	3754218.82	3.10E-04	5.23E-03	1.03E-02	1.01E-02	5.17E-03	1.97E-03	1.16E-03	2.20E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
371786.04	3754168.42	2.60E-04	4.54E-03	9.50E-03	9.34E-03	4.97E-03	1.96E-03	9.80E-04	2.00E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
373756.25	3761779.11	7.00E-05	1.46E-03	2.63E-03	1.97E-03	1.29E-03	6.50E-04	2.70E-04	9.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
367734.03	3758536.57	3.70E-04	6.80E-03	1.22E-02	1.22E-02	6.32E-03	2.45E-03	1.52E-03	2.80E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
368069.11	3760165.13	1.50E-04	3.18E-03	5.90E-03	5.48E-03	3.14E-03	1.32E-03	6.50E-04	1.60E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
369125.38	3763066.25	5.00E-05	1.13E-03	2.37E-03	2.09E-03	1.32E-03	6.10E-04	2.20E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369225.45	3764227.42	4.00E-05	8.60E-04	1.82E-03	1.61E-03	1.03E-03	4.70E-04	1.70E-04	5.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370236.75	3761140.30	7.00E-05	1.75E-03	3.91E-03	3.42E-03	2.28E-03	1.04E-03	3.10E-04	1.00E-04	3.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
372218.41	3759157.53	2.50E-04	7.22E-03	1.34E-02	9.38E-03	6.14E-03	2.96E-03	1.30E-03	4.70E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
372267.44	3762986.25	3.00E-05	7.40E-04	1.36E-03	1.03E-03	7.10E-04	3.50E-04	1.50E-04	5.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
374498.14	3758643.27	5.10E-04	1.66E-02	3.07E-02	2.08E-02	1.59E-02	8.21E-03	3.06E-03	1.14E-03	1.60E-04	3.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
375472.61	3759680.03	2.30E-04	6.70E-03	1.16E-02	8.17E-03	5.63E-03	2.81E-03	1.26E-03	4.40E-04	8.00E-05	2.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
375514.38	3757500.61	6.30E-04	9.66E-03	2.24E-02	2.09E-02	1.59E-02	9.06E-03	1.86E-03	5.50E-04	1.20E-04	2.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
377395.41	3759189.37	3.00E-04	7.29E-03	1.42E-02	1.12E-02	8.18E-03	4.21E-03	1.40E-03	4.70E-04	9.00E-05	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
366363.62	3757753.10	5.30E-04	8.82E-03	1.50E-02	1.57E-02	7.08E-03	2.58E-03	2.07E-03	3.00E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
369385.71	3758351.85	4.20E-04	8.53E-03	1.61E-02	1.63E-02	9.13E-03	3.51E-03	1.74E-03	3.90E-04	1.20E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
369388.19	3758584.61	3.50E-04	6.98E-03	1.31E-02	1.27E-02	6.89E-03	2.70E-03	1.39E-03	3.30E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
371727.30	3758286.14	5.50E-04	2.06E-02	3.51E-02	2.16E-02	1.34E-02	6.35E-03	3.64E-03	1.49E-03	2.40E-04	5.00E-05	2.70E-04	0.00E+00	0.00E+00	0.00E+00
371973.18	3757657.97	1.66E-03	4.23E-01	4.08E-01	6.87E-02	3.43E-02	5.01E-02	1.52E-01	1.09E-01	1.08E-03	2.20E-04	1.23E-03	0.00E+00	0.00E+00	0.00E+00
372028.99	3757658.28	1.60E-03	4.22E-01	6.20E-01	6.93E-02	3.48E-02	4.25E-02	7.41E-02	1.04E-02	2.10E-04	1.18E-03	9.00E-04	0.00E+00	0.00E+00	0.00E+00
372057.72	3757303.44	4.12E-03	1.16E-01	1.70E-01	9.54E-02	4.98E-02	2.14E-02	1.45E-02	1.82E-02	1.36E-03	2.80E-04	1.55E-03	0.00E+00	0.00E+00	0.00E+00
372058.94	3757365.68	3.47E-03	2.27E-01	2.50E-01	8.98E-02	4.71E-02	2.13E-02	1.77E-02	2.04E-02	1.37E-03	2.80E-04	1.56E-03	0.00E+00	0.00E+00	0.00E+00
372114.76	3757419.38	2.98E-03	2.94E-01	4.04E-01	8.51E-02	4.51E-02	2.23E-02	2.31E-02	1.87E-02	1.25E-03	2.50E-04	1.43E-03	0.00E+00	0.00E+00	0.00E+00
372149.51	3757302.81	3.88E-03	1.00E-01	1.68E-01	9.28E-02	4.96E-02	2.18E-02	1.22E-02	1.07E-02	1.19E-03	2.40E-04	1.35E-03	0.00E+00	0.00E+00	0.00E+00
366675.72	3757743.67	5.90E-04	9.79E-03	1.67E-02	1.74E-02	7.89E-03	2.88E-03	2.28E-03	3.30E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
367105.41	3757963.83	5.40E-04	9.40E-03	1.64E-02	1.69E-02	7.98E-03	2.96E-03	2.13E-03	3.40E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
367221.30	3757911.68	5.80E-04	9.99E-03	1.73E-02	1.80E-02	8.48E-03	3.13E-03	2.27E-03	3.50E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Gasoline Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
368748.06	3758034.51	6.80E-04	1.29E-02	2.28E-02	2.28E-02	1.15E-02	4.36E-03	2.76E-03	5.00E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
368771.48	3755472.04	1.46E-03	2.37E-02	3.98E-02	4.22E-02	1.82E-02	6.24E-03	6.47E-03	8.50E-04	8.00E-05	2.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
368806.72	3758070.98	6.70E-04	1.26E-02	2.25E-02	2.24E-02	1.12E-02	4.25E-03	2.71E-03	4.90E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
368863.73	3755470.88	1.45E-03	2.35E-02	3.98E-02	4.26E-02	1.85E-02	6.33E-03	6.54E-03	8.60E-04	8.00E-05	2.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
368865.39	3758107.46	6.50E-04	1.24E-02	2.21E-02	2.20E-02	1.10E-02	4.20E-03	2.68E-03	4.90E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
368931.37	3758150.49	6.20E-04	1.19E-02	2.14E-02	2.13E-02	1.09E-02	4.15E-03	2.60E-03	4.80E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
368955.99	3755469.72	1.41E-03	2.31E-02	3.94E-02	4.27E-02	1.88E-02	6.37E-03	6.53E-03	8.60E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
368974.29	3758177.61	6.00E-04	1.15E-02	2.08E-02	2.08E-02	1.08E-02	4.12E-03	2.53E-03	4.70E-04	9.00E-05	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
368992.63	3758138.09	6.30E-04	1.20E-02	2.17E-02	2.17E-02	1.12E-02	4.28E-03	2.65E-03	4.90E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
369011.06	3758086.77	6.60E-04	1.28E-02	2.30E-02	2.30E-02	1.18E-02	4.48E-03	2.80E-03	5.20E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
369048.25	3755468.56	1.36E-03	2.24E-02	3.88E-02	4.24E-02	1.89E-02	6.37E-03	6.42E-03	8.60E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369097.31	3758131.13	6.10E-04	1.19E-02	2.16E-02	2.18E-02	1.16E-02	4.42E-03	2.63E-03	5.00E-04	1.00E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
369140.50	3755467.40	1.30E-03	2.16E-02	3.79E-02	4.18E-02	1.88E-02	6.31E-03	6.22E-03	8.40E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369216.91	3758091.16	5.90E-04	1.20E-02	2.20E-02	2.25E-02	1.23E-02	4.71E-03	2.65E-03	5.20E-04	1.10E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
369232.76	3755466.24	1.25E-03	2.09E-02	3.71E-02	4.12E-02	1.86E-02	6.21E-03	5.96E-03	8.10E-04	9.00E-05	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
369267.76	3758146.04	5.70E-04	1.16E-02	2.17E-02	2.25E-02	1.26E-02	4.78E-03	2.47E-03	4.90E-04	1.20E-04	2.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
369271.60	3758257.04	4.70E-04	9.55E-03	1.79E-02	1.84E-02	1.05E-02	4.01E-03	2.03E-03	4.30E-04	1.10E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
369323.20	3758086.63	6.00E-04	1.25E-02	2.33E-02	2.41E-02	1.35E-02	5.12E-03	2.61E-03	5.20E-04	1.30E-04	3.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
369328.65	3758304.45	4.40E-04	8.95E-03	1.69E-02	1.72E-02	9.78E-03	3.76E-03	1.86E-03	4.00E-04	1.10E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
369329.84	3755464.79	1.20E-03	2.03E-02	3.64E-02	4.05E-02	1.82E-02	6.08E-03	5.63E-03	7.80E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
369342.43	3757939.52	7.30E-04	1.51E-02	2.78E-02	2.91E-02	1.61E-02	6.03E-03	3.21E-03	6.10E-04	1.40E-04	3.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
369386.54	3758429.44	3.90E-04	7.90E-03	1.49E-02	1.49E-02	8.27E-03	3.19E-03	1.60E-03	3.60E-04	1.10E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
369387.36	3758507.31	3.70E-04	7.37E-03	1.39E-02	1.37E-02	7.48E-03	2.95E-03	1.40E-03	3.40E-04	1.10E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
369449.11	3758008.60	6.40E-04	1.24E-02	2.54E-02	2.65E-02	1.50E-02	5.67E-03	2.84E-03	5.70E-04	1.40E-04	3.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
369426.92	3755463.35	1.19E-03	1.99E-02	3.61E-02	4.00E-02	1.79E-02	5.96E-03	5.34E-03	7.50E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
369468.66	3758583.75	3.50E-04	7.04E-03	1.31E-02	1.24E-02	6.66E-03	2.63E-03	1.39E-03	3.30E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
369524.00	3755461.90	1.18E-03	1.98E-02	3.61E-02	3.96E-02	1.75E-02	5.88E-03	5.12E-03	7.30E-04	1.00E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
369549.13	3758582.89	3.60E-04	7.36E-03	1.37E-02	1.26E-02	6.79E-03	2.71E-03	1.42E-03	3.50E-04	1.00E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
369621.08	3755460.45	1.18E-03	1.96E-02	3.60E-02	3.92E-02	1.73E-02	5.87E-03	5.01E-03	7.20E-04	1.10E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
369629.61	3758582.03	3.60E-04	7.58E-03	1.40E-02	1.26E-02	6.75E-03	2.73E-03	1.46E-03	3.70E-04	1.00E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
369710.08	3758581.17	3.60E-04	7.83E-03	1.44E-02	1.28E-02	6.98E-03	2.84E-03	1.51E-03	3.90E-04	1.10E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
369718.16	3755459.00	1.15E-03	1.92E-02	3.54E-02	3.85E-02	1.72E-02	5.91E-03	4.96E-03	7.10E-04	1.10E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
369787.02	3758286.68	4.60E-04	9.99E-03	1.93E-02	1.83E-02	1.03E-02	4.02E-03	1.95E-03	4.70E-04	1.50E-04	3.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
369788.19	3758398.38	4.10E-04	9.24E-03	1.78E-02	1.66E-02	9.52E-03	3.77E-03	1.78E-03	4.50E-04	1.40E-04	3.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
369789.37	3758489.35	3.70E-04	8.56E-03	1.63E-02	1.51E-02	8.68E-03	3.47E-03	1.63E-03	4.20E-04	1.20E-04	2.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
369815.24	3755457.56	1.10E-03	1.85E-02	3.44E-02	3.75E-02	1.72E-02	5.99E-03	4.89E-03	7.00E-04	1.10E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
369882.94	3758285.07	4.40E-04	1.02E-02	1.99E-02	1.86E-02	1.08E-02	4.24E-03	1.99E-03	5.00E-04	1.60E-04	3.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
369912.32	3755456.11	1.03E-03	1.75E-02	3.30E-02	3.62E-02	1.72E-02	6.05E-03	4.71E-03	6.80E-04	1.10E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
369978.66	3758283.45	4.10E-04	9.91E-03	1.92E-02	1.76E-02	1.03E-02	4.13E-03	1.97E-03	5.00E-04	1.60E-04	3.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
370009.40	3755454.66	9.60E-04	1.65E-02	3.17E-02	3.50E-02	1.71E-02	6.03E-03	4.41E-03	6.40E-04	1.20E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
370056.44	3758282.14	3.80E-04	9.45E-03	1.79E-02	1.61E-02	9.76E-03	3.96E-03	1.90E-03	5.10E-04	1.60E-04	3.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
370106.48	3755453.21	9.10E-04	1.58E-02	3.07E-02	3.40E-02	1.68E-02	5.93E-03	4.07E-03	6.00E-04	1.20E-04	2.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
370130.90	3758282.44	3.60E-04	9.38E-03	1.75E-02	1.55E-02	9.61E-03	3.95E-03	1.81E-03	5.20E-04	1.60E-04	3.00E-05	1.90E-04	0.00E+00	0.00E+00	0.00E+00
370203.56	3755451.77	8.80E-04	1.54E-02	3.03E-02	3.33E-02	1.64E-02	5.76E-03	3.80E-03	5.70E-04	1.20E-04	3.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
370226.81	3758159.47	4.30E-04	1.17E-02	2.29E-02	2.02E-02	1.22E-02	4.89E-03	2.12E-03	6.30E-04	2.30E-04	5.00E-05	2.60E-04	0.00E+00	0.00E+00	0.00E+00
370227.55	3758221.46	4.00E-04	1.11E-02	2.15E-02	1.88E-02	1.14E-02	4.59E-03	1.99E-03	6.00E-04	2.10E-04	4.00E-05	2.40E-04	0.00E+00	0.00E+00	0.00E+00
370228.30	3758283.44	3.70E-04	1.06E-02	2.03E-02	1.75E-02	1.07E-02	4.33E-03	1.87E-03	5.80E-04	2.00E-04	4.00E-05	2.30E-04	0.00E+00	0.00E+00	0.00E+00
370253.14	3758168.84	4.20E-04	1.17E-02	2.29E-02	1.99E-02	1.21E-02	4.83E-03	2.10E-03	6.30E-04	2.30E-04	5.00E-05	2.70E-04	0.00E+00	0.00E+00	0.00E+00
370300.64	3755450.32	8.70E-04	1.52E-02	3.02E-02	3.29E-02	1.60E-02	5.68E-03	3.63E-03	5.50E-04	1.30E-04	3.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
370308.94	3758176.51	4.10E-04	1.19E-02	2.31E-02	1.96E-02	1.23E-02	4.78E-03	2.09E-03	6.50E-04	2.40E-04	5.00E-05	2.80E-04	0.00E+00	0.00E+00	0.00E+00
370356.87	3758202.23	4.00E-04	1.18E-02	2.28E-02	1.90E-02	1.15E-02	4.65E-03	2.05E-03	6.60E-04	2.40E-04	5.00E-05	2.70E-04	0.00E+00	0.00E+00	0.00E+00
370397.72	3755448.87	8.70E-04	1.50E-02	3.00E-02	3.24E-02	1.55E-02	5.53E-03	3.56E-03	5.40E-04	1.30E-04	3.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
370404.21	3758225.88	3.80E-04	1.19E-02	2.27E-02	1.85E-02	1.11E-02	4.54E-03	2.03E-03	6.70E-04	2.30E-04	5.00E-05	2.70E-04	0.00E+00	0.00E+00	0.00E+00
370422.64	3758284.19	3.60E-04	1.14E-02	2.16E-02	1.73E-02	1.05E-02	4.32E-03	1.94E-03	6.60E-04	2.20E-04	4.00E-05	2.50E-04	0.00E+00	0.00E+00	0.00E+00
370442.78	3758228.43	3.80E-04	1.21E-02	2.29E-02	1.84E-02	1.10E-02	4.54E-03	2.05E-03	6.90E-04	2.40E-04	5.00E-05	2.70E-04	0.00E+00	0.00E+00	0.00E+00
370465.02	3755455.18	8.70E-04	1.49E-02	3.01E-02	3.22E-02	1.54E-02	5.51E-03	3.57E-03	5.50E-04	1.30E-04	3.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
370522.53	3758282.84	3.60E-04	1.20E-02	2.24E-02	1.73E-02	1.04E-02	4.35E-03	2.03E-03	7.20E-04	2.30E-04	5.00E-05	2.60E-04	0.00E+00	0.00E+00	0.00E+00
370558.15	3755458.94	8.40E-04	1.44E-02	2.95E-02	3.14E-02	1.51E-02	5.52E-03	3.51E-03	5.30E-04	1.30E-04	3.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
370622.42	3758281.49	3.70E-04	1.27E-02	2.34E-02	1.74E-02	1.03E-02	4.39E-03	2.15E-03	7.90E-04	2.30E-04	5.00E-05	2.70E-04	0.00E+00	0.00E+00	0.00E+00
370624.63	3755467.51	8.40E-04	1.42E-02	2.92E-02	3.10E-02	1.51E-02	5.55E-03	3.47E-03	5.30E-04	1.40E-04	3.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
370691.11	3755476.08	8.30E-04	1.40E-02	2.88E-02	3.04E-02	1.50E-02	5.56E-03	3.42E-03	5.20E-04	1.40E-04	3.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
370722.31	3758280.14	3.80E-04	1.35E-02	2.43E-02	1.74E-02	1.03E-02	4.46E-03	2.32E-03	8.70E-04	2.40E-04	5.00E-05	2.80E-04	0.00E+00	0.00E+00	0.00E+00
370757.38	3755493.32	8.30E-04	1.39E-02	2.86E-02	3.02E-02	1.51E-02	5.62E-03	3.38E-03	5.40E-04	1.50E-04	3.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
370792.87	3757995.38	6.10E-04	2.04E-02	3.58E-02	2.51E-02	1.42E-02	6.04E-03	3.49E-03	1.19E-03	4.10E-04	8.00E-05	4.70E-04	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_ROG_Annual.xlsx — Annual ROG Summary by Source

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Gasoline Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
370797.01	3758107.02	5.10E-04	1.77E-02	3.10E-02	2.16E-02	1.24E-02	5.39E-03	3.03E-03	1.09E-03	3.30E-04	7.00E-05	3.80E-04	0.00E+00	0.00E+00	0.00E+00
370798.36	3758194.12	4.40E-04	1.58E-02	2.78E-02	1.94E-02	1.13E-02	4.93E-03	2.74E-03	1.01E-03	2.80E-04	6.00E-05	3.20E-04	0.00E+00	0.00E+00	0.00E+00
370798.51	3757946.46	6.60E-04	2.19E-02	3.84E-02	2.69E-02	1.51E-02	6.40E-03	3.79E-03	1.26E-03	4.60E-04	9.00E-05	5.30E-04	0.00E+00	0.00E+00	0.00E+00
370799.71	3758281.23	3.90E-04	1.40E-02	2.47E-02	1.75E-02	1.02E-02	4.51E-03	2.47E-03	9.30E-04	2.50E-04	5.00E-05	2.80E-04	0.00E+00	0.00E+00	0.00E+00
370807.53	3755529.02	8.30E-04	1.40E-02	2.90E-02	3.06E-02	1.56E-02	5.76E-03	3.37E-03	5.50E-04	1.60E-04	3.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
370818.52	3757901.47	7.20E-04	2.37E-02	4.14E-02	2.88E-02	1.60E-02	6.80E-03	4.18E-03	1.37E-03	5.20E-04	1.10E-04	5.90E-04	0.00E+00	0.00E+00	0.00E+00
370851.08	3757864.53	7.90E-04	2.59E-02	4.46E-02	3.07E-02	1.70E-02	7.21E-03	4.64E-03	1.49E-03	5.80E-04	1.20E-04	6.70E-04	0.00E+00	0.00E+00	0.00E+00
370854.34	3755560.20	8.30E-04	1.40E-02	2.92E-02	3.09E-02	1.59E-02	5.87E-03	3.34E-03	5.50E-04	1.60E-04	3.00E-05	1.90E-04	0.00E+00	0.00E+00	0.00E+00
370901.14	3755591.38	8.30E-04	1.40E-02	2.94E-02	3.11E-02	1.61E-02	5.91E-03	3.28E-03	5.60E-04	1.70E-04	3.00E-05	2.00E-04	0.00E+00	0.00E+00	0.00E+00
370908.58	3757858.61	8.10E-04	2.78E-02	4.68E-02	3.12E-02	1.73E-02	7.44E-03	5.03E-03	1.63E-03	6.10E-04	1.20E-04	7.00E-04	0.00E+00	0.00E+00	0.00E+00
370929.68	3755646.61	8.50E-04	1.44E-02	3.05E-02	3.25E-02	1.68E-02	6.13E-03	3.34E-03	5.70E-04	1.80E-04	4.00E-05	2.10E-04	0.00E+00	0.00E+00	0.00E+00
370932.48	3755705.67	8.90E-04	1.51E-02	3.23E-02	3.44E-02	1.78E-02	6.43E-03	3.47E-03	6.00E-04	2.00E-04	4.00E-05	2.30E-04	0.00E+00	0.00E+00	0.00E+00
370959.17	3757378.41	2.86E-03	9.09E-02	1.37E-01	9.72E-02	5.18E-02	2.10E-02	5.20E-02	3.26E-03	1.48E-02	3.00E-03	1.69E-02	0.00E+00	0.00E+00	0.00E+00
370959.96	3757296.13	3.69E-03	8.93E-02	1.51E-01	1.22E-01	6.48E-02	2.42E-02	4.50E-01	3.16E-03	2.00E-02	4.05E-03	2.28E-02	0.00E+00	0.00E+00	0.00E+00
370960.75	3757213.81	4.70E-03	9.99E-02	1.80E-01	1.61E-01	8.53E-02	2.96E-02	3.42E-02	3.42E-03	2.70E-02	5.48E-03	3.08E-02	0.00E+00	0.00E+00	0.00E+00
370961.54	3757131.59	5.83E-03	1.18E-01	2.21E-01	2.20E-01	1.12E-01	3.44E-02	2.46E-02	3.60E-03	1.70E-02	3.45E-03	1.94E-02	0.00E+00	0.00E+00	0.00E+00
370962.33	3757049.29	6.94E-03	1.64E-01	3.07E-01	3.18E-01	1.45E-01	3.76E-02	2.45E-02	3.93E-03	1.69E-02	3.41E-03	1.92E-02	0.00E+00	0.00E+00	0.00E+00
370963.12	3756966.90	7.81E-03	1.97E-01	5.18E-01	5.36E-01	1.77E-01	3.74E-02	2.55E-02	4.25E-03	1.45E-02	2.94E-03	1.65E-02	0.00E+00	0.00E+00	0.00E+00
370966.07	3757852.69	8.40E-04	3.01E-02	4.92E-02	3.18E-02	1.78E-02	7.68E-03	5.47E-03	1.79E-03	6.40E-04	1.30E-04	7.30E-04	0.00E+00	0.00E+00	0.00E+00
370968.09	3757808.70	9.20E-04	3.24E-02	5.29E-02	3.43E-02	1.89E-02	8.15E-03	5.98E-03	1.91E-03	7.30E-04	1.50E-04	8.30E-04	0.00E+00	0.00E+00	0.00E+00
370983.75	3755705.22	8.70E-04	1.48E-02	3.16E-02	3.36E-02	1.74E-02	6.29E-03	3.33E-03	5.90E-04	2.00E-04	4.00E-05	2.30E-04	0.00E+00	0.00E+00	0.00E+00
370986.42	3755628.02	8.20E-04	1.38E-02	2.93E-02	3.10E-02	1.61E-02	5.90E-03	3.14E-03	5.60E-04	1.80E-04	4.00E-05	2.10E-04	0.00E+00	0.00E+00	0.00E+00
370989.10	3755550.81	7.70E-04	1.30E-02	2.73E-02	2.88E-02	1.50E-02	5.54E-03	2.96E-03	5.30E-04	1.70E-04	3.00E-05	1.90E-04	0.00E+00	0.00E+00	0.00E+00
370991.77	3755473.61	2.82E-03	1.14E-02	2.55E-02	1.40E-02	5.20E-03	1.83E-03	5.00E-04	8.50E-04	1.50E-04	3.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
371017.44	3757371.98	2.92E-03	9.27E-02	1.44E-01	9.98E-02	5.34E-02	2.14E-02	8.42E-02	3.55E-03	2.27E-02	4.60E-03	2.59E-02	0.00E+00	0.00E+00	0.00E+00
371039.92	3757778.95	1.00E-03	3.76E-02	5.91E-02	3.67E-02	2.03E-02	8.77E-03	6.96E-03	2.24E-03	8.10E-04	1.60E-04	9.30E-04	0.00E+00	0.00E+00	0.00E+00
371061.56	3756965.39	1.11E-02	1.60E-01	3.96E-01	5.09E-01	1.91E-01	3.23E-02	2.30E-02	4.24E-03	2.24E-02	4.54E-03	2.55E-02	0.00E+00	0.00E+00	0.00E+00
371064.57	3755405.04	6.80E-04	1.13E-02	2.34E-02	2.44E-02	1.28E-02	4.79E-03	2.57E-03	4.70E-04	1.40E-04	3.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
371078.64	3757842.57	8.90E-04	3.57E-02	5.48E-02	3.32E-02	1.86E-02	8.19E-03	6.45E-03	2.20E-03	6.60E-04	1.30E-04	7.50E-04	0.00E+00	0.00E+00	0.00E+00
371116.65	3757378.24	2.84E-03	9.40E-02	1.65E-01	9.96E-02	5.33E-02	2.14E-02	5.74E-02	4.14E-03	1.48E-02	2.99E-03	1.68E-02	0.00E+00	0.00E+00	0.00E+00
371117.35	3757906.19	8.10E-04	3.34E-02	5.05E-02	3.03E-02	1.72E-02	7.70E-03	6.05E-03	2.17E-03	5.50E-04	1.10E-04	6.30E-04	0.00E+00	0.00E+00	0.00E+00
371160.25	3755403.96	6.50E-04	1.09E-02	2.26E-02	2.35E-02	1.23E-02	4.61E-03	2.40E-03	4.60E-04	1.40E-04	3.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
371160.00	3756963.88	2.11E-02	1.55E-01	3.37E-01	6.12E-01	2.80E-01	2.79E-02	2.01E-02	4.01E-03	1.04E-02	2.11E-03	1.19E-02	0.00E+00	0.00E+00	0.00E+00
371173.76	3757954.26	7.60E-04	3.20E-02	4.79E-02	2.86E-02	1.63E-02	7.47E-03	5.99E-03	2.24E-03	4.80E-04	1.00E-04	5.50E-04	0.00E+00	0.00E+00	0.00E+00
371174.47	3757986.09	7.20E-04	2.97E-02	4.51E-02	2.73E-02	1.57E-02	7.18E-03	5.64E-03	2.13E-03	4.50E-04	9.00E-05	5.10E-04	0.00E+00	0.00E+00	0.00E+00
371208.04	3757297.08	3.57E-03	1.13E-01	1.69E-01	1.19E-01	6.15E-02	2.17E-02	3.48E-02	4.33E-03	1.00E-02	2.03E-03	1.14E-02	0.00E+00	0.00E+00	0.00E+00
371208.86	3757379.78	2.82E-03	1.11E-02	1.91E-01	1.00E-01	5.31E-02	2.16E-02	4.02E-02	4.50E-03	8.51E-03	1.72E-03	9.80E-03	0.00E+00	0.00E+00	0.00E+00
371210.97	3757210.00	4.80E-03	1.10E-01	1.72E-01	1.54E-01	7.67E-02	2.39E-02	2.18E-02	4.17E-03	1.11E-02	2.24E-03	1.26E-02	0.00E+00	0.00E+00	0.00E+00
371243.87	3757985.25	7.50E-04	3.14E-02	4.67E-02	2.78E-02	1.60E-02	7.43E-03	6.13E-03	2.38E-03	4.40E-04	9.00E-05	5.00E-04	0.00E+00	0.00E+00	0.00E+00
371255.94	3755402.89	6.30E-04	1.05E-02	2.19E-02	2.26E-02	1.18E-02	4.42E-03	2.25E-03	4.50E-04	1.40E-04	3.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
371258.45	3756962.36	5.13E-02	2.25E-01	3.15E-01	7.60E-01	3.85E-01	2.38E-02	1.70E-02	3.50E-03	6.34E-03	1.28E-03	7.22E-03	0.00E+00	0.00E+00	0.00E+00
371275.69	3757208.66	4.84E-03	1.10E-01	1.72E-01	1.51E-01	7.40E-02	2.29E-02	2.08E-02	4.47E-03	8.22E-03	1.67E-03	9.37E-03	0.00E+00	0.00E+00	0.00E+00
371313.27	3757984.41	7.70E-04	3.30E-02	4.83E-02	2.84E-02	1.63E-02	7.69E-03	6.61E-03	2.63E-03	4.30E-04	9.00E-05	4.90E-04	0.00E+00	0.00E+00	0.00E+00
371348.54	3758024.62	7.30E-04	3.00E-02	4.51E-02	2.70E-02	1.56E-02	7.38E-03	6.10E-03	2.45E-03	3.90E-04	8.00E-05	4.50E-04	0.00E+00	0.00E+00	0.00E+00
371351.62	3755401.81	6.10E-04	1.01E-02	2.12E-02

Pollutant: ROG, Emissions Source: Gasoline Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
373374.73	3757597.71	1.35E-03	4.07E-02	2.64E-01	7.32E-01	9.65E-01	7.44E-01	7.07E-03	2.68E-03	3.80E-04	8.00E-05	4.40E-04	0.00E+00	0.00E+00	0.00E+00
373374.83	3756432.37	3.84E-03	1.07E-02	2.22E-02	1.97E-02	1.32E-02	7.17E-03	1.72E-03	4.40E-04	1.10E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
373375.60	3757685.31	1.28E-03	4.35E-02	2.26E-01	4.58E-01	5.89E-01	4.43E-01	7.49E-03	3.00E-03	3.80E-04	8.00E-05	4.40E-04	0.00E+00	0.00E+00	0.00E+00
373393.43	3757684.85	1.27E-03	4.26E-02	2.18E-01	4.20E-01	5.36E-01	3.91E-01	7.37E-03	2.94E-03	3.80E-04	8.00E-05	4.30E-04	0.00E+00	0.00E+00	0.00E+00
373394.30	3757744.19	1.22E-03	4.38E-02	1.87E-01	2.96E-01	3.81E-01	2.54E-01	7.58E-03	3.10E-03	3.80E-04	8.00E-05	4.30E-04	0.00E+00	0.00E+00	0.00E+00
367047.63	3761097.01	1.20E-04	2.34E-03	4.28E-03	3.96E-03	2.25E-03	9.60E-04	4.90E-04	1.20E-04	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
370737.54	3762942.92	4.00E-05	9.90E-04	2.19E-03	1.82E-03	1.21E-03	5.60E-04	1.70E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371031.93	3758057.86	6.00E-04	2.29E-02	3.72E-02	2.39E-02	1.38E-02	6.21E-03	4.24E-03	1.56E-03	3.90E-04	8.00E-05	4.50E-04	0.00E+00	0.00E+00	0.00E+00
371034.38	3758338.88	3.90E-04	1.32E-02	2.20E-02	1.49E-02	8.91E-03	4.17E-03	2.58E-03	9.80E-04	2.10E-04	4.00E-05	2.40E-04	0.00E+00	0.00E+00	0.00E+00
371091.65	3754274.94	3.40E-04	5.72E-03	1.09E-02	1.07E-02	5.41E-03	2.08E-03	1.29E-03	2.50E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
371165.78	3758547.83	3.20E-04	9.56E-03	1.71E-02	1.19E-02	7.42E-03	3.49E-03	1.77E-03	6.40E-04	1.60E-04	3.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
372241.00	3757383.00	3.10E-03	1.40E-01	2.79E-01	8.78E-02	4.85E-02	2.28E-02	1.48E-02	1.01E-02	1.07E-03	2.20E-04	1.22E-03	0.00E+00	0.00E+00	0.00E+00
372703.01	3761799.64	7.00E-05	1.52E-03	2.80E-03	2.06E-03	1.38E-03	6.60E-04	2.80E-04	9.00E-05	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
374194.97	3754806.86	1.60E-04	2.58E-03	6.18E-03	5.49E-03	3.40E-03	1.63E-03	4.90E-04	1.40E-04	4.00E-05	1.00E-05	4.40E-05	0.00E+00	0.00E+00	0.00E+00
374697.43	3760305.50	1.50E-04	3.72E-03	6.44E-03	4.70E-03	3.10E-03	1.55E-03	6.80E-04	2.30E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
375423.74	3758805.14	4.40E-04	1.29E-02	2.49E-02	1.81E-02	1.39E-02	7.16E-03	2.38E-03	8.70E-04	1.50E-04	3.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
375433.42	3757541.59	6.40E-04	1.03E-02	2.43E-02	2.27E-02	1.75E-02	1.01E-02	1.97E-03	5.90E-04	1.30E-04	3.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
378090.06	3758535.33	3.10E-04	6.21E-03	1.26E-02	1.06E-02	7.84E-03	4.19E-03	1.20E-03	3.90E-04	8.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
368494.88	3756671.28	2.99E-03	4.62E-02	7.46E-02	7.55E-02	2.94E-02	1.01E-02	1.10E-02	1.33E-03	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
370394.80	3756845.73	1.52E-02	4.22E-01	7.93E-01	1.49E+00	9.97E-01	2.52E-01	1.08E-01	1.19E-02	8.80E-04	1.80E-04	1.01E-03	0.00E+00	0.00E+00	0.00E+00
368983.23	3754581.57	5.20E-04	8.80E-03	1.64E-02	1.77E-02	8.25E-03	2.97E-03	2.19E-03	3.40E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
369216.41	3758422.45	4.00E-04	7.96E-03	1.49E-02	1.53E-02	8.69E-03	3.35E-03	1.68E-03	3.60E-04	1.00E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
369532.57	3753391.61	1.06E-03	1.77E-02	3.36E-02	3.50E-02	1.47E-02	4.96E-03	3.05E-03	6.00E-04	9.00E-05	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
369574.04	3758166.39	5.10E-04	9.44E-03	2.00E-02	2.00E-02	1.10E-02	4.22E-03	2.09E-03	4.40E-04	1.40E-04	3.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
369581.37	3758516.07	3.80E-04	7.70E-03	1.43E-02	1.33E-02	7.08E-03	2.82E-03	1.49E-03	3.60E-04	1.10E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
369830.08	3755394.84	1.01E-03	1.68E-02	3.19E-02	3.40E-02	1.58E-02	5.66E-03	4.57E-03	6.50E-04	9.00E-05	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
370114.12	3758186.53	4.30E-04	1.10E-02	2.16E-02	1.97E-02	1.19E-02	4.77E-03	2.07E-03	5.60E-04	2.00E-04	4.00E-05	2.30E-04	0.00E+00	0.00E+00	0.00E+00
371021.69	3757820.60	9.10E-04	3.41E-02	5.41E-02	3.40E-02	1.89E-02	8.21E-03	6.25E-03	2.05E-03	7.10E-04	1.40E-04	8.10E-04	0.00E+00	0.00E+00	0.00E+00
366809.77	3757837.27	5.70E-04	9.56E-03	1.64E-02	1.71E-02	7.86E-03	2.87E-03	2.21E-03	3.30E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
366843.26	3757860.52	5.60E-04	9.46E-03	1.62E-02	1.69E-02	7.82E-03	2.86E-03	2.18E-03	3.30E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
366900.00	3758500.00	3.40E-04	6.21E-03	1.10E-02	1.11E-02	5.44E-03	2.10E-03	1.35E-03	2.40E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
366900.00	3762500.00	7.00E-05	1.45E-03	2.83E-03	2.60E-03	1.60E-03	7.20E-04	2.90E-04	8.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
366900.00	3763500.00	5.00E-05	1.07E-03	2.14E-03	1.95E-03	1.24E-03	5.70E-04	2.10E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
366900.00	3764500.00	4.00E-05	8.20E-04	1.53E-03	1.36E-03	8.50E-04	4.00E-04	1.70E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
366982.41	3757958.65	5.30E-04	9.13E-03	1.58E-02	1.64E-02	7.71E-03	2.84E-03	2.08E-03	3.20E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
367163.97	3758028.86	5.10E-04	9.04E-03	1.58E-02	1.63E-02	7.75E-03	2.89E-03	2.04E-03	3.30E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
367275.38	3757999.92	5.30E-04	9.44E-03	1.65E-02	1.70E-02	8.12E-03	3.03E-03	2.13E-03	3.40E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
367395.04	3758065.94	5.10E-04	9.14E-03	1.59E-02	1.65E-02	7.92E-03	2.95E-03	2.05E-03	3.30E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
367880.40	3758145.84	5.20E-04	9.61E-03	1.70E-02	1.68E-02	8.14E-03	3.11E-03	2.14E-03	3.70E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
367900.00	3761500.00	8.00E-05	1.86E-03	3.68E-03	3.31E-03	2.06E-03	9.20E-04	3.70E-04	1.10E-04	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
367900.00	3762500.00	6.00E-05	1.33E-03	2.70E-03	2.42E-03	1.55E-03	7.20E-04	2.60E-04	8.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
367900.00	3764500.00	4.00E-05	8.40E-04	1.71E-03	1.50E-03	9.60E-04	4.40E-04	1.60E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368068.97	3758068.94	5.80E-04	1.07E-02	1.90E-02	1.87E-02	8.99E-03	3.42E-03	2.38E-03	4.10E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
368182.48	3758015.85	6.30E-04	1.16E-02	2.04E-02	2.06E-02	1.01E-02	3.80E-03	2.55E-03	4.30E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
368416.83	3757988.39	6.60E-04	1.22E-02	2.17E-02	2.15E-02	1.06E-02	4.05E-03	2.71E-03	4.70E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
368577.94	3757979.23	7.20E-04	1.34E-02	2.37E-02	2.40E-02	1.19E-02	4.46E-03	2.86E-03	4.90E-04	8.00E-05	2.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
368764.68	3758079.93	6.50E-04	1.24E-02	2.20E-02	2.19E-02	1.10E-02	4.17E-03	2.65E-03	4.80E-04	8.00E-05	2.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
368900.00	3754500.00	4.90E-04	8.32E-03	1.55E-02	1.68E-02	7.85E-03	2.83E-03	2.08E-03	3.20E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
368900.00	3759500.00	1.80E-04	4.06E-03	7.36E-03	6.45E-03	3.52E-03	1.50E-03	8.00E-04	2.20E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
368900.00	3761500.00	8.00E-05	1.78E-03	3.66E-03	3.24E-03	2.08E-03	9.60E-04	3.40E-04	1.00E-04	3.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
368900.00	3762500.00	6.00E-05	1.32E-03	2.73E-03	2.40E-03	1.52E-03	7.00E-04	2.50E-04	8.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
368900.00	3763500.00	5.00E-05	1.03E-03	2.14E-03	1.88E-03	1.19E-03	5.50E-04	2.00E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
368900.00	3764500.00	4.00E-05	8.30E-04	1.73E-03	1.53E-03	9.70E-04	4.50E-04	1.60E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368944.10	3758186.12	6.00E-04	1.14E-02	2.06E-02	2.06E-02	1.06E-02	4.05E-03	2.51E-03	4.70E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369206.25	3758147.26	5.60E-04	1.12E-02	2.07E-02	2.11E-02	1.17E-02	4.48E-03	2.46E-03	4.90E-04	1.10E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
369268.49	3758066.34	6.00E-04	1.22E-02	2.25E-02	2.31E-02	1.28E-02	4.88E-03	2.68E-03	5.30E-04	1.20E-04	2.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
369333.85	3757999.43	6.40E-04	1.34E-02	2.48E-02	2.56E-02	1.42E-02	5.39E-03	2.89E-03	5.70E-04	1.30E-04	3.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
369425.60	3758641.99	3.30E-04	6.77E-03	1.26E-02	1.19E-02	6.44E-03	2.55E-03	1.34E-03	3.20E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
369599.53	3758634.67	3.40E-04	7.27E-03	1.33E-02	1.20E-02	6.42E-03	2.61E-03	1.39E-03	3.50E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
369775.29	3758632.83	3.40E-04	7.57E-03	1.37E-02	1.18E-02	6.53E-03	2.71E-03	1.50E-03	3.90E-04	1.00E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
369834.01	3758329.23	4.30E-04	9.80E-03	1.90E-02	1.78E-02	1.03E-02	4.04E-03	1.90E-03	4.80E-04	1.50E-04	3.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
369900.00	3754500.00	4.30E-04	7.20E-03	1.41E-02	1.52E-02	7.71E-03	2.90E-03	1.84E-03	2.80E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
369900.00	3758500.00	3.50E-04	8.54E-03	1.63E-02	1.47E-02	8.65E-03	3.51E-03	1.63E-03	4.40E-04	1.30E-04	3.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
369900.00	3759500.00	1.60E-04	4.15E-03	7.78E-03	6.47E-03	4.12E-03	1.88E-03	8.60E-04	2.70E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Gasoline Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
369900.00	3761500.00	7.00E-05	1.64E-03	3.56E-03	3.15E-03	2.06E-03	9.40E-04	3.10E-04	1.00E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
369900.00	3762500.00	5.00E-05	1.20E-03	2.63E-03	2.32E-03	1.51E-03	6.90E-04	2.20E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369900.00	3764500.00	3.00E-05	7.60E-04	1.64E-03	1.44E-03	9.30E-04	4.30E-04	1.40E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370006.10	3758331.16	3.70E-04	8.95E-03	1.67E-02	1.49E-02	8.91E-03	3.65E-03	1.86E-03	4.90E-04	1.50E-04	3.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
370183.69	3758338.49	3.30E-04	9.34E-03	1.75E-02	1.49E-02	9.13E-03	3.77E-03	1.69E-03	5.20E-04	1.50E-04	3.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
370425.35	3758336.66	3.40E-04	1.09E-02	2.06E-02	1.64E-02	9.92E-03	4.12E-03	1.86E-03	6.50E-04	2.00E-04	4.00E-05	2.30E-04	0.00E+00	0.00E+00	0.00E+00
370701.79	3758334.82	3.50E-04	1.25E-02	2.25E-02	1.64E-02	9.67E-03	4.21E-03	2.16E-03	8.10E-04	2.20E-04	4.00E-05	2.50E-04	0.00E+00	0.00E+00	0.00E+00
370780.52	3758327.50	3.70E-04	1.30E-02	2.33E-02	1.66E-02	9.76E-03	4.30E-03	2.30E-03	8.80E-04	2.30E-04	5.00E-05	2.60E-04	0.00E+00	0.00E+00	0.00E+00
370900.00	3759500.00	1.30E-04	3.32E-03	6.73E-03	5.47E-03	3.92E-03	1.95E-03	6.10E-04	2.10E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
370900.00	3760500.00	8.00E-05	2.00E-03	4.14E-03	3.31E-03	2.23E-03	1.08E-03	3.70E-04	1.20E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
370900.00	3762500.00	5.00E-05	1.11E-03	2.47E-03	2.02E-03	1.34E-03	6.30E-04	1.90E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370900.00	3763500.00	4.00E-05	8.70E-04	1.92E-03	1.57E-03	1.04E-03	4.90E-04	1.50E-04	5.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370900.00	3764500.00	3.00E-05	7.10E-04	1.55E-03	1.27E-03	8.40E-04	3.90E-04	1.20E-04	4.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371295.29	3758036.94	7.00E-04	2.83E-02	4.31E-02	2.62E-02	1.52E-02	7.10E-03	5.69E-03	2.25E-03	3.90E-04	8.00E-05	4.40E-04	0.00E+00	0.00E+00	0.00E+00
371421.46	3758118.19	6.50E-04	2.49E-02	3.93E-02	2.43E-02	1.43E-02	6.67E-03	4.78E-03	1.94E-03	3.20E-04	7.00E-05	3.70E-04	0.00E+00	0.00E+00	0.00E+00
371550.51	3758209.09	5.90E-04	2.22E-02	3.62E-02	2.24E-02	1.33E-02	6.13E-03	3.85E-03	1.57E-03	2.70E-04	5.00E-05	3.10E-04	0.00E+00	0.00E+00	0.00E+00
371685.28	3758299.81	5.40E-04	1.96E-02	3.35E-02	2.10E-02	1.29E-02	6.00E-03	3.42E-03	1.39E-03	2.30E-04	5.00E-05	2.60E-04	0.00E+00	0.00E+00	0.00E+00
371754.11	3758291.20	5.50E-04	2.06E-02	3.51E-02	2.17E-02	1.35E-02	6.41E-03	3.68E-03	1.51E-03	2.30E-04	5.00E-05	2.70E-04	0.00E+00	0.00E+00	0.00E+00
371807.64	3758213.78	6.20E-04	2.51E-02	4.11E-02	2.42E-02	1.49E-02	7.15E-03	4.56E-03	1.93E-03	2.70E-04	5.00E-05	3.10E-04	0.00E+00	0.00E+00	0.00E+00
371874.55	3758164.07	6.70E-04	2.93E-02	4.65E-02	2.64E-02	1.62E-02	7.87E-03	5.40E-03	2.34E-03	3.00E-04	6.00E-05	3.40E-04	0.00E+00	0.00E+00	0.00E+00
371900.00	3758500.00	4.30E-04	1.48E-02	2.66E-02	1.76E-02	1.17E-02	5.66E-03	2.73E-03	1.08E-03	1.70E-04	4.00E-05	2.00E-04	0.00E+00	0.00E+00	0.00E+00
371900.00	3759500.00	1.80E-04	5.01E-03	9.81E-03	7.10E-03	4.70E-03	2.27E-03	8.80E-04	3.20E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
371900.00	3760500.00	5.00E-05	1.11E-03	2.05E-03	1.55E-03	1.06E-03	5.10E-04	2.00E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371900.00	3761500.00	4.00E-05	9.17E-04	1.98E-03	1.52E-03	1.03E-03	4.80E-04	1.60E-04	6.00E-05	3.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371933.81	3758104.81	7.40E-04	3.57E-02	5.45E-02	2.93E-02	1.78E-02	8.78E-03	6.58E-03	2.95E-03	3.50E-04	7.00E-05	4.00E-04	0.00E+00	0.00E+00	0.00E+00
372241.00	3757883.00	1.13E-03	1.30E-01	1.48E-01	5.44E-02	2.89E-02	1.69E-02	2.18E-02	1.19E-02	5.90E-04	1.20E-04	6.70E-04	0.00E+00	0.00E+00	0.00E+00
372241.00	3757983.00	9.60E-04	7.06E-02	9.33E-02	4.09E-02	2.52E-02	1.35E-02	1.32E-02	6.53E-03	4.80E-04	1.00E-04	5.50E-04	0.00E+00	0.00E+00	0.00E+00
372341.00	3757883.00	1.15E-03	1.36E-01	1.52E-01	5.69E-02	3.16E-02	1.80E-02	2.13E-02	1.12E-02	5.80E-04	1.20E-04	6.60E-04	0.00E+00	0.00E+00	0.00E+00
372341.00	3757983.00	9.80E-04	7.67E-02	9.85E-02	4.27E-02	2.74E-02	1.46E-02	1.39E-02	6.85E-03	4.70E-04	1.00E-04	5.40E-04	0.00E+00	0.00E+00	0.00E+00
372900.00	3753500.00	1.50E-04	2.68E-03	5.81E-03	5.44E-03	3.02E-03	1.28E-03	5.30E-04	1.20E-04	3.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3754500.00	2.40E-04	3.88E-03	8.49E-03	7.81E-03	4.37E-03	1.92E-03	7.70E-04	1.90E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3759500.00	2.00E-04	5.60E-03	1.09E-02	7.64E-03	5.00E-03	2.40E-03	1.03E-03	3.50E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3760500.00	1.20E-04	2.99E-03	5.99E-03	4.34E-03	2.85E-03	1.37E-03	5.30E-04	1.80E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3761500.00	7.00E-05	1.74E-03	3.31E-03	2.45E-03	1.65E-03	8.00E-04	3.20E-04	1.10E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3762500.00	4.00E-05	9.40E-04	1.69E-03	1.29E-03	8.60E-04	4.30E-04	1.80E-04	6.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373541.00	3757883.00	1.12E-03	3.82E-02	1.38E-01	1.67E-01	1.98E-01	1.29E-01	6.72E-03	2.70E-03	3.40E-04	7.00E-05	3.80E-04	0.00E+00	0.00E+00	0.00E+00
373541.00	3757983.00	9.50E-04	3.87E-02	1.11E-01	1.01E-01	1.11E-01	6.37E-02	6.83E-03	2.81E-03	3.30E-04	7.00E-05	3.60E-04	0.00E+00	0.00E+00	0.00E+00
373541.00	3757983.00	9.60E-04	3.80E-02	8.90E-02	6.55E-02	6.47E-02	3.47E-02	6.73E-03	2.80E-03	3.10E-04	6.00E-05	3.60E-04	0.00E+00	0.00E+00	0.00E+00
373641.00	3756983.00	1.19E-03	1.35E-02	3.67E-02	3.54E-02	2.57E-02	1.84E-02	2.77E-03	7.30E-04	2.00E-04	4.00E-05	2.20E-04	0.00E+00	0.00E+00	0.00E+00
373641.00	3757083.00	1.20E-03	1.53E-02	4.43E-02	4.43E-02	3.28E-02	2.75E-02	3.11E-03	8.40E-04	2.20E-04	4.00E-05	2.50E-04	0.00E+00	0.00E+00	0.00E+00
373641.00	3757183.00	1.21E-03	1.74E-02	5.72E-02	6.57E-02	5.37E-02	5.13E-02	3.47E-03	9.70E-04	2.50E-04	5.00E-05	2.80E-04	0.00E+00	0.00E+00	0.00E+00
373641.00	3757283.00	1.23E-03	2.01E-02	7.69E-02	1.11E-01	1.03E-01	1.06E-01	3.95E-03	1.16E-03	2.70E-04	5.00E-05	3.10E-04	0.00E+00	0.00E+00	0.00E+00
373641.00	3757383.00	1.23E-03	2.33E-02	1.01E-01	1.52E-01	1.42E-01	1.26E-01	4.49E-03	1.40E-03	2.90E-04	6.00E-05	3.30E-04	0.00E+00	0.00E+00	0.00E+00
373641.00	3757483.00	1.22E-03	2.68E-02	1.28E-01	1.75E-01	1.64E-01	1.10E-01	5.02E-03	1.67E-03	3.10E-04	6.00E-05	3.50E-04	0.00E+00	0.00E+00	0.00E+00
373641.00	3757583.00	1

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Gasoline Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
373541.00	3756983.00	1.24E-03	1.45E-02	4.20E-02	4.02E-02	3.01E-02	2.24E-02	3.07E-03	8.30E-04	2.10E-04	4.00E-05	2.40E-04	0.00E+00	0.00E+00	0.00E+00
373541.00	3757083.00	1.25E-03	1.62E-02	5.02E-02	5.01E-02	3.78E-02	3.74E-02	3.34E-03	9.10E-04	2.40E-04	5.00E-05	2.70E-04	0.00E+00	0.00E+00	0.00E+00
373541.00	3757183.00	1.28E-03	1.85E-02	6.84E-02	7.95E-02	6.65E-02	7.79E-02	3.72E-03	1.04E-03	2.60E-04	5.00E-05	3.00E-04	0.00E+00	0.00E+00	0.00E+00
373541.00	3757283.00	1.30E-03	2.15E-02	9.34E-02	1.59E-01	1.59E-01	2.20E-01	4.26E-03	1.24E-03	2.90E-04	6.00E-05	3.30E-04	0.00E+00	0.00E+00	0.00E+00
373541.00	3757383.00	1.30E-03	2.50E-02	1.23E-01	2.08E-01	1.97E-01	2.06E-01	4.84E-03	1.51E-03	3.10E-04	6.00E-05	3.50E-04	0.00E+00	0.00E+00	0.00E+00
373541.00	3757483.00	1.29E-03	2.96E-02	1.67E-01	2.41E-01	2.23E-01	1.42E-01	5.51E-03	1.85E-03	3.30E-04	7.00E-05	3.80E-04	0.00E+00	0.00E+00	0.00E+00
373541.00	3757583.00	1.25E-03	3.34E-02	1.78E-01	2.73E-01	3.00E-01	1.99E-01	6.01E-03	2.18E-03	3.40E-04	7.00E-05	3.90E-04	0.00E+00	0.00E+00	0.00E+00
373541.00	3757683.00	1.19E-03	3.63E-02	1.63E-01	2.40E-01	2.86E-01	1.97E-01	6.41E-03	2.47E-03	3.40E-04	7.00E-05	3.90E-04	0.00E+00	0.00E+00	0.00E+00
366455.27	3763213.67	6.00E-05	1.21E-03	2.37E-03	2.19E-03	1.36E-03	6.20E-04	2.50E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
366669.62	3763342.53	5.00E-05	1.14E-03	2.26E-03	2.08E-03	1.30E-03	6.00E-04	2.30E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
366671.31	3762769.21	6.00E-05	1.17E-03	2.65E-03	2.44E-03	1.50E-03	6.80E-04	2.80E-04	8.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
367494.53	3758314.82	4.30E-04	7.87E-03	1.39E-02	1.40E-02	6.87E-03	2.63E-03	1.76E-03	3.10E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
367575.16	3764900.80	4.00E-05	7.80E-04	1.58E-03	1.39E-03	8.90E-04	4.10E-04	1.50E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367638.49	3757975.16	5.90E-04	1.04E-02	1.82E-02	1.88E-02	9.04E-03	3.36E-03	2.33E-03	3.70E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
367728.62	3761967.19	7.00E-05	1.59E-03	3.18E-03	2.88E-03	1.81E-03	8.20E-04	3.10E-04	9.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
367787.59	3758292.62	4.60E-04	8.47E-03	1.50E-02	1.47E-02	7.17E-03	2.77E-03	1.90E-03	3.30E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
367831.34	3763245.91	5.00E-05	1.10E-03	2.22E-03	1.98E-03	1.27E-03	5.90E-04	2.10E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
367900.00	3758500.00	3.80E-04	7.08E-03	1.27E-02	1.28E-02	6.68E-03	2.59E-03	1.56E-03	2.90E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
367926.08	3763311.16	5.00E-05	1.08E-03	2.19E-03	1.94E-03	1.24E-03	5.80E-04	2.10E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
367964.98	3758232.97	5.00E-04	9.14E-03	1.62E-02	1.60E-02	7.88E-03	3.03E-03	2.05E-03	3.60E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
367976.37	3763336.74	5.00E-05	1.07E-03	2.18E-03	1.93E-03	1.23E-03	5.70E-04	2.10E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
367978.91	3758390.10	4.20E-04	7.91E-03	1.41E-02	1.42E-02	7.28E-03	2.81E-03	1.75E-03	3.20E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
368188.78	3758591.24	3.90E-04	7.23E-03	1.30E-02	1.30E-02	6.58E-03	2.54E-03	1.57E-03	2.90E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
368501.71	3761632.38	8.00E-05	1.49E-03	3.10E-03	1.99E-03	9.20E-04	3.30E-04	1.00E-04	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368505.49	3758571.22	4.20E-04	7.60E-03	1.36E-02	1.34E-02	6.67E-03	2.59E-03	1.69E-03	3.10E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
368673.29	3761677.69	7.00E-05	1.67E-03	3.44E-03	3.06E-03	1.97E-03	9.10E-04	3.20E-04	1.00E-04	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
368693.42	3758359.47	5.10E-04	9.50E-03	1.71E-02	1.69E-02	8.53E-03	3.28E-03	2.08E-03	3.80E-04	8.00E-05	2.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
368842.92	3761590.39	8.00E-05	1.72E-03	3.55E-03	3.15E-03	2.02E-03	9.30E-04	3.30E-04	1.00E-04	3.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
368869.11	3754097.89	3.60E-04	6.10E-03	1.18E-02	1.23E-02	5.76E-03	2.20E-03	1.40E-03	2.30E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
368869.83	3765067.00	3.00E-05	7.40E-04	1.52E-03	1.37E-03	8.60E-04	4.00E-04	1.40E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368969.99	3761647.20	8.00E-05	1.70E-03	3.50E-03	3.09E-03	1.99E-03	9.20E-04	3.20E-04	1.00E-04	2.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
368970.54	3754677.64	5.70E-04	9.53E-03	1.77E-02	1.92E-02	8.92E-03	3.17E-03	2.42E-03	3.70E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
369007.11	3762513.11	6.00E-05	1.32E-03	2.73E-03	2.40E-03	1.52E-03	7.00E-04	2.50E-04	8.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369227.99	3762251.91	6.00E-05	1.41E-03	2.93E-03	2.58E-03	1.64E-03	7.50E-04	2.70E-04	8.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369242.37	3754695.62	5.70E-04	9.52E-03	1.77E-02	1.89E-02	8.74E-03	3.17E-03	2.30E-03	3.50E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
369456.98	3762567.48	6.00E-05	1.26E-03	2.67E-03	2.36E-03	1.51E-03	6.90E-04	2.40E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369504.00	3754702.08	5.91E-04	9.58E-03	1.79E-02	1.89E-02	8.92E-03	3.31E-03	2.35E-03	3.60E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
369767.91	3761150.98	8.00E-05	1.92E-03	4.09E-03	3.63E-03	2.38E-03	1.09E-03	3.60E-04	1.10E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
369809.34	3764567.65	3.00E-05	7.60E-04	1.64E-03	1.44E-03	9.20E-04	4.20E-04	1.40E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369845.18	3754154.97	3.30E-04	5.46E-03	1.08E-02	1.17E-02	5.98E-03	2.25E-03	1.44E-03	2.10E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
369848.41	3753976.49	3.20E-04	5.19E-03	1.03E-02	1.10E-02	5.58E-03	2.09E-03	1.32E-03	2.00E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
370097.88	3760074.31	1.10E-04	2.72E-03	5.56E-03	4.90E-03	3.38E-03	1.58E-03	5.40E-04	1.70E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
370150.95	3754699.75	4.50E-04	7.77E-03	1.56E-02	1.69E-02	8.61E-03	3.19E-03	1.87E-03	3.00E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
370192.96	3758860.70	2.00E-04	6.36E-03	1.14E-02	9.11E-03	5.75E-03	2.54E-03	1.23E-03	4.40E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
370243.17	3759622.98	1.20E-04	3.22E-03	6.64E-03	5.61E-03	3.79E-03	1.75E-03	6.10E-04	2.10E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
370246.20	3754243.12	3.40E-04	5.72E-03	1.15E-02	1.21E-02	6.12E-03	2.29E-03	1.31E-03	2.30E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
370290.74	3759464.60	1.20E-04	3.57E-03	7.27E-03	6.03E-03	4.00E-03	1.85E-03	6.60E-04	2.30E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
370608.78	3762239.97	5.00E-05	1.19E-03	2.66E-03	2.25E-03	1.49E-03	6.90E-04	2.00E-04	7.00E-05	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
370614.80	3762181.53	5.00E-05	1.21E-03	2.71E-03	2.29E-03	1.52E-03	7.10E-04	2.10E-04	7.00E-05	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
370625.96	3761759.08	3.00E-05	8.20E-04	1.82E-03	1.53E-03	1.01E-03	4.70E-04	1.40E-04	5.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370723.56	3763867.78	3.00E-05	8.00E-04	1.77E-03	1.47E-03	9.70E-04	4.50E-04	1.40E-04	5.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370968.58	3759443.63	1.40E-04	3.48E-03	6.99E-03	5.66E-03	4.08E-03	2.03E-03	6.40E-04	2.20E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
371139.14	3758179.30	5.20E-04	1.86E-02	3.04E-02	2.03E-02	1.20E-02	5.53E-03	3.75E-03	1.42E-03	2.90E-04	6.00E-05	3.30E-04	0.00E+00	0.00E+00	0.00E+00
371516.05	3762577.75	5.00E-05	1.14E-03	2.44E-03	1.90E-03	1.28E-03	6.00E-04	1.90E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371721.40	3759371.61	1.90E-04	5.30E-03	1.04E-02	7.72E-03	5.12E-03	2.43E-03	9.20E-04	3.30E-04	8.00E-05	2.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
371973.81	3758892.65	3.00E-04	9.03E-03	1.68E-02	1.18E-02	7.94E-03	3.84E-03	1.63E-03	6.10E-04	1.10E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
372687.72	3759513.01	2.00E-04	5.50E-03	1.06E-02	7.41E-03	4.79E-03	2.30E-03	1.01E-03	3.50E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
372943.49	3761051.66	9.00E-05	2.16E-03	4.08E-03	2.99E-03	1.98E-03	9.50E-04	3.80E-04	1.30E-04	3.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
373546.52	3760907.48	1.00E-04	2.38E-03	4.53E-03	3.44E-03	2.30E-03	1.13E-03	4.50E-04	1.50E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
373736.60	3765603.93	1.94E-03	8.46E-03	1.89E-02	1.78E-02	1.19E-02	6.59E-03	1.55E-03	3.80E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
373758.20	3758043.23	8.80E-04	3.22E-02	7.53E-02	5.81E-02	5.65E-02	3.09E-02	5.76E-03	2.33E-03	2.80E-04	6.00E-05	3.20E-04	0.00E+00	0.00E+00	0.00E+00
373781.58	3753802.14	7.40E-04	4.68E-03	1.08E-02	1.08E-02	6.17E-03	3.18E-03	8.60E-04	2.40E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
373814.20	3756040.57	1.52E-03	5.85E-03	1.24E-02	1.19E-02	7.30E-03	3.84E-03	1.01E-03	2.70E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
373990.06	3753826.14	1.40E-04	2.34E-03	5.22E-03	4.67E-03	2.68E-03	1.19E-03	4.70E-04	1.10E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Gasoline Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
374057.73	3758196.51	7.40E-04	2.56E-02	5.52E-02	4.12E-02	3.72E-02	2.01E-02	4.65E-03	1.82E-03	2.30E-04	5.00E-05	2.60E-04	0.00E+00	0.00E+00	0.00E+00
374270.95	3758673.42	5.00E-04	1.69E-02	2.97E-02	1.96E-02	1.46E-02	7.41E-03	3.12E-03	1.17E-03	1.60E-04	3.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
374561.05	3757642.94	8.30E-04	1.69E-02	4.75E-02	4.83E-02	4.27E-02	2.61E-02	3.18E-03	1.05E-03	1.90E-04	4.00E-05	2.20E-04	0.00E+00	0.00E+00	0.00E+00
374688.84	3758984.90	3.80E-04	1.23E-02	2.13E-02	1.44E-02	1.03E-02	5.19E-03	2.29E-03	8.40E-04	1.30E-04	3.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
374693.96	3758983.17	3.80E-04	1.23E-02	2.14E-02	1.44E-02	1.04E-02	5.21E-03	2.29E-03	8.50E-04	1.30E-04	3.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
374717.46	3762574.39	3.00E-05	7.10E-04	1.41E-03	1.17E-03	8.10E-04	4.00E-04	1.40E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375503.80	3764537.77	3.00E-05	7.70E-04	1.55E-03	1.20E-03	8.20E-04	4.00E-04	1.40E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375614.97	3760555.10	1.30E-04	3.18E-03	5.82E-03	4.28E-03	2.85E-03	1.36E-03	6.20E-04	2.00E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
375718.04	3758204.95	5.40E-04	1.27E-02	2.89E-02	2.47E-02	2.04E-02	1.14E-02	2.39E-03	8.30E-04	1.50E-04	3.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
375902.79	3764940.52	3.00E-05	7.30E-04	1.52E-03	1.22E-03	8.20E-04	3.90E-04	1.30E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375908.38	3763938.71	4.00E-05	7.80E-04	1.68E-03	1.38E-03	9.30E-04	4.60E-04	1.60E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375920.60	3762083.39	6.00E-05	1.38E-03	2.38E-03	1.81E-03	1.11E-03	5.30E-04	2.70E-04	9.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
376709.15	3756388.48	2.80E-04	2.93E-03	5.91E-03	5.49E-03	3.13E-03	1.45E-03	5.90E-04	1.40E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
376814.39	3754856.21	8.00E-05	1.37E-03	3.10E-03	2.77E-03	1.69E-03	8.00E-04	2.70E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
377050.15	3761774.29	8.00E-05	1.97E-03	3.67E-03	2.79E-03	1.90E-03	9.40E-04	3.80E-04	1.20E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
377052.34	3761911.90	8.00E-05	1.84E-03	3.43E-03	2.59E-03	1.77E-03	8.70E-04	3.50E-04	1.10E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
377227.14	3756422.42	2.40E-04	2.67E-03	5.25E-03	4.92E-03	2.76E-03	1.25E-03	5.50E-04	1.30E-04	3.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
377237.88	3763993.21	4.00E-05	1.02E-03	1.85E-03	1.45E-03	9.20E-04	4.30E-04	1.90E-04	6.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
377313.01	3756205.13	2.00E-04	2.31E-03	4.67E-03	4.32E-03	2.45E-03	1.11E-03	4.70E-04	1.10E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
377330.56	3760754.60	1.40E-04	3.68E-03	6.42E-03	4.70E-03	3.16E-03	1.56E-03	7.00E-04	2.40E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
377342.37	3764027.27	4.00E-05	1.01E-03	1.85E-03	1.44E-03	9.10E-04	4.30E-04	1.90E-04	6.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
377388.19	3762578.39	6.00E-05	1.49E-03	2.79E-03	2.09E-03	1.42E-03	7.00E-04	2.80E-04	9.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
377563.47	3760340.44	1.80E-04	4.65E-03	8.37E-03	6.08E-03	4.26E-03	2.13E-03	8.70E-04	3.00E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
377753.42	3759272.76	4.90E-04	9.90E-03	1.55E-02	1.07E-02	7.82E-03	4.04E-03	1.32E-03	4.40E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
377839.66	3764649.02	4.00E-05	8.90E-04	1.61E-03	1.25E-03	7.90E-04	3.70E-04	1.70E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377841.65	3762246.94	8.00E-05	1.78E-03	3.27E-03	2.52E-03	1.71E-03	8.50E-04	3.40E-04	1.10E-04	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
377908.39	3762502.03	7.00E-05	1.60E-03	2.98E-03	2.29E-03	1.55E-03	7.70E-04	3.10E-04	1.00E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
377916.00	3755241.12	8.00E-05	1.28E-03	2.76E-03	2.51E-03	1.46E-03	6.60E-04	2.60E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
377924.86	3763642.88	5.00E-05	1.11E-03	2.07E-03	1.56E-03	1.03E-03	5.00E-04	2.10E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
377967.05	3762224.48	8.00E-05	1.82E-03	3.32E-03	2.56E-03	1.73E-03	8.60E-04	3.50E-04	1.10E-04	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
378003.52	3753139.05	4.00E-05	8.40E-04	1.87E-03	1.64E-03	9.90E-04	4.60E-04	1.60E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
378022.11	3755897.25	1.20E-04	1.55E-03	3.05E-03	2.86E-03	1.59E-03	7.10E-04	3.20E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
378066.59	3761432.90	1.10E-04	2.72E-03	4.78E-03	3.57E-03	2.38E-03	1.17E-03	5.30E-04	1.70E-04	3.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
378209.66	3764122.39	4.00E-05	9.90E-04	1.84E-03	1.39E-03	9.20E-04	4.40E-04	1.90E-04	6.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
378212.33	3753511.52	4.00E-05	8.50E-04	1.89E-03	1.67E-03	1.02E-03	4.70E-04	1.70E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
378223.51	3760237.39	1.90E-04	4.89E-04	8.97E-03	6.68E-03	4.76E-03	2.41E-03	9.20E-04	3.20E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
378326.90	3764105.95	4.00E-05	9.70E-04	1.85E-03	1.40E-03	9.30E-04	4.50E-04	1.90E-04	6.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
378366.51	3755075.26	7.00E-05	1.05E-03	2.18E-03	2.04E-03	1.18E-03	5.30E-04	2.20E-04	5.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
378370.05	3759869.86	2.30E-04	5.66E-03	1.06E-02	8.17E-03	5.87E-03	2.99E-03	1.08E-03	3.60E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
378781.96	3760336.17	1.90E-04	4.63E-03	8.54E-03	6.46E-03	4.60E-03	2.34E-03	8.80E-04	3.00E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
378862.39	3757229.87	2.30E-04	2.95E-03	5.81E-03	5.32E-03	3.29E-03	1.60E-03	5.90E-04	1.50E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
366900.00	3759500.00	2.10E-04	3.74E-03	6.73E-03	6.69E-03	3.47E-03	1.37E-03	8.30E-04	1.60E-04	3.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
367900.00	3759500.00	2.30E-04	4.25E-03	7.71E-03	7.49E-03	4.01E-03	1.61E-03	9.20E-04	1.90E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
368900.00	3760500.00	1.50E-04	2.78E-03	5.00E-03	4.72E-03	2.55E-03	1.06E-03	6.00E-04	1.30E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
368900.00	3761500.00	1.

Pollutant: ROG, Emissions Source: Gasoline Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
373900.00	3762500.00	4.00E-05	9.10E-04	1.69E-03	1.30E-03	8.50E-04	4.20E-04	1.60E-04	6.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373900.00	3763500.00	3.00E-05	6.70E-04	1.25E-03	1.01E-03	7.00E-04	3.40E-04	1.40E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374900.00	3753500.00	9.00E-05	1.70E-03	3.86E-03	3.52E-03	2.10E-03	9.50E-04	3.40E-04	8.00E-05	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
374900.00	3758500.00	5.50E-04	1.68E-02	3.44E-02	2.54E-02	2.08E-02	1.11E-02	3.09E-03	1.16E-03	1.80E-04	4.00E-05	2.10E-04	0.00E+00	0.00E+00	0.00E+00
375900.00	3754500.00	8.00E-05	1.54E-03	3.51E-03	3.06E-03	1.88E-03	9.00E-04	3.00E-04	8.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
375900.00	3757500.00	5.60E-04	8.33E-03	1.87E-02	1.71E-02	1.26E-02	7.04E-03	1.61E-03	4.70E-04	1.00E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
375900.00	3758500.00	4.80E-04	1.21E-02	2.61E-02	2.11E-02	1.70E-02	9.17E-03	2.28E-03	8.00E-04	1.50E-04	3.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
375900.00	3759500.00	2.70E-04	7.68E-03	1.36E-02	9.46E-03	6.66E-03	3.33E-03	1.43E-03	5.10E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
376900.00	3753500.00	6.00E-05	1.07E-03	2.38E-03	2.08E-03	1.26E-03	5.80E-04	2.10E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3754500.00	7.00E-05	1.25E-03	2.82E-03	2.49E-03	1.53E-03	7.20E-04	2.40E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3757500.00	4.30E-04	6.02E-03	1.28E-02	1.15E-02	7.95E-03	4.22E-03	1.17E-03	3.30E-04	8.00E-05	2.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3763500.00	5.00E-05	1.14E-03	2.04E-03	1.58E-03	9.90E-04	4.70E-04	2.20E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
377900.00	3758500.00	3.20E-04	6.43E-03	1.31E-02	1.10E-02	8.20E-03	4.39E-03	1.24E-03	4.10E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
378900.00	3754500.00	5.00E-05	8.10E-04	1.69E-03	1.57E-03	9.30E-04	4.20E-04	1.70E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
378900.00	3761500.00	1.10E-04	2.78E-03	4.92E-03	3.66E-03	2.48E-03	1.23E-03	5.30E-04	1.80E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
379900.00	3753500.00	3.00E-05	6.60E-04	1.45E-03	1.30E-03	7.80E-04	3.50E-04	1.30E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
379900.00	3758500.00	2.40E-04	4.28E-03	8.46E-03	7.22E-03	5.14E-03	2.70E-03	8.30E-04	2.60E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
380900.00	3764500.00	5.00E-05	9.70E-04	1.77E-03	1.41E-03	9.40E-04	4.70E-04	1.90E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
381900.00	3753500.00	3.00E-05	4.80E-04	9.80E-04	9.00E-04	5.20E-04	2.30E-04	1.00E-04	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
381900.00	3758500.00	1.80E-04	2.97E-03	5.73E-03	4.94E-03	3.41E-03	1.76E-03	5.90E-04	1.80E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
383900.00	3758500.00	1.30E-04	2.19E-03	4.16E-03	3.60E-03	2.43E-03	1.24E-03	4.30E-04	1.30E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
383900.00	3759500.00	1.50E-04	2.66E-03	4.99E-03	4.19E-03	2.94E-03	1.53E-03	5.20E-04	1.70E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
383900.00	3760500.00	1.40E-04	2.76E-03	5.16E-03	4.25E-03	3.00E-03	1.55E-03	5.40E-04	1.80E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
383900.00	3761500.00	1.20E-04	2.62E-03	4.82E-03	3.87E-03	2.69E-03	1.37E-03	5.10E-04	1.60E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
368085.00	3759500.00	1.15E-03	1.83E-02	3.04E-02	3.13E-02	1.32E-02	4.65E-03	4.60E-03	6.10E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
368185.00	3759500.00	1.24E-03	2.00E-02	3.38E-02	3.48E-02	1.51E-02	5.34E-03	4.99E-03	6.60E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
368285.00	3759500.00	1.25E-03	1.99E-02	3.31E-02	3.43E-02	1.45E-02	5.07E-03	5.10E-03	6.70E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
368385.00	3759500.00	1.28E-03	2.05E-02	3.41E-02	3.55E-02	1.50E-02	5.25E-03	5.33E-03	7.00E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
368485.00	3759500.00	1.31E-03	2.10E-02	3.50E-02	3.66E-02	1.56E-02	5.41E-03	5.52E-03	7.30E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
368585.00	3759500.00	1.33E-03	2.14E-02	3.58E-02	3.77E-02	1.61E-02	5.59E-03	5.72E-03	7.60E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
368685.00	3759500.00	1.34E-03	2.17E-02	3.66E-02	3.88E-02	1.67E-02	5.76E-03	5.90E-03	7.80E-04	7.00E-05	2.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
368785.00	3759500.00	1.33E-03	2.16E-02	3.67E-02	3.93E-02	1.71E-02	5.86E-03	5.97E-03	7.90E-04	8.00E-05	2.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
368885.00	3759500.00	1.30E-03	2.13E-02	3.64E-02	3.94E-02	1.74E-02	5.91E-03	5.97E-03	8.00E-04	8.00E-05	2.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
368985.00	3759500.00	1.25E-03	2.07E-02	3.58E-02	3.91E-02	1.74E-02	5.90E-03	5.86E-03	7.90E-04	8.00E-05	2.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
369085.00	3759500.00	1.20E-03	2.00E-02	3.51E-02	3.87E-02	1.74E-02	5.86E-03	5.69E-03	7.70E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369185.00	3759500.00	1.15E-03	1.93E-02	3.44E-02	3.81E-02	1.72E-02	5.78E-03	5.45E-03	7.50E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369285.00	3759500.00	1.11E-03	1.87E-02	3.38E-02	3.75E-02	1.69E-02	5.66E-03	5.16E-03	7.20E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369385.00	3759500.00	1.05E-03	1.79E-02	3.37E-02	3.65E-02	1.61E-02	5.39E-03	4.53E-03	6.60E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369485.00	3759500.00	1.05E-03	1.76E-02	3.36E-02	3.53E-02	1.49E-02	5.01E-03	4.06E-03	6.10E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369585.00	3759500.00	1.09E-03	1.80E-02	3.40E-02	3.53E-02	1.48E-02	5.07E-03	4.21E-03	6.20E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369685.00	3759500.00	1.10E-03	1.81E-02	3.40E-02	3.56E-02	1.55E-02	5.42E-03	4.54E-03	6.50E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369785.00	3759500.00	1.04E-03	1.74E-02	3.27E-02	3.47E-02	1.58E-02	5.63E-03	4.61E-03	6.60E-04	9.00E-05	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
369885.00	3759500.00	9.60E-04	1.62E-02	3.09E-02	3.35E-02	1.60E-02	5.70E-03	4.47E-03	6.40E-04	9.00E-05	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
369985.00	3759500.00	9.10E-04	1.56E-02	2.99E-02	3.29E-02	1.61E-02	5.72E-03	4.16E-03	6.10E-04	1.10E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
370085.00	3759500.00	8.60E-04	1.48E-02	2.88E-02	3.18E-02	1.58E-02	5.61E-03	3.83E-03	5.70E-04	1.10E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
370185.00	3759500.00	8.30E-04	1.45E-02	2.84E-02	3.13E-02	1.55E-02	5.48E-03	3.58E-03	5.40E-04	1.20E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
370285.00	3759500.00	8.10E-04	1.41E-02	2.82E-02	3.08E-02	1.51E-02	5.42E-03	3.40E-03	5.10E-04	1.10E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
370377.81	3755313.33	7.40E-04	1.28E-02	2.59E-02	2.79E-02	1.36E-02	4.93E-03	3.03E-03	4.60E-04	1.10E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
370477.81	3755313.33	7.60E-04	1.28E-02	2.60E-02	2.77E-02	1.33E-02	4.85E-03	3.03E-03	4.70E-04	1.20E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
370577.81	3755313.33	7.50E-04	1.25E-02	2.54E-02	2.68E-02	1.32E-02	4.81E-03	2.98E-03	4.60E-04	1.20E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
370677.81	3755313.33	7.40E-04	1.19E-02	2.38E-02	2.47E-02	1.19E-02	4.53E-03	2.92E-03	4.50E-04	1.10E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
370777.81	3755313.33	7.30E-04	1.16E-02	2.28E-02	2.36E-02	1.17E-02	4.48E-03	2.83E-03	4.50E-04	1.10E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
370877.81	3755313.33	7.10E-04	1.13E-02	2.21E-02	2.29E-02	1.17E-02	4.44E-03	2.75E-03	4.60E-04	1.10E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
370977.81	3755313.33	6.70E-04	1.11E-02	2.26E-02	2.34E-02	1.21E-02	4.56E-03	2.58E-03	4.60E-04	1.30E-04	3.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
371077.81	3755313.33	6.40E-04	1.06E-02	2.17E-02	2.25E-02	1.18E-02	4.43E-03	2.41E-03	4.50E-04	1.30E-04	3.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
371177.81	3755313.33	6.10E-04	1.01E-02	2.10E-02	2.17E-02	1.14E-02	4.27E-03	2.25E-03	4.30E-04	1.30E-04	3.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
371277.81	3755313.33	5.90E-04	9.74E-03	2.03E-02	2.08E-02	1.09E-02	4.10E-03	2.11E-03	4.20E-04	1.30E-04	3.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
371377.81	3755313.33	5.80E-04	9.38E-03	1.97E-02	2.00E-02	1.04E-02	3.92E-03	1.98E-03	4.10E-04	1.30E-04	3.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
371477.81	3755313.33	5.70E-04	9.05E-03	1.90E-02	1.91E-02	9.86E-03	3.75E-03	1.88E-03	3.90E-04	1.30E-04	3.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
371577.81	3755313.33	5.60E-04	8.73E-03	1.84E-02	1.82E-02	9.38E-03	3.60E-03	1.79E-03	3.80E-04	1.20E-04	2.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
371677.81	3755313.33	5.60E-04	8.42E-03	1.79E-02	1.74E-02	8.94E-03	3.47E-03	1.71E-03	3.70E-04	1.20E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
371777.81	3755313.33	5.60E-04	8.11E-03	1.73E-02	1.66E-02	8.56E-03	3.36E-03	1.63E-03	3.60E-04	1.10E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
371877.82	3755232.57	5.20E-04	7.47E-03	1.60E-02	1.52E-02	7.88E-03	3.12E-03	1.50E-03	3.30E-04	1.00E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
371977.82	3755232.57	5.10E-04	7.19E-03	1.55E-02	1.46E-02	7.64E-03	3.07E-03	1.43E-03	3.30E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Gasoline Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
372071.82	3755232.57	5.10E-04	6.92E-03	1.50E-02	1.41E-02	7.45E-03	3.04E-03	1.37E-03	3.20E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
372171.82	3755232.57	4.90E-04	6.66E-03	1.45E-02	1.37E-02	7.30E-03	3.01E-03	1.30E-03	3.10E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
372271.82	3755232.57	4.80E-04	6.40E-03	1.41E-02	1.33E-02	7.15E-03	3.00E-03	1.24E-03	3.00E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
372371.82	3755232.57	4.70E-04	6.16E-03	1.36E-02	1.30E-02	7.01E-03	2.99E-03	1.18E-03	3.00E-04	8.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
372471.82	3755232.57	4.60E-04	5.93E-03	1.32E-02	1.28E-02	6.86E-03	2.98E-03	1.13E-03	2.90E-04	8.00E-05	2.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
372571.82	3755232.57	4.50E-04	5.70E-03	1.27E-02	1.26E-02	6.68E-03	2.95E-03	1.08E-03	2.80E-04	8.00E-05	2.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
372671.82	3755232.57	4.40E-04	5.47E-03	1.23E-02	1.27E-02	6.47E-03	2.90E-03	1.03E-03	2.80E-04	8.00E-05	2.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
372771.82	3755232.57	4.30E-04	5.25E-03	1.18E-02	1.29E-02	6.25E-03	2.84E-03	9.80E-04	2.70E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
372871.82	3755232.57	4.20E-04	5.02E-03	1.14E-02	1.32E-02	6.02E-03	2.77E-03	9.40E-04	2.60E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
372971.82	3755232.57	4.10E-04	4.80E-03	1.10E-02	1.25E-02	5.78E-03	2.68E-03	8.90E-04	2.50E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_ROG_Annual.xlsx Annual ROG Summary by Source

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Gasoline Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
369131.40	3758945.42	1.00E-04	2.34E-03	4.22E-03	4.05E-03	2.41E-03	1.02E-03	6.50E-04	1.60E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
370190.78	3758848.26	8.00E-05	2.72E-03	4.81E-03	4.03E-03	2.73E-03	1.26E-03	7.40E-04	2.60E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
370747.03	3763937.58	1.00E-05	3.30E-04	7.20E-04	6.40E-04	4.40E-04	2.10E-04	8.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370757.72	3755124.52	2.60E-04	4.47E-03	8.54E-03	8.80E-03	4.80E-03	1.97E-03	1.49E-03	2.50E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
370946.70	3758260.69	1.70E-04	6.44E-03	1.08E-02	7.95E-03	4.99E-03	2.37E-03	1.73E-03	6.60E-04	1.60E-04	3.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
371368.79	3754218.82	1.20E-04	2.29E-03	4.41E-03	4.47E-03	2.53E-03	1.03E-03	7.10E-04	1.40E-04	3.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
371786.04	3754168.42	1.00E-04	1.98E-03	4.05E-03	4.11E-03	2.40E-03	9.90E-04	6.00E-04	1.20E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
373756.25	3761779.11	2.00E-05	6.20E-04	1.11E-03	8.60E-04	5.70E-04	2.90E-04	1.60E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367734.03	3758536.57	1.50E-04	3.02E-03	5.30E-03	5.37E-03	3.07E-03	1.28E-03	9.30E-04	1.70E-04	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
368069.11	3760165.13	6.00E-05	1.37E-03	2.52E-03	2.40E-03	1.49E-03	6.60E-04	4.00E-04	1.00E-04	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
369125.38	3763066.25	2.00E-05	4.80E-04	9.90E-04	9.20E-04	6.10E-04	2.90E-04	1.30E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369225.45	3764227.42	3.00E-05	3.70E-04	7.60E-04	7.10E-04	4.70E-04	2.20E-04	1.00E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370236.75	3761140.30	3.00E-05	7.30E-04	1.62E-03	1.49E-03	1.04E-03	4.90E-04	1.90E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372218.41	3759157.53	9.00E-05	3.05E-03	5.59E-03	4.10E-03	2.77E-03	1.38E-03	7.80E-04	2.90E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
372267.44	3762986.25	1.00E-05	3.10E-04	5.60E-04	4.50E-04	3.20E-04	1.60E-04	9.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374498.14	3758643.27	1.90E-04	6.93E-03	1.28E-02	8.73E-03	6.52E-03	3.47E-03	1.82E-03	6.90E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
375472.61	3759680.03	9.00E-05	2.83E-03	4.84E-03	3.49E-03	2.41E-03	1.24E-03	7.60E-04	2.70E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
375514.38	3757500.61	2.30E-04	4.08E-03	9.32E-03	8.72E-03	6.41E-03	3.80E-03	1.12E-03	3.40E-04	8.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
377395.41	3759189.37	1.10E-04	3.08E-03	5.96E-03	4.72E-03	3.41E-03	1.80E-03	8.40E-04	2.90E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
366363.62	3757753.10	2.20E-04	3.99E-03	6.69E-03	6.89E-03	3.49E-03	1.40E-03	1.27E-03	1.90E-04	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
369385.71	3758351.85	1.60E-04	3.70E-03	6.88E-03	7.09E-03	4.42E-03	1.82E-03	1.05E-03	2.40E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369388.19	3758584.61	1.30E-04	3.02E-03	5.58E-03	5.50E-03	3.31E-03	1.37E-03	8.50E-04	2.00E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
371727.30	3758286.14	2.10E-04	8.70E-03	1.46E-02	9.52E-03	6.08E-03	3.01E-03	2.17E-03	9.00E-04	1.50E-04	3.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
371973.18	3757657.97	6.10E-04	1.70E-01	1.67E-01	3.04E-02	1.63E-02	2.97E-02	8.85E-02	6.46E-02	7.00E-04	1.20E-04	7.60E-04	0.00E+00	0.00E+00	0.00E+00
372028.99	3757658.28	2.50E-04	2.98E-03	3.05E-03	3.15E-03	2.47E-03	1.06E-03	4.42E-04	6.70E-04	1.10E-04	1.30E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00
372057.72	3757303.44	1.38E-03	4.93E-02	6.97E-02	4.29E-02	2.41E-02	1.09E-02	8.75E-03	1.07E-02	8.80E-04	1.50E-04	9.60E-04	0.00E+00	0.00E+00	0.00E+00
372058.94	3757365.68	1.19E-03	9.99E-02	1.02E-01	4.01E-02	2.26E-02	1.09E-02	1.06E-02	1.20E-02	8.80E-04	1.50E-04	9.60E-04	0.00E+00	0.00E+00	0.00E+00
372114.76	3757419.38	1.03E-03	1.25E-01	1.71E-01	3.76E-02	2.13E-02	1.14E-02	1.37E-02	1.11E-02	8.10E-04	1.30E-04	8.80E-04	0.00E+00	0.00E+00	0.00E+00
372149.51	3757302.81	1.31E-03	4.23E-02	7.01E-02	4.16E-02	2.35E-02	1.08E-02	7.37E-03	6.35E-03	7.70E-04	1.30E-04	8.40E-04	0.00E+00	0.00E+00	0.00E+00
366675.72	3757743.67	2.50E-04	4.43E-03	7.42E-03	7.66E-03	3.90E-03	1.57E-03	1.40E-03	2.10E-04	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
367105.41	3757963.83	2.20E-04	4.23E-03	7.22E-03	7.42E-03	3.92E-03	1.60E-03	1.30E-03	2.10E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
367221.30	3757911.68	2.40E-04	4.50E-03	7.64E-03	7.91E-03	4.18E-03	1.69E-03	1.39E-03	2.20E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Gasoline Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
368748.06	3758034.51	2.80E-04	5.72E-03	9.95E-03	1.01E-02	5.65E-03	2.33E-03	1.69E-03	3.10E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
368771.48	3755472.04	6.20E-04	1.07E-02	1.78E-02	1.86E-02	9.05E-03	3.47E-03	3.97E-03	5.30E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
368806.72	3758070.98	2.80E-04	5.61E-03	9.79E-03	9.85E-03	5.49E-03	2.26E-03	1.65E-03	3.00E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
368863.73	3755470.88	6.10E-04	1.06E-02	1.78E-02	1.88E-02	9.22E-03	3.52E-03	4.01E-03	5.40E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
368865.39	3758107.46	2.70E-04	5.50E-03	9.62E-03	9.68E-03	5.41E-03	2.23E-03	1.63E-03	3.00E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
368931.37	3758150.49	2.60E-04	5.27E-03	9.28E-03	9.38E-03	5.33E-03	2.20E-03	1.59E-03	3.00E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
368955.99	3755469.72	5.90E-04	1.04E-02	1.76E-02	1.88E-02	9.34E-03	3.54E-03	4.00E-03	5.40E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
368974.29	3758177.61	2.50E-04	5.08E-03	9.00E-03	9.14E-03	5.28E-03	2.18E-03	1.54E-03	2.90E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
368992.63	3758138.09	2.60E-04	5.33E-03	9.41E-03	9.56E-03	5.51E-03	2.27E-03	1.61E-03	3.00E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
369011.06	3758086.77	2.70E-04	5.66E-03	9.98E-03	1.01E-02	5.78E-03	2.38E-03	1.71E-03	3.20E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
369048.25	3755468.56	5.70E-04	1.01E-02	1.73E-02	1.86E-02	9.37E-03	3.53E-03	3.94E-03	5.40E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
369097.31	3758131.13	2.50E-04	5.23E-03	9.34E-03	9.57E-03	5.68E-03	2.34E-03	1.60E-03	3.10E-04	7.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
369140.50	3755467.40	5.40E-04	9.76E-03	1.68E-02	1.83E-02	9.32E-03	3.49E-03	3.81E-03	5.30E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
369216.91	3758091.16	2.40E-04	5.27E-03	9.50E-03	9.86E-03	6.05E-03	2.50E-03	1.61E-03	3.20E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369232.76	3755466.24	5.20E-04	9.41E-03	1.64E-02	1.80E-02	9.20E-03	3.42E-03	3.65E-03	5.10E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
369267.76	3758146.04	2.30E-04	5.09E-03	9.34E-03	9.87E-03	6.20E-03	2.53E-03	1.50E-03	3.00E-04	8.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369271.60	3758257.04	1.90E-04	4.17E-03	7.67E-03	8.03E-03	5.10E-03	2.10E-03	1.24E-03	2.60E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369323.20	3758086.63	2.40E-04	5.44E-03	1.00E-02	1.06E-02	6.68E-03	2.72E-03	1.59E-03	3.20E-04	8.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
369328.65	3758304.45	1.70E-04	3.90E-03	7.21E-03	7.51E-03	4.75E-03	1.96E-03	1.13E-03	2.50E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369329.84	3755464.79	5.00E-04	9.11E-03	1.61E-02	1.76E-02	9.02E-03	3.34E-03	3.45E-03	4.90E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
369342.43	3757939.52	3.00E-04	6.63E-03	1.20E-02	1.28E-02	7.97E-03	3.24E-03	1.96E-03	3.80E-04	9.00E-05	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369386.54	3758429.44	1.50E-04	3.42E-03	6.37E-03	6.48E-03	3.99E-03	1.64E-03	9.70E-04	2.20E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369387.36	3758507.31	1.40E-04	3.19E-03	5.92E-03	5.93E-03	3.60E-03	1.48E-03	9.00E-04	2.10E-04	7.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
369449.11	3758008.60	2.60E-04	5.93E-03	1.09E-02	1.16E-02	7.41E-03	3.02E-03	1.73E-03	3.10E-04	9.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
369426.92	3754623.35	4.90E-04	8.94E-03	1.59E-02	1.74E-02	8.83E-03	3.26E-03	3.27E-03	4.70E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
369468.66	3758583.75	1.30E-04	3.04E-03	5.59E-03	5.38E-03	3.19E-03	1.33E-03	8.40E-04	2.00E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
369524.00	3755461.90	4.90E-04	8.86E-03	1.59E-02	1.72E-02	8.65E-03	3.20E-03	3.14E-03	4.60E-04	7.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
369549.13	3758582.89	1.40E-04	3.18E-03	5.82E-03	5.50E-03	3.25E-03	1.37E-03	8.60E-04	2.10E-04	7.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
369621.08	3755460.45	4.90E-04	8.78E-03	1.58E-02	1.70E-02	8.55E-03	3.19E-03	3.07E-03	4.50E-04	7.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
369629.61	3758582.03	1.40E-04	3.27E-03	5.94E-03	5.50E-03	3.23E-03	1.38E-03	8.80E-04	2.20E-04	7.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
369710.08	3758581.17	1.40E-04	3.37E-03	6.09E-03	5.60E-03	3.35E-03	1.44E-03	9.10E-04	2.40E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369718.16	3755459.00	4.80E-04	8.58E-03	1.56E-02	1.68E-02	8.51E-03	3.20E-03	3.04E-03	4.50E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369787.02	3758286.68	1.80E-04	4.27E-03	8.18E-03	8.02E-03	5.00E-03	2.07E-03	1.19E-03	2.90E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369788.19	3758398.38	1.60E-04	3.95E-03	7.55E-03	7.31E-03	4.64E-03	1.93E-03	1.08E-03	2.70E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369789.37	3758489.35	1.40E-04	3.66E-03	6.92E-03	6.63E-03	4.22E-03	1.78E-03	9.90E-04	2.50E-04	8.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
369815.24	3754457.16	4.50E-04	8.24E-03	1.51E-02	1.63E-02	8.52E-03	3.24E-03	3.00E-03	4.40E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369882.94	3758285.07	1.70E-04	4.35E-03	8.40E-03	8.19E-03	5.27E-03	2.18E-03	1.20E-03	3.10E-04	1.00E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
369912.32	3754456.11	4.20E-04	7.78E-03	1.44E-02	1.58E-02	8.51E-03	3.26E-03	2.88E-03	4.30E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369978.66	3758283.45	1.60E-04	4.21E-03	8.10E-03	7.73E-03	5.02E-03	2.11E-03	1.19E-03	3.10E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
370009.40	3754454.66	3.90E-04	7.34E-03	1.38E-02	1.53E-02	8.45E-03	3.24E-03	2.70E-03	4.00E-04	8.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
370056.44	3758282.14	1.40E-04	4.01E-03	7.49E-03	7.04E-03	4.71E-03	2.01E-03	1.15E-03	3.10E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
370106.48	3754453.21	3.70E-04	7.01E-03	1.34E-02	1.48E-02	8.29E-03	3.17E-03	2.50E-03	3.80E-04	8.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
370130.90	3758282.44	1.30E-04	3.98E-03	7.30E-03	6.77E-03	4.63E-03	2.00E-03	1.09E-03	3.10E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
370203.56	3754451.77	3.60E-04	6.82E-03	1.32E-02	1.45E-02	8.06E-03	3.07E-03	2.33E-03	3.60E-04	8.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
370226.81	3758159.47	1.60E-04	4.96E-03	9.61E-03	8.92E-03	5.96E-03	2.50E-03	1.28E-03	3.80E-04	1.50E-04	2.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
370227.55	3758221.46	1.50E-04	4.69E-03	9.00E-03	8.29E-03	5.56E-03	2.34E-03	1.19E-03	3.60E-04	1.40E-04	2.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
370228.30	3758283.44	1.40E-04	4.45E-03	8.48E-03	7.75E-03	5.19E-03	2.20E-03	1.13E-03	3.50E-04	1.30E-04	2.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
370253.14	3758168.84	1.60E-04	4.96E-03	9.58E-03	8.81E-03	5.87E-03	2.46E-03	1.26E-03	3.80E-04	1.50E-04	3.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
370300.64	3754450.32	3.60E-04	6.71E-03	1.31E-02	1.44E-02	7.84E-03	2.99E-03	2.22E-03	3.50E-04	8.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
370308.97	3758176.51	1.50E-04	5.03E-03	9.64E-03	9.03E-03	5.76E-03	2.43E-03	1.26E-03	3.90E-04	1.50E-04	3.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
370356.87	3758202.23	1.50E-04	5.00E-03	9.53E-03	8.41E-03	5.55E-03	2.35E-03	1.23E-03	4.00E-04	1.50E-04	3.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
370397.72	3754448.87	3.50E-04	6.62E-03	1.31E-02	1.41E-02	7.59E-03	2.90E-03	2.18E-03	3.40E-04	8.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
370404.21	3758225.88	1.40E-04	5.00E-03	9.46E-03	8.18E-03	5.37E-03	2.29E-03	1.22E-03	4.10E-04	1.50E-04	3.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
370422.64	3758284.19	1.30E-04	4.80E-03	9.01E-03	7.68E-03	5.05E-03	2.17E-03	1.16E-03	4.00E-04	1.40E-04	2.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
370442.78	3758228.43	1.40E-04	5.09E-03	9.57E-03	8.15E-03	5.33E-03	2.28E-03	1.23E-03	4.20E-04	1.50E-04	3.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
370465.02	3755455.18	3.50E-04	6.59E-03	1.31E-02	1.41E-02	7.52E-03	2.89E-03	2.19E-03	3.40E-04	9.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
370522.53	3758282.84	1.40E-04	5.06E-03	9.35E-03	7.68E-03	4.99E-03	2.18E-03	1.21E-03	4.40E-04	1.50E-04	2.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
370558.15	3754458.94	3.40E-04	6.37E-03	1.28E-02	1.37E-02	7.38E-03	2.88E-03	2.15E-03	3.30E-04	9.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
370622.42	3758281.49	1.40E-04	5.37E-03	9.74E-03	7.71E-03	4.94E-03	2.19E-03	1.29E-03	4.80E-04	1.50E-04	3.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
370624.63	3755467.51	3.40E-04	6.28E-03	1.27E-02	1.35E-02	7.35E-03	2.89E-03	2.13E-03	3.30E-04	9.00E-05	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
370691.11	3755476.08	3.40E-04	6.17E-03	1.25E-02	1.33E-02	7.33E-03	2.90E-03	2.09E-03	3.30E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
370722.31	3758280.14	1.50E-04	5.70E-03	1.01E-02	7.77E-03	4.91E-03	2.22E-03	1.39E-03	5.20E-04	1.60E-04	3.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
370757.38	3754493.32	3.30E-04	6.09E-03	1.24E-02	1.32E-02	7.38E-03	2.93E-03	2.07E-03	3.30E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
370792.87	3757995.38	2.30E-04	8.69E-03	1.50E-02	1.12E-02	6.84E-03	3.06E-03	2.09E-03	7.20E-04	2.70E-04	4.00E-05	2.90E-04	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Gasoline Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
370797.01	3758107.02	1.90E-04	7.52E-03	1.30E-02	9.65E-03	5.97E-03	2.70E-03	1.81E-03	6.60E-04	2.10E-04	4.00E-05	2.30E-04	0.00E+00	0.00E+00	0.00E+00
370798.36	3758194.12	1.70E-04	6.69E-03	1.16E-02	8.65E-03	5.40E-03	2.46E-03	1.63E-03	6.10E-04	1.80E-04	3.00E-05	2.00E-04	0.00E+00	0.00E+00	0.00E+00
370798.51	3757946.46	2.60E-04	9.33E-03	1.61E-02	1.21E-02	7.31E-03	3.25E-03	2.27E-03	7.70E-04	3.00E-04	5.00E-05	3.30E-04	0.00E+00	0.00E+00	0.00E+00
370799.71	3758281.23	1.50E-04	5.92E-03	1.03E-02	7.79E-03	4.89E-03	2.24E-03	1.47E-03	5.60E-04	1.60E-04	3.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
370807.53	3755529.02	3.30E-04	6.13E-03	1.25E-02	1.34E-02	7.61E-03	3.00E-03	2.06E-03	3.40E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
370818.52	3757901.47	2.80E-04	1.02E-02	1.74E-02	1.30E-02	7.80E-03	3.47E-03	2.51E-03	8.30E-04	3.40E-04	6.00E-05	3.70E-04	0.00E+00	0.00E+00	0.00E+00
370851.08	3758564.53	3.10E-04	1.11E-02	1.87E-02	1.38E-02	8.28E-03	3.70E-03	2.79E-03	9.00E-04	3.80E-04	6.00E-05	4.10E-04	0.00E+00	0.00E+00	0.00E+00
370854.34	3755560.20	3.30E-04	6.12E-03	1.26E-02	1.35E-02	7.76E-03	3.06E-03	2.04E-03	3.40E-04	1.10E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
370901.14	3755591.38	3.30E-04	6.11E-03	1.27E-02	1.36E-02	7.87E-03	3.08E-03	2.01E-03	3.50E-04	1.10E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
370908.58	3758358.61	3.20E-04	1.20E-02	1.97E-02	1.41E-02	8.45E-03	3.82E-03	3.02E-03	9.90E-04	3.90E-04	7.00E-05	4.30E-04	0.00E+00	0.00E+00	0.00E+00
370929.68	3755646.61	3.40E-04	6.29E-03	1.31E-02	1.42E-02	8.22E-03	3.19E-03	2.04E-03	3.60E-04	1.20E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
370932.48	3755705.67	3.50E-04	6.60E-03	1.39E-02	1.51E-02	8.70E-03	3.36E-03	2.12E-03	3.70E-04	1.30E-04	2.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
370959.17	3757378.41	1.11E-03	4.07E-02	5.31E-02	4.56E-02	2.70E-02	1.20E-02	3.17E-02	2.09E-03	9.56E-03	1.59E-03	1.04E-02	0.00E+00	0.00E+00	0.00E+00
370959.96	3757296.13	1.42E-03	3.97E-02	6.11E-02	5.60E-02	3.34E-02	1.38E-02	2.73E-01	2.00E-03	1.29E-02	2.15E-03	1.41E-02	0.00E+00	0.00E+00	0.00E+00
370960.75	3757213.81	1.79E-03	4.43E-02	7.43E-02	7.36E-02	4.39E-02	1.69E-02	2.09E-02	2.17E-03	1.75E-02	2.90E-03	1.90E-02	0.00E+00	0.00E+00	0.00E+00
370961.54	3757131.59	2.19E-03	5.24E-02	9.40E-02	9.90E-02	5.70E-02	1.96E-02	1.51E-02	2.28E-03	1.10E-02	1.83E-03	1.20E-02	0.00E+00	0.00E+00	0.00E+00
370962.33	3757049.29	2.56E-03	7.30E-02	1.34E-01	1.40E-01	7.32E-02	2.16E-02	1.51E-02	2.51E-03	1.09E-02	1.81E-03	1.19E-02	0.00E+00	0.00E+00	0.00E+00
370963.12	3756966.90	2.82E-03	8.84E-02	2.30E-01	2.23E-01	8.94E-02	2.16E-02	1.58E-02	2.75E-03	9.36E-03	1.56E-03	1.02E-02	0.00E+00	0.00E+00	0.00E+00
370966.07	3757852.69	3.30E-04	1.30E-02	2.07E-02	1.44E-02	8.63E-03	3.95E-03	3.28E-03	1.09E-03	4.10E-04	7.00E-05	4.50E-04	0.00E+00	0.00E+00	0.00E+00
370968.09	3757808.70	3.60E-04	1.40E-02	2.23E-02	1.55E-02	9.25E-03	4.21E-03	3.58E-03	1.15E-03	4.70E-04	8.00E-05	5.10E-04	0.00E+00	0.00E+00	0.00E+00
370983.75	3755705.22	3.40E-04	6.43E-03	1.36E-02	1.47E-02	8.49E-03	3.27E-03	2.03E-03	3.60E-04	1.30E-04	2.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
370986.42	3755628.02	3.20E-04	6.03E-03	1.26E-02	1.36E-02	7.88E-03	3.07E-03	1.92E-03	3.40E-04	1.20E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
370989.10	3755550.81	3.00E-04	5.67E-03	1.19E-02	1.26E-02	7.32E-03	2.88E-03	1.82E-03	3.30E-04	1.10E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
370991.77	3755473.61	2.90E-04	5.48E-03	1.10E-02	1.17E-02	6.81E-03	2.69E-03	1.73E-03	3.10E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
371017.44	3757371.98	1.13E-03	4.14E-02	5.66E-02	4.67E-02	2.78E-02	1.23E-02	5.13E-02	2.27E-03	1.47E-02	2.44E-03	1.60E-02	0.00E+00	0.00E+00	0.00E+00
371039.92	3757778.95	3.90E-04	1.63E-02	2.49E-02	1.66E-02	9.89E-03	4.56E-03	4.17E-03	1.36E-03	5.20E-04	9.00E-05	5.70E-04	0.00E+00	0.00E+00	0.00E+00
371061.56	3756965.39	3.73E-03	6.94E-02	1.72E-01	2.19E-01	9.86E-02	1.86E-02	1.43E-02	2.75E-03	1.45E-02	2.41E-03	1.58E-02	0.00E+00	0.00E+00	0.00E+00
371064.57	3755405.04	2.70E-04	4.93E-03	1.01E-02	1.07E-02	6.24E-03	2.48E-03	1.57E-03	2.90E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
371078.64	3757842.57	3.50E-04	1.54E-02	2.31E-02	1.50E-02	9.01E-03	4.22E-03	3.85E-03	1.33E-03	4.30E-04	7.00E-05	4.70E-04	0.00E+00	0.00E+00	0.00E+00
371116.65	3757378.24	1.09E-03	4.19E-02	6.72E-02	4.65E-02	2.77E-02	1.22E-02	3.49E-02	2.63E-03	9.53E-03	1.59E-03	1.04E-02	0.00E+00	0.00E+00	0.00E+00
371117.35	3757906.19	3.10E-04	1.44E-02	2.13E-02	1.36E-02	8.26E-03	3.94E-03	3.61E-03	1.31E-03	3.60E-04	6.00E-05	3.90E-04	0.00E+00	0.00E+00	0.00E+00
371160.25	3755403.96	2.60E-04	4.72E-03	9.70E-03	1.03E-02	5.99E-03	2.38E-03	1.46E-03	2.90E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
371160.00	3756963.88	6.68E-03	6.14E-02	1.46E-01	2.81E-01	1.48E-01	1.59E-02	1.25E-02	2.59E-03	6.73E-03	1.12E-03	7.33E-03	0.00E+00	0.00E+00	0.00E+00
371173.76	3757954.26	3.00E-04	1.37E-02	2.02E-02	1.28E-02	7.81E-03	3.80E-03	3.57E-03	1.35E-03	3.10E-04	5.00E-05	3.40E-04	0.00E+00	0.00E+00	0.00E+00
371174.47	3757986.09	2.80E-04	1.27E-02	1.89E-02	1.22E-02	7.48E-03	3.64E-03	3.36E-03	1.29E-03	2.90E-04	5.00E-05	3.20E-04	0.00E+00	0.00E+00	0.00E+00
371208.04	3757947.08	1.34E-03	4.99E-02	7.23E-02	5.37E-02	3.13E-02	1.21E-02	2.11E-02	2.67E-03	6.47E-03	1.08E-03	7.05E-03	0.00E+00	0.00E+00	0.00E+00
371208.86	3757379.08	1.08E-03	5.18E-02	8.12E-02	4.65E-02	2.75E-02	1.23E-02	2.44E-02	2.80E-03	5.44E-03	9.10E-04	5.99E-03	0.00E+00	0.00E+00	0.00E+00
371210.97	3757210.00	1.75E-03	4.82E-02	7.37E-02	6.89E-02	3.90E-02	1.34E-02	1.33E-02	2.58E-03	7.14E-03	1.19E-03	7.78E-03	0.00E+00	0.00E+00	0.00E+00
371243.87	3757985.25	2.90E-04	1.34E-02	1.96E-02	1.25E-02	7.61E-03	3.76E-03	3.64E-03	1.43E-03	2.80E-04	5.00E-05	3.10E-04	0.00E+00	0.00E+00	0.00E+00
371255.94	3754402.89	2.50E-04	4.54E-03	9.37E-03	9.87E-03	5.72E-03	2.27E-03	1.37E-03	2.80E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
371258.45	3756962.36	1.57E-02	7.84E-02	1.39E-01	3.61E-01	2.04E-01	1.33E-02	1.05E-02	2.22E-03	4.09E-03	6.80E-04	4.46E-03	0.00E+00	0.00E+00	0.00E+00
371275.69	3757208.66	1.74E-03	4.76E-02	7.42E-02	6.71E-02	3.75E-02	1.27E-02	1.26E-02	2.75E-03	5.31E-03	8.80E-04	5.78E-03	0.00E+00	0.00E+00	0.00E+00
371313.27	3757984.41	3.00E-04	1.41E-02	2.03E-02	1.27E-02	7.73E-03	3.89E-03	3.93E-03	1.58E-03	2.80E-04	5.00E-05	3.00E-04	0.00E+00	0.00E+00	0.00E+00
371348.54	3758024.62	2.80E-04	1.28E-02	1.89E-02	1.21E-02	7.38E-03	3.71E-03	3.62E-03	1.48E-03	2.50E-04	4.00E-05	2.80E-04	0.00E+00	0.00E+00

Pollutant: ROG, Emissions Source: Gasoline Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
373374.73	3757597.71	4.80E-04	1.69E-02	1.01E-01	2.47E-01	3.22E-01	2.60E-01	4.22E-03	1.62E-03	2.50E-04	4.00E-05	2.70E-04	0.00E+00	0.00E+00	0.00E+00
373374.83	3756432.37	1.49E-03	4.56E-03	9.00E-03	8.45E-03	5.70E-03	3.20E-03	1.05E-03	2.70E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
373375.60	3757685.31	4.60E-04	1.80E-02	8.73E-02	1.58E-01	1.99E-01	1.58E-01	4.46E-03	1.81E-03	2.50E-04	4.00E-05	2.70E-04	0.00E+00	0.00E+00	0.00E+00
373393.43	3757684.85	4.50E-04	1.76E-02	8.42E-02	1.46E-01	1.82E-01	1.39E-01	4.39E-03	1.77E-03	2.40E-04	4.00E-05	2.70E-04	0.00E+00	0.00E+00	0.00E+00
373394.30	3757744.19	4.40E-04	1.81E-02	7.30E-02	1.05E-01	1.34E-01	9.06E-02	4.51E-03	1.87E-03	2.40E-04	4.00E-05	2.60E-04	0.00E+00	0.00E+00	0.00E+00
367047.63	3761097.01	5.00E-05	1.01E-03	1.83E-03	1.73E-03	1.06E-03	4.70E-04	3.00E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370737.54	3762942.92	2.00E-05	4.10E-04	9.10E-04	8.00E-04	5.60E-04	2.60E-04	1.00E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371031.93	3758057.86	2.30E-04	9.79E-03	1.56E-02	1.07E-02	6.59E-03	3.12E-03	2.53E-03	9.40E-04	2.50E-04	4.00E-05	2.70E-04	0.00E+00	0.00E+00	0.00E+00
371034.38	3758338.88	1.50E-04	5.55E-03	9.11E-03	6.63E-03	4.16E-03	2.04E-03	1.54E-03	5.90E-04	1.40E-04	2.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
371091.65	3754274.94	1.40E-04	2.50E-03	4.68E-03	4.73E-03	2.65E-03	1.09E-03	7.90E-04	1.50E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
371165.78	3758547.83	1.20E-04	4.02E-03	7.05E-03	5.26E-03	3.36E-03	1.64E-03	1.06E-03	3.90E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
372241.00	3757383.00	1.06E-03	5.92E-02	1.21E-01	3.90E-02	2.24E-02	1.11E-02	8.82E-03	5.99E-03	6.90E-04	1.20E-04	7.50E-04	0.00E+00	0.00E+00	0.00E+00
372703.01	3761799.64	2.00E-05	6.40E-04	1.17E-03	9.00E-04	6.10E-04	3.00E-04	1.70E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
374194.97	3754806.86	6.00E-05	1.11E-03	2.56E-03	2.39E-03	1.53E-03	7.60E-04	3.00E-04	8.00E-05	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
374697.43	3760305.50	6.00E-05	1.57E-03	2.70E-03	2.02E-03	1.36E-03	7.00E-04	4.10E-04	1.40E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
375423.74	3758805.14	1.60E-04	5.41E-03	1.04E-02	7.59E-03	5.71E-03	3.02E-03	1.42E-03	5.30E-04	1.00E-04	2.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
375433.42	3757541.59	2.40E-04	4.34E-03	1.01E-02	9.42E-03	7.03E-03	4.22E-03	1.19E-03	3.60E-04	8.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
378090.06	3758535.33	1.20E-04	2.62E-03	5.27E-03	4.46E-03	3.23E-03	1.78E-03	7.20E-04	2.40E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
368494.88	3756671.28	1.28E-03	2.11E-02	3.37E-02	3.38E-02	1.48E-02	5.75E-03	6.72E-03	8.40E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
370394.80	3756845.73	6.49E-03	1.94E-01	3.58E-01	6.62E-01	4.97E-01	1.44E-01	6.62E-02	7.57E-03	5.70E-04	9.00E-05	6.20E-04	0.00E+00	0.00E+00	0.00E+00
368983.23	3754581.57	2.20E-04	3.93E-03	7.18E-03	7.68E-03	4.01E-03	1.56E-03	1.34E-03	2.10E-04	3.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
369216.41	3758422.45	1.60E-04	3.47E-03	6.39E-03	6.67E-03	4.22E-03	1.74E-03	1.02E-03	2.20E-04	7.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
369532.57	3753391.67	4.40E-04	7.91E-03	1.48E-02	1.52E-02	7.21E-03	2.67E-03	2.44E-03	3.80E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
369574.04	3758166.39	2.00E-04	4.06E-03	8.55E-03	8.70E-03	5.35E-03	2.38E-03	1.27E-03	2.90E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369581.37	3758516.07	1.50E-04	3.32E-03	6.10E-03	5.78E-03	3.39E-03	1.42E-03	9.00E-04	2.20E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369830.08	3755394.84	4.10E-04	7.51E-03	1.40E-02	1.49E-02	7.81E-03	3.04E-03	2.80E-03	4.10E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
370114.12	3758186.53	1.60E-04	4.65E-03	9.07E-03	8.66E-03	5.83E-03	2.45E-03	1.25E-03	3.40E-04	1.30E-04	2.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
371021.69	3757820.60	3.60E-04	1.47E-02	2.28E-02	1.53E-02	9.19E-03	4.24E-03	3.74E-03	1.24E-03	4.60E-04	8.00E-05	5.00E-04	0.00E+00	0.00E+00	0.00E+00
366809.77	3757837.27	2.40E-04	4.32E-03	7.27E-03	7.51E-03	3.87E-03	1.56E-03	1.35E-03	2.10E-04	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
366843.26	3757860.52	2.30E-04	4.27E-03	7.20E-03	7.44E-03	3.85E-03	1.55E-03	1.33E-03	2.00E-04	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
366900.00	3758500.00	1.40E-04	2.77E-03	4.82E-03	4.85E-03	2.64E-03	1.10E-03	8.20E-04	1.50E-04	2.00E-05	0.00E+00	1.80E-05	0.00E+00	0.00E+00	0.00E+00
366900.00	3762500.00	3.00E-05	6.20E-04	1.19E-03	1.13E-03	7.30E-04	3.40E-04	1.80E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
366900.00	3763500.00	2.00E-05	4.50E-04	9.00E-04	8.50E-04	5.60E-04	2.60E-04	1.30E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
366900.00	3764500.00	2.00E-05	3.50E-04	6.40E-04	5.90E-04	3.80E-04	1.90E-04	1.00E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
366982.41	3757958.65	2.20E-04	4.11E-03	6.97E-03	7.21E-03	3.79E-03	1.54E-03	1.27E-03	2.00E-04	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
367163.97	3758028.80	2.10E-04	4.06E-03	6.96E-03	7.14E-03	3.80E-03	1.55E-03	1.22E-03	2.00E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
367275.38	3757999.92	2.20E-04	4.24E-03	7.25E-03	7.47E-03	3.99E-03	1.63E-03	1.30E-03	2.10E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
367395.04	3758065.94	2.10E-04	4.10E-03	7.03E-03	7.24E-03	3.89E-03	1.58E-03	1.25E-03	2.10E-04	3.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
367880.40	3758145.84	2.20E-04	4.29E-03	7.45E-03	7.41E-03	3.98E-03	1.65E-03	1.30E-03	2.30E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
367900.00	3761500.00	3.00E-05	7.90E-04	1.55E-03	1.44E-03	9.40E-04	4.40E-04	2.20E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
367900.00	3762500.00	2.00E-05	5.60E-04	1.13E-03	1.05E-03	7.00E-04	3.30E-04	1.50E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367900.00	3764500.00	1.00E-05	3.50E-04	7.20E-04	6.60E-04	4.40E-04	2.10E-04	1.00E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368068.97	3758068.94	2.40E-04	4.78E-03	8.29E-03	8.23E-03	4.41E-03	1.82E-03	1.45E-03	2.50E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
368782.48	3758015.85	2.60E-04	5.16E-03	8.92E-03	9.06E-03	4.96E-03	2.04E-03	1.56E-03	2.70E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
368416.83	3757988.39	2.70E-04	5.45E-03	9.46E-03	9.49E-03	5.24E-03	2.17E-03	1.65E-03	2.90E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
368577.94	3757979.23	3.00E-04	5.99E-03	1.04E-02	1.06E-02	5.84E-03	2.39E-03	1.75E-03	3.10E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
368764.68	3758079.93	2.70E-04	5.49E-03	9.57E-03	9.64E-03	5.37E-03	2.22E-03	1.61E-03	3.00E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
368900.00	3754500.00	2.00E-04	3.72E-03	6.78E-03	7.27E-03	3.81E-03	1.49E-03	1.27E-03	2.00E-04	3.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
368900.00	3759500.00	7.00E-05	1.75E-03	3.13E-03	2.79E-03	1.65E-03	7.40E-04	4.80E-04	1.30E-04	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
368900.00	3761500.00	3.00E-05	7.50E-04	1.53E-03	1.42E-03	9.50E-04	4.50E-04	2.00E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
368900.00	3762500.00	2.00E-05	5.60E-04	1.14E-03	1.05E-03	7.00E-04	3.30E-04	1.50E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368900.00	3763500.00	2.00E-05	4.40E-04	9.00E-04	8.30E-04	5.50E-04	2.60E-04	1.20E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368900.00	3764500.00	2.00E-05	3.50E-04	7.30E-04	6.70E-04	4.50E-04	2.10E-04	1.00E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368944.10	3758186.12	2.40E-04	5.05E-03	8.93E-03	9.04E-03	5.18E-03	2.14E-03	1.53E-03	2.90E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
369206.25	3758147.26	2.20E-04	4.92E-03	8.91E-03	9.27E-03	5.74E-03	2.37E-03	1.50E-03	3.00E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369268.49	3758066.34	2.40E-04	5.37E-03	9.71E-03	1.01E-02	6.29E-03	2.59E-03	1.63E-03	3.30E-04	8.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369333.85	3757999.43	2.60E-04	5.88E-03	1.07E-02	1.12E-02	7.02E-03	2.88E-03	1.76E-03	3.50E-04	8.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
369425.60	3758641.99	1.30E-04	2.92E-03	5.38E-03	5.17E-03	3.08E-03	1.29E-03	8.10E-04	2.00E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
369599.53	3758634.67	1.30E-04	3.13E-03	5.67E-03	5.23E-03	3.07E-03	1.31E-03	8.40E-04	2.20E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
369775.29	3758632.83	1.30E-04	3.26E-03	5.80E-03	5.19E-03	3.12E-03	1.36E-03	9.00E-04	2.40E-04	7.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
369834.01	3758329.23	1.60E-04	4.19E-03	8.04E-03	7.84E-03	5.00E-03	2.07E-03	1.15E-03	2.90E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
369900.00	3754500.00	1.80E-04	3.20E-03	6.12E-03	6.65E-03	3.75E-03	1.51E-03	1.12E-03	1.70E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
369900.00	3758500.00	1.30E-04	3.64E-03	6.87E-03	6.45E-03	4.20E-03	1.79E-03	9.80E-04	2.70E-04	8.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
369900.00	3759500.00	6.00E-05	1.76E-03	3.25E-03	2.83E-03	1.89E-03	9.00E-04	5.20E-04	1.60E-04	3.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Gasoline Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
369900.00	3761500.00	3.00E-05	6.90E-04	1.48E-03	1.38E-03	9.50E-04	4.40E-04	1.90E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369900.00	3762500.00	2.00E-05	5.10E-04	1.10E-03	1.02E-03	7.00E-04	3.30E-04	1.40E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369900.00	3764500.00	1.00E-05	3.20E-04	6.90E-04	6.30E-04	4.30E-04	2.00E-04	9.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370006.10	3758331.16	1.40E-04	3.82E-03	7.04E-03	6.53E-03	4.29E-03	1.85E-03	1.12E-03	3.00E-04	1.00E-04	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
370183.69	3758338.49	1.20E-04	3.95E-03	7.28E-03	6.53E-03	4.39E-03	1.90E-03	1.01E-03	3.10E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
370425.35	3758336.66	1.30E-04	4.59E-03	8.59E-03	7.27E-03	4.78E-03	2.07E-03	1.12E-03	3.90E-04	1.30E-04	2.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
370701.79	3758334.82	1.30E-04	5.26E-03	9.37E-03	7.28E-03	4.63E-03	2.09E-03	1.29E-03	4.90E-04	1.40E-04	2.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
370780.52	3758327.50	1.40E-04	5.51E-03	9.69E-03	7.39E-03	4.66E-03	2.14E-03	1.37E-03	5.30E-04	1.50E-04	2.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
370900.00	3759500.00	5.00E-05	1.40E-03	2.75E-03	2.33E-03	1.68E-03	8.50E-04	3.70E-04	1.30E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
370900.00	3760500.00	3.00E-05	8.40E-04	1.69E-03	1.43E-03	9.90E-04	4.90E-04	2.20E-04	8.00E-05	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
370900.00	3762500.00	2.00E-05	4.60E-04	1.02E-03	8.90E-04	6.20E-04	2.90E-04	1.10E-04	4.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370900.00	3763500.00	1.00E-05	3.60E-04	7.90E-04	6.90E-04	4.80E-04	2.30E-04	9.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370900.00	3764500.00	1.00E-05	2.90E-04	6.40E-04	5.60E-04	3.90E-04	1.90E-04	7.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371295.29	3758036.94	2.70E-04	1.20E-02	1.80E-02	1.17E-02	7.18E-03	3.57E-03	3.38E-03	1.36E-03	2.50E-04	4.00E-05	2.70E-04	0.00E+00	0.00E+00	0.00E+00
371421.46	3758118.19	2.50E-04	1.05E-02	1.64E-02	1.08E-02	6.68E-03	3.30E-03	2.85E-03	1.17E-03	2.10E-04	3.00E-05	2.30E-04	0.00E+00	0.00E+00	0.00E+00
371550.51	3758209.00	2.20E-04	9.32E-03	1.51E-02	9.97E-03	6.14E-03	2.98E-03	2.30E-03	9.40E-04	1.70E-04	3.00E-05	1.90E-04	0.00E+00	0.00E+00	0.00E+00
371685.28	3758299.81	2.00E-04	8.28E-03	1.40E-02	9.25E-03	5.86E-03	2.86E-03	2.05E-03	8.30E-04	1.50E-04	2.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
371754.11	3758291.20	2.10E-04	8.71E-03	1.46E-02	9.52E-03	6.11E-03	3.03E-03	2.20E-03	9.10E-04	1.50E-04	3.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
371807.64	3758213.78	2.40E-04	1.06E-02	1.71E-02	1.06E-02	6.73E-03	3.41E-03	2.71E-03	1.16E-03	1.70E-04	3.00E-05	1.90E-04	0.00E+00	0.00E+00	0.00E+00
371874.55	3758164.07	2.60E-04	1.24E-02	1.94E-02	1.16E-02	7.29E-03	3.76E-03	3.21E-03	1.41E-03	1.90E-04	3.00E-05	2.10E-04	0.00E+00	0.00E+00	0.00E+00
371900.00	3758500.00	1.70E-04	6.26E-03	1.10E-02	7.67E-03	5.19E-03	2.60E-03	1.63E-03	6.50E-04	1.10E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
371900.00	3759500.00	7.00E-05	2.11E-03	4.07E-03	3.12E-03	2.13E-03	1.05E-03	5.30E-04	1.90E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
371900.00	3762500.00	2.00E-05	4.70E-04	8.50E-04	6.80E-04	4.70E-04	2.30E-04	1.20E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371900.00	3763500.00	1.00E-05	3.00E-04	6.20E-04	6.70E-04	4.70E-04	2.30E-04	1.00E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371933.81	3758104.81	2.80E-04	1.51E-02	2.28E-02	1.29E-02	8.01E-03	4.21E-03	3.91E-03	1.77E-03	2.20E-04	4.00E-05	2.40E-04	0.00E+00	0.00E+00	0.00E+00
372241.00	3757883.00	4.20E-04	5.22E-02	6.07E-02	2.41E-02	1.28E-02	8.41E-03	1.28E-02	7.11E-03	3.80E-04	6.00E-05	4.20E-04	0.00E+00	0.00E+00	0.00E+00
372241.00	3757983.00	3.60E-04	2.93E-02	3.90E-02	1.78E-02	1.11E-02	6.47E-03	7.79E-03	3.91E-03	3.10E-04	5.00E-05	3.40E-04	0.00E+00	0.00E+00	0.00E+00
372341.00	3757883.00	4.30E-04	5.39E-02	6.21E-02	2.51E-02	1.38E-02	8.76E-03	1.25E-02	6.69E-03	3.70E-04	6.00E-05	4.00E-04	0.00E+00	0.00E+00	0.00E+00
372341.00	3757983.00	3.70E-04	3.15E-02	4.08E-02	1.85E-02	1.19E-02	6.91E-03	8.20E-03	4.10E-03	3.30E-04	5.00E-05	3.30E-04	0.00E+00	0.00E+00	0.00E+00
372900.00	3753500.00	6.00E-05	1.16E-03	2.46E-03	2.38E-03	1.43E-03	6.30E-04	3.20E-04	8.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3754500.00	1.00E-04	1.68E-03	3.58E-03	3.43E-03	2.04E-03	9.30E-04	4.70E-04	1.20E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3759500.00	8.00E-05	2.37E-03	4.53E-03	3.34E-03	2.24E-03	1.11E-03	6.20E-04	2.10E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3760500.00	4.00E-05	1.26E-03	2.49E-03	1.91E-03	1.29E-03	6.40E-04	3.20E-04	1.10E-04	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3761500.00	3.00E-05	7.30E-04	1.38E-03	1.07E-03	7.30E-04	3.60E-04	1.90E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3762500.00	2.00E-05	4.00E-04	7.10E-04	5.60E-04	3.80E-04	1.90E-04	1.10E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3763500.00	2.00E-05	3.50E-04	6.20E-04	5.20E-04	3.50E-04	1.80E-04	9.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3764500.00	1.00E-05	2.90E-04	5.70E-04	5.10E-04	3.50E-04	1.70E-04	8.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3755500.00	2.00E-05	3.50E-04	7.00E-04	6.40E-04	3.90E-04	1.80E-04	1.00E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3756500.00	3.00E-05	5.20E-04	9.90E-04	9.20E-04	5.60E-04	2.60E-04	1.50E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3757500.00	5.00E-05	7.80E-04	1.49E-03	1.34E-03	8.60E-04	4.40E-04	2.20E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3758500.00	6.00E-05	1.08E-03	2.05E-03	1.79E-03	1.21E-03	6.40E-04	3.00E-04	9.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3759500.00	6.00E-05	1.28E-03	2.41E-03	2.03E-03	1.42E-03	7.60E-04	3.60E-04	1.20E-04	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3760500.00	6.00E-05	1.31E-03	2.44E-03	2.01E-03	1.40E-03	7.50E-04	3.60E-04	1.20E-04	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3761500.00	5.00E-05	1.17E-03	2.14E-03	1.72E-03	1.19E-03	6.20E-04	3.20E-04	1.10E-04	2.00E-05	0.00E+00	3.00E

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Gasoline Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
373541.00	3756983.00	4.50E-04	6.23E-03	1.67E-02	1.70E-02	1.25E-02	1.00E-02	1.91E-03	5.30E-04	1.30E-04	2.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
373541.00	3757083.00	4.50E-04	6.93E-03	2.05E-02	2.10E-02	1.53E-02	1.72E-02	2.06E-03	5.70E-04	1.50E-04	3.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
373541.00	3757183.00	4.60E-04	7.85E-03	2.86E-02	3.19E-02	2.51E-02	3.49E-02	2.27E-03	6.40E-04	1.70E-04	3.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
373541.00	3757283.00	4.60E-04	9.05E-03	3.88E-02	5.94E-02	5.60E-02	9.66E-02	2.58E-03	7.60E-04	1.90E-04	3.00E-05	2.00E-04	0.00E+00	0.00E+00	0.00E+00
373541.00	3757383.00	4.60E-04	1.05E-02	4.91E-02	7.78E-02	7.00E-02	8.82E-02	2.92E-03	9.20E-04	2.00E-04	3.00E-05	2.20E-04	0.00E+00	0.00E+00	0.00E+00
373541.00	3757483.00	4.60E-04	1.23E-02	6.52E-02	9.10E-02	8.07E-02	5.61E-02	3.30E-03	1.12E-03	2.10E-04	4.00E-05	2.30E-04	0.00E+00	0.00E+00	0.00E+00
373541.00	3757583.00	4.40E-04	1.39E-02	6.91E-02	9.97E-02	1.05E-01	7.37E-02	3.60E-03	1.32E-03	2.20E-04	4.00E-05	2.40E-04	0.00E+00	0.00E+00	0.00E+00
373541.00	3757683.00	4.20E-04	1.51E-02	6.36E-02	8.68E-02	9.94E-02	7.18E-02	3.83E-03	1.49E-03	2.20E-04	4.00E-05	2.40E-04	0.00E+00	0.00E+00	0.00E+00
366455.27	3763213.67	2.00E-05	5.20E-04	1.00E-03	9.50E-04	6.20E-04	2.90E-04	1.50E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
366669.62	3763342.53	2.00E-05	4.90E-04	9.50E-04	9.00E-04	5.90E-04	2.80E-04	1.40E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
366671.31	3762769.21	3.00E-05	5.80E-04	1.12E-03	1.06E-03	6.80E-04	3.20E-04	1.70E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367494.53	3758314.82	1.80E-04	3.51E-03	6.09E-03	6.14E-03	3.34E-03	1.39E-03	1.07E-03	1.90E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
367575.16	3764900.80	1.00E-05	3.30E-04	6.60E-04	6.10E-04	4.00E-04	1.90E-04	9.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367638.49	3757975.16	2.40E-04	4.68E-03	8.01E-03	8.27E-03	4.45E-03	1.81E-03	1.42E-03	2.30E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
367728.62	3761967.19	3.00E-05	6.80E-04	1.34E-03	1.25E-03	8.20E-04	3.80E-04	1.90E-04	5.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
367787.59	3758292.62	1.90E-04	3.77E-03	6.54E-03	6.46E-03	3.49E-03	1.46E-03	1.16E-03	2.10E-04	3.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
367831.34	3763245.91	2.00E-05	4.60E-04	9.30E-04	8.60E-04	5.80E-04	2.70E-04	1.30E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367900.00	3758500.00	1.60E-04	3.14E-03	5.54E-03	5.64E-03	3.25E-03	1.36E-03	9.50E-04	1.80E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
367926.08	3763311.16	2.00E-05	4.60E-04	9.20E-04	8.50E-04	5.60E-04	2.70E-04	1.30E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367964.98	3758232.97	2.10E-04	4.07E-03	7.07E-03	7.03E-03	3.84E-03	1.60E-03	1.25E-03	2.20E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
367976.37	3763336.74	2.00E-05	4.50E-04	9.10E-04	8.40E-04	5.60E-04	2.70E-04	1.20E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367978.91	3758390.10	1.80E-04	3.51E-03	6.15E-03	6.23E-03	3.54E-03	1.48E-03	1.07E-03	2.00E-04	3.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
368188.78	3758591.47	1.60E-04	3.20E-03	5.66E-03	5.71E-03	3.19E-03	1.32E-03	9.40E-04	1.80E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
368501.11	3763632.38	3.00E-05	6.28E-04	1.35E-03	9.00E-04	4.30E-04	1.60E-04	2.00E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
368505.49	3758571.22	1.70E-04	3.36E-03	5.92E-03	5.88E-03	3.23E-03	1.35E-03	1.03E-03	1.90E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
368673.29	3761677.69	3.00E-05	7.10E-04	1.44E-03	1.33E-03	8.90E-04	4.20E-04	1.90E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
368693.42	3758359.47	2.10E-04	4.20E-03	7.42E-03	7.43E-03	4.15E-03	1.72E-03	1.27E-03	2.40E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
368842.92	3761590.39	3.00E-05	7.30E-04	1.49E-03	1.37E-03	9.20E-04	4.30E-04	2.00E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
368869.11	3754097.89	1.50E-04	2.72E-03	5.13E-03	5.34E-03	2.77E-03	1.13E-03	8.60E-04	1.40E-04	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
368869.83	3765067.00	1.00E-05	3.10E-04	6.40E-04	6.00E-04	4.00E-04	1.90E-04	9.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368969.99	3761647.20	3.00E-05	7.20E-04	1.47E-03	1.35E-03	9.00E-04	4.30E-04	1.90E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
368970.54	3754677.64	2.30E-04	4.26E-03	7.74E-03	8.32E-03	4.34E-03	1.68E-03	1.48E-03	2.30E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
369007.11	3762513.11	2.00E-05	5.60E-04	1.14E-03	1.05E-03	7.00E-04	3.30E-04	1.50E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369227.99	3762251.91	2.00E-05	6.00E-04	1.23E-03	1.13E-03	7.50E-04	3.60E-04	1.60E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369242.37	3754695.62	2.40E-04	4.25E-03	7.76E-03	8.23E-03	4.25E-03	1.66E-03	1.41E-03	2.20E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
369456.98	3762567.48	2.00E-05	5.30E-04	1.12E-03	1.04E-03	6.90E-04	3.30E-04	1.50E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369504.00	3754702.08	2.40E-04	4.25E-03	7.83E-03	8.26E-03	4.34E-03	1.73E-03	1.44E-03	2.20E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
369767.91	3761150.98	3.00E-05	8.10E-04	1.71E-03	1.59E-03	1.09E-03	5.10E-04	2.20E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369809.34	3764567.65	1.00E-05	3.20E-04	6.80E-04	6.30E-04	4.30E-04	2.00E-04	9.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369845.18	3754154.97	1.40E-04	2.44E-03	4.71E-03	5.12E-03	2.90E-03	1.17E-03	8.80E-04	1.30E-04	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
369848.41	3753976.49	1.30E-04	2.31E-03	4.45E-03	4.80E-03	2.71E-03	1.09E-03	8.10E-04	1.30E-04	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
370097.88	3760074.31	4.00E-05	1.15E-03	2.30E-03	2.10E-03	1.49E-03	7.10E-04	3.30E-04	1.00E-04	2.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370150.95	3754699.75	1.90E-04	3.44E-03	6.77E-03	7.38E-03	4.19E-03	1.66E-03	1.14E-03	1.90E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
370192.96	3758860.70	8.00E-05	2.68E-03	4.75E-03	3.99E-03	2.70E-03	1.25E-03	7.30E-04	2.60E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
370243.17	3759622.98	4.00E-05	1.36E-03	2.74E-03	2.41E-03	1.67E-03	8.00E-04	3.70E-04	1.20E-04	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
370246.20	3754243.12	1.40E-04	2.52E-03	4.97E-03	5.28E-03	2.97E-03	1.19E-03	8.00E-04	1.40E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
370290.74	3759464.60	5.00E-05	1.50E-03	3.00E-03	2.59E-03	1.77E-03	8.50E-04	4.00E-04	1.40E-04	3.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
370608.78	3762239.97	2.00E-05	5.00E-04	1.10E-03	9.90E-04	6.90E-04	3.30E-04	1.20E-04	4.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370614.80	3762181.53	2.00E-05	5.00E-04	1.12E-03	1.00E-03	7.00E-04	3.30E-04	1.20E-04	4.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370625.96	3761759.08	1.00E-05	4.20E-04	7.50E-04	6.70E-04	4.60E-04	2.20E-04	9.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370723.56	3763867.78	1.00E-05	3.30E-04	7.30E-04	6.50E-04	4.50E-04	2.10E-04	8.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370968.58	3759443.63	5.00E-05	1.47E-03	2.86E-03	2.42E-03	1.75E-03	8.80E-04	3.80E-04	1.30E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
371139.14	3758179.30	2.00E-04	7.88E-03	1.27E-02	9.07E-03	5.67E-03	2.76E-03	2.23E-03	8.60E-04	1.90E-04	3.00E-05	2.00E-04	0.00E+00	0.00E+00	0.00E+00
371516.05	3762577.75	2.00E-05	4.70E-04	1.01E-03	8.40E-04	5.90E-04	2.80E-04	1.20E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371721.40	3759371.61	7.00E-05	2.23E-03	4.30E-03	3.39E-03	2.31E-03	1.12E-03	5.50E-04	2.00E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
371973.81	3758892.65	1.10E-04	3.82E-03	6.98E-03	5.15E-03	3.54E-03	1.76E-03	9.80E-04	3.70E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
372687.72	3759513.01	7.00E-05	2.32E-03	4.41E-03	3.25E-03	2.17E-03	1.08E-03	6.00E-04	2.10E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
372943.49	3761051.66	3.00E-05	9.10E-04	1.70E-03	1.30E-03	8.80E-04	4.30E-04	2.30E-04	8.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373546.52	3760907.48	4.00E-05	1.01E-03	1.89E-03	1.49E-03	1.01E-03	5.10E-04	2.70E-04	9.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373736.60	3765603.93	7.50E-04	3.62E-03	7.74E-03	7.55E-03	5.10E-03	2.93E-03	9.40E-04	2.30E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
373758.20	3758043.23	3.20E-04	1.34E-02	3.07E-02	2.32E-02	2.15E-02	1.20E-02	3.42E-03	1.40E-03	1.80E-04	3.00E-05	2.00E-04	0.00E+00	0.00E+00	0.00E+00
373781.58	3753802.14	2.90E-04	2.01E-03	4.46E-03	4.74E-03	2.71E-03	1.44E-03	5.20E-04	1.50E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
373814.20	3756040.57	5.90E-04	2.51E-03	5.11E-03	5.15E-03	3.18E-03	1.73E-03	6.10E-04	1.60E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373990.06	3753826.14	5.00E-05	1.01E-03	2.20E-03	2.05E-03	1.25E-03	5.80E-04	2.80E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Gasoline Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
374057.73	3758196.53	2.70E-04	1.07E-02	2.26E-02	1.67E-02	1.44E-02	7.96E-03	2.76E-03	1.10E-03	1.50E-04	2.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
374270.95	3758673.42	1.80E-04	7.06E-03	1.24E-02	8.26E-03	6.05E-03	3.19E-03	1.86E-03	7.10E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
374561.05	3757642.94	3.00E-04	7.08E-03	1.94E-02	1.94E-02	1.63E-02	1.04E-02	1.91E-03	6.40E-04	1.30E-04	2.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
374688.84	3758984.90	1.40E-04	5.16E-03	8.91E-03	6.12E-03	4.35E-03	2.26E-03	1.36E-03	5.10E-04	8.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
374693.96	3758983.17	1.40E-04	5.17E-03	8.93E-03	6.14E-03	4.36E-03	2.27E-03	1.37E-03	5.10E-04	8.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
374717.46	3762574.39	1.00E-05	3.00E-04	5.90E-04	5.00E-04	3.50E-04	1.80E-04	9.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374503.80	3764537.77	1.00E-05	3.30E-04	6.50E-04	5.20E-04	3.60E-04	1.80E-04	8.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374574.97	3760555.10	5.00E-05	1.36E-03	2.45E-03	1.86E-03	1.25E-03	6.20E-04	3.70E-04	1.20E-04	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
374718.04	3758204.95	2.00E-04	5.32E-03	1.20E-02	1.02E-02	8.06E-03	4.63E-03	1.43E-03	5.00E-04	1.00E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
375902.79	3764940.52	1.00E-05	3.10E-04	6.40E-04	5.30E-04	3.60E-04	1.80E-04	8.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375908.38	3763938.71	1.00E-05	3.40E-04	7.10E-04	6.00E-04	4.10E-04	2.00E-04	1.00E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375920.60	3762083.39	2.00E-05	5.80E-04	1.00E-03	7.80E-04	5.00E-04	2.40E-04	1.60E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
376709.15	3763388.48	1.10E-04	1.26E-03	2.51E-03	2.40E-03	1.43E-03	6.90E-04	3.60E-04	8.00E-05	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
376814.39	3754856.21	3.00E-05	5.90E-04	1.30E-03	1.21E-03	7.70E-04	3.70E-04	1.70E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377050.15	3761774.29	3.00E-05	8.40E-04	1.54E-03	1.21E-03	8.20E-04	4.20E-04	2.30E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
377052.34	3761911.90	3.00E-05	7.80E-04	1.44E-03	1.12E-03	7.70E-04	3.90E-04	2.10E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
377227.14	3756422.42	9.00E-05	1.15E-03	2.24E-03	2.15E-03	1.27E-03	5.90E-04	3.30E-04	8.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
377237.88	3763993.21	2.00E-05	4.30E-04	7.80E-04	6.30E-04	4.20E-04	2.00E-04	1.20E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377313.01	3756205.13	8.00E-05	1.00E-03	1.99E-03	1.89E-03	1.13E-03	5.30E-04	2.90E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
377330.56	3760754.60	5.00E-05	1.56E-03	2.69E-03	2.02E-03	1.36E-03	6.90E-04	4.20E-04	1.40E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
377342.37	3764027.27	2.00E-05	4.30E-04	7.80E-04	6.30E-04	4.10E-04	2.00E-04	1.20E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377388.19	3762578.39	2.00E-05	6.30E-04	1.17E-03	9.00E-04	6.10E-04	3.10E-04	1.70E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377563.47	3760340.44	7.00E-05	1.96E-03	3.50E-03	2.60E-03	1.81E-03	9.30E-04	5.20E-04	1.80E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
377753.42	3759272.76	1.70E-04	2.91E-03	5.66E-03	4.51E-03	3.25E-03	1.72E-03	1.90E-04	2.70E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
377839.66	3764649.02	1.00E-05	3.70E-04	6.80E-04	5.50E-04	3.60E-04	1.70E-04	1.00E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377841.65	3762246.94	3.00E-05	7.60E-04	1.37E-03	1.09E-03	7.40E-04	3.80E-04	2.10E-04	7.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
377908.39	3762502.03	3.00E-05	6.80E-04	1.25E-03	9.90E-04	6.70E-04	3.40E-04	1.80E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377916.00	3755241.12	3.00E-05	5.50E-04	1.17E-03	1.10E-03	6.80E-04	3.20E-04	1.60E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377924.86	3763642.88	2.00E-05	4.70E-04	8.70E-04	6.70E-04	4.50E-04	2.30E-04	1.20E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377967.05	3762224.48	3.00E-05	7.70E-04	1.40E-03	1.10E-03	7.50E-04	3.80E-04	2.10E-04	7.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
378003.52	3753139.05	2.00E-05	3.60E-04	7.80E-04	7.20E-04	4.60E-04	2.20E-04	1.00E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
378022.11	3755897.25	5.00E-05	6.70E-04	1.30E-03	1.25E-03	7.30E-04	3.40E-04	2.00E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
378066.59	3764132.90	4.00E-05	1.15E-03	2.01E-03	1.54E-03	1.03E-03	5.20E-04	3.10E-04	1.00E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
378209.66	3764122.39	2.00E-05	4.20E-04	7.70E-04	6.00E-04	4.00E-04	2.00E-04	1.10E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
378212.33	3753511.52	2.00E-05	3.60E-04	7.90E-04	7.30E-04	4.70E-04	2.20E-04	1.00E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
378223.51	3760237.39	7.00E-05	2.06E-03	3.76E-03	2.85E-03	2.01E-03	1.05E-03	5.50E-04	1.90E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
378326.90	3764105.95	8.00E-05	2.24E-03	3.77E-03	3.00E-03	2.00E-03	1.10E-03	4.40E-04	1.50E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
378366.51	3755075.26	3.00E-05	4.50E-04	9.20E-04	8.90E-04	5.40E-04	2.50E-04	1.30E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
378370.05	3759869.86	9.00E-05	2.39E-03	4.46E-03	3.47E-03	2.47E-03	1.29E-03	6.50E-04	2.20E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
378781.96	3760336.17	7.00E-05	1.96E-03	3.58E-03	2.75E-03	1.94E-03	1.02E-03	5.30E-04	1.80E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
378862.39	3757229.87	9.00E-05	1.27E-03	2.47E-03	2.30E-03	1.45E-03	7.30E-04	3.60E-04	9.00E-05	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
366900.00	3759500.00	8.00E-05	1.65E-03	2.93E-03	2.94E-03	1.67E-03	7.10E-04	5.00E-04	1.00E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
367900.00	3759500.00	9.00E-05	1.86E-03	3.33E-03	3.29E-03	1.93E-03	8.20E-04	5.60E-04	1.20E-04	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
368900.00	3760500.00	6.00E-05	1.21E-03	2.15E-03	2.07E-03	1.22E-03	5.30E-04	3.60E-04	8.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Gasoline Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
373900.00	3762500.00	2.00E-05	3.90E-04	7.10E-04	5.60E-04	3.70E-04	1.90E-04	9.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373900.00	3763500.00	1.00E-05	2.80E-04	5.20E-04	4.40E-04	3.00E-04	1.50E-04	8.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374900.00	3753500.00	4.00E-05	7.30E-04	1.62E-03	1.54E-03	9.70E-04	4.50E-04	2.10E-04	5.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
374900.00	3758500.00	2.00E-04	7.02E-03	1.42E-02	1.05E-02	8.33E-03	4.53E-03	1.84E-03	7.00E-04	1.20E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
375900.00	3754500.00	3.00E-05	6.60E-04	1.46E-03	1.34E-03	8.60E-04	4.20E-04	1.80E-04	5.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
375900.00	3757500.00	2.10E-04	3.53E-03	7.77E-03	7.17E-03	5.15E-03	2.99E-03	9.70E-04	2.90E-04	7.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
375900.00	3758500.00	1.80E-04	5.09E-03	1.08E-02	8.76E-03	6.81E-03	3.78E-03	1.36E-03	4.80E-04	9.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
375900.00	3759500.00	1.00E-04	3.24E-03	5.68E-03	4.04E-03	2.83E-03	1.46E-03	8.50E-04	3.10E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3753500.00	2.00E-05	4.60E-04	1.00E-03	9.10E-04	5.80E-04	2.80E-04	1.30E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3754500.00	3.00E-05	5.40E-04	1.18E-03	1.09E-03	7.00E-04	3.40E-04	1.50E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3757500.00	1.60E-04	2.56E-03	5.35E-03	4.88E-03	3.35E-03	1.83E-03	7.10E-04	2.00E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3763500.00	2.00E-05	4.80E-04	8.60E-04	6.90E-04	4.40E-04	2.20E-04	1.30E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377900.00	3758500.00	1.20E-04	2.72E-03	5.49E-03	4.65E-03	3.38E-03	1.86E-03	7.50E-04	2.50E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
378900.00	3754500.00	2.00E-05	3.50E-04	7.20E-04	6.80E-04	4.20E-04	2.00E-04	1.00E-04	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
378900.00	3761500.00	4.00E-05	1.17E-03	2.06E-03	1.57E-03	1.07E-03	5.40E-04	3.20E-04	1.10E-04	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
379900.00	3753500.00	1.00E-05	2.90E-04	6.10E-04	5.70E-04	3.60E-04	1.70E-04	8.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
379900.00	3758500.00	9.00E-05	1.81E-03	3.55E-03	3.06E-03	2.15E-03	1.16E-03	5.00E-04	1.60E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
380900.00	3764500.00	2.00E-05	4.10E-04	7.50E-04	6.10E-04	4.10E-04	2.10E-04	1.20E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
381900.00	3753500.00	1.00E-05	2.10E-04	4.20E-04	3.90E-04	2.40E-04	1.10E-04	6.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3758500.00	7.00E-05	1.26E-03	2.42E-03	2.10E-03	1.44E-03	7.70E-04	3.50E-04	1.10E-04	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
383900.00	3758500.00	5.00E-05	9.30E-04	1.76E-03	1.54E-03	1.04E-03	5.40E-04	2.60E-04	8.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
383900.00	3759500.00	5.00E-05	1.12E-03	2.10E-03	1.78E-03	1.23E-03	6.60E-04	3.20E-04	1.00E-04	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
383900.00	3760500.00	5.00E-05	1.17E-03	2.17E-03	1.80E-03	1.26E-03	6.70E-04	3.30E-04	1.10E-04	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
383900.00	3761500.00	5.00E-05	1.11E-03	2.03E-03	1.65E-03	1.16E-03	6.00E-04	3.10E-04	1.00E-04	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
368085.00	3755395.00	4.90E-04	8.33E-03	1.36E-02	1.39E-02	6.56E-03	2.58E-03	2.82E-03	3.80E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
368185.00	3755395.00	5.20E-04	9.08E-03	1.51E-02	1.55E-02	7.54E-03	2.97E-03	3.06E-03	4.20E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
368285.00	3755395.00	5.30E-04	9.05E-03	1.48E-02	1.52E-02	7.20E-03	2.81E-03	3.13E-03	4.20E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
368385.00	3755395.00	5.40E-04	9.33E-03	1.53E-02	1.57E-02	7.49E-03	2.91E-03	3.26E-03	4.40E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
368485.00	3755395.00	5.50E-04	9.53E-03	1.57E-02	1.62E-02	7.75E-03	3.01E-03	3.38E-03	4.60E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
368585.00	3755395.00	5.60E-04	9.71E-03	1.60E-02	1.67E-02	8.04E-03	3.10E-03	3.51E-03	4.80E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
368685.00	3755395.00	5.70E-04	9.85E-03	1.64E-02	1.71E-02	8.33E-03	3.20E-03	3.62E-03	4.90E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
368785.00	3755395.00	5.60E-04	9.80E-03	1.64E-02	1.73E-02	8.51E-03	3.25E-03	3.66E-03	5.00E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
368885.00	3755395.00	5.50E-04	9.63E-03	1.62E-02	1.73E-02	8.62E-03	3.28E-03	3.66E-03	5.00E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
368985.00	3755395.00	5.20E-04	9.33E-03	1.59E-02	1.71E-02	8.64E-03	3.26E-03	3.59E-03	5.00E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
369085.00	3755395.00	5.00E-04	9.01E-03	1.56E-02	1.69E-02	8.61E-03	3.23E-03	3.49E-03	4.90E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
369185.00	3755395.00	4.80E-04	8.69E-03	1.52E-02	1.66E-02	8.51E-03	3.18E-03	3.34E-03	4.70E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
369285.00	3755395.00	4.60E-04	8.42E-03	1.49E-02	1.62E-02	8.35E-03	3.13E-03	3.16E-03	4.50E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
369385.00	3755395.00	4.30E-04	7.99E-03	1.48E-02	1.58E-02	7.95E-03	2.94E-03	2.78E-03	4.10E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
369485.00	3755395.00	4.30E-04	7.88E-03	1.48E-02	1.54E-02	7.35E-03	2.71E-03	2.49E-03	3.80E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
369585.00	3755395.00	4.50E-04	8.03E-03	1.50E-02	1.54E-02	7.28E-03	2.73E-03	2.58E-03	3.90E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
369685.00	3755395.00	4.50E-04	8.08E-03	1.50E-02	1.55E-02	7.62E-03	2.92E-03	2.78E-03	4.10E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
369785.00	3755395.00	4.30E-04	7.76E-03	1.44E-02	1.51E-02	7.80E-03	3.03E-03	2.83E-03	4.10E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
369885.00	3755395.00	3.90E-04	7.22E-03	1.35E-02	1.46E-02	7.88E-03	3.06E-03	2.74E-03	4.00E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
369985.00	3755395.00	3.70E-04	6.94E-03	1.30E-02	1.44E-02	7.95E-03	3.07E-03	2.55E-03	3.80E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
370085.00	3755395.00	3.50E-04	6.58E-03	1.25E-02	1.39E-02	7.79E-03	2.99E-03	2.35E-03	3.60E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
370185.00	3755395.00	3.40E-04	6.41E-03	1.24E-02	1.37E-02	7.61E-03	2.91E-03	2.19E-03	3.40E-04	8.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
370285.00	3755395.00	3.30E-04	6.26E-03	1.22E-02	1.34E-02	7.38E-03	2.85E-03	2.08E-03	3.20E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
370377.81	3755313.33	3.00E-04	5.67E-03	1.12E-02	1.22E-02	6.60E-03	2.57E-03	1.85E-03	2.90E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
370477.81	3755313.33	3.10E-04	5.68E-03	1.13E-02	1.21E-02	6.49E-03	2.52E-03	1.85E-03	3.00E-04	8.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
370577.81	3755313.33	3.00E-04	5.52E-03	1.10E-02	1.17E-02	6.32E-03	2.45E-03	1.83E-03	2.90E-04	8.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
370677.81	3755313.33	3.00E-04	5.28E-03	1.03E-02	1.08E-02	5.79E-03	2.34E-03	1.79E-03	2.80E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
370777.81	3755313.33	2.90E-04	5.14E-03	9.88E-03	1.03E-02	5.68E-03	2.32E-03	1.73E-03	2.80E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
370877.81	3755313.33	2.80E-04	4.97E-03	9.55E-03	1.01E-02	5.67E-03	2.30E-03	1.68E-03	2.90E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
370977.81	3755313.33	2.70E-04	4.83E-03	9.72E-03	1.03E-02	5.92E-03	2.36E-03	1.57E-03	2.80E-04	8.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
371077.81	3755313.33	2.50E-04	4.62E-03	9.34E-03	9.87E-03	5.75E-03	2.29E-03	1.47E-03	2.80E-04	8.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
371177.81	3755313.33	2.40E-04	4.41E-03	8.99E-03	9.49E-03	5.53E-03	2.21E-03	1.37E-03	2.70E-04	8.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
371277.81	3755313.33	2.30E-04	4.23E-03	8.68E-03	9.11E-03	5.29E-03	2.11E-03	1.28E-03	2.60E-04	8.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
371377.81	3755313.33	2.30E-04	4.07E-03	8.39E-03	8.73E-03	5.04E-03	2.01E-03	1.21E-03	2.50E-04	8.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
371477.81	3755313.33	2.20E-04	3.92E-03	8.11E-03	8.35E-03	4.79E-03	1.92E-03	1.14E-03	2.40E-04	8.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
371577.81	3755313.33	2.20E-04	3.78E-03	7.85E-03	7.98E-03	4.55E-03	1.83E-03	1.09E-03	2.40E-04	8.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
371677.81	3755313.33	2.20E-04	3.64E-03	7.59E-03	7.62E-03	4.33E-03	1.76E-03	1.04E-03	2.30E-04	8.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
371777.81	3755313.33	2.20E-04	3.50E-03	7.33E-03	7.28E-03	4.14E-03	1.70E-03	9.90E-04	2.20E-04	7.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
371871.82	3755232.57	2.00E-04	3.22E-03	6.76E-03	6.68E-03	3.80E-03	1.58E-03	9.10E-04	2.10E-04	7.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
371971.82	3755232.57	2.00E-04	3.10E-03	6.54E-03	6.43E-03	3.67E-03	1.54E-03	8.70E-04	2.00E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Gasoline Exhaust, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
372071.82	3755232.57	2.00E-04	2.98E-03	6.32E-03	6.21E-03	3.57E-03	1.52E-03	8.30E-04	1.90E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
372171.82	3755232.57	1.90E-04	2.87E-03	6.11E-03	6.02E-03	3.47E-03	1.50E-03	7.90E-04	1.90E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
372271.82	3755232.57	1.90E-04	2.76E-03	5.90E-03	5.85E-03	3.38E-03	1.48E-03	7.60E-04	1.90E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
372371.82	3755232.57	1.80E-04	2.65E-03	5.70E-03	5.71E-03	3.29E-03	1.46E-03	7.20E-04	1.80E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
372471.82	3755232.57	1.80E-04	2.55E-03	5.51E-03	5.61E-03	3.20E-03	1.44E-03	6.90E-04	1.80E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
372571.82	3755232.57	1.70E-04	2.45E-03	5.31E-03	5.56E-03	3.10E-03	1.41E-03	6.60E-04	1.70E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
372671.82	3755232.57	1.70E-04	2.35E-03	5.12E-03	5.59E-03	2.99E-03	1.38E-03	6.30E-04	1.70E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
372771.82	3755232.57	1.70E-04	2.25E-03	4.93E-03	5.74E-03	2.88E-03	1.35E-03	6.00E-04	1.60E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
372871.82	3755232.57	1.60E-04	2.15E-03	4.74E-03	5.88E-03	2.76E-03	1.31E-03	5.70E-04	1.60E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
372971.82	3755232.57	1.60E-04	2.06E-03	4.56E-03	5.58E-03	2.65E-03	1.27E-03	5.40E-04	1.50E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_ROG_Annual.xlsx Annual ROG Summary by Source

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Paving Evaporation, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
369131.40	3758945.42	0.00E+00	6.00E-05	1.10E-04	1.00E-04	4.00E-05	1.10E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
370190.78	3758848.26	0.00E+00	9.00E-05	1.80E-04	1.60E-04	7.00E-05	1.70E-04	0.00E+00	6.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
370747.03	3763937.58	0.00E+00	1.00E-05	3.00E-05	3.00E-05	2.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370757.72	3755124.52	1.00E-05	7.00E-05	1.60E-04	1.30E-04	5.00E-05	1.80E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
370946.70	3758260.69	1.00E-05	2.80E-04	4.50E-04	3.30E-04	1.40E-04	3.20E-04	0.00E+00	1.40E-04	0.00E+00	2.00E-05	2.30E-04	0.00E+00	0.00E+00	0.00E+00
371368.79	3754218.82	1.00E-05	4.00E-05	1.00E-04	1.10E-04	4.00E-05	1.20E-04	0.00E+00	2.00E-05	0.00E+00	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
371786.04	3754168.42	1.00E-05	4.00E-05	1.10E-04	1.20E-04	4.00E-05	1.30E-04	0.00E+00	2.00E-05	0.00E+00	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373756.25	3761779.11	0.00E+00	2.00E-05	5.00E-05	5.00E-05	3.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
367734.03	3758536.57	0.00E+00	4.00E-05	8.00E-05	7.00E-05	4.00E-05	7.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
368069.11	3760165.13	0.00E+00	3.00E-05	7.00E-05	6.00E-05	3.00E-05	7.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
369125.38	3763066.25	0.00E+00	1.00E-05	4.00E-05	4.00E-05	2.00E-05	4.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369225.45	3764227.42	0.00E+00	1.00E-05	3.00E-05	3.00E-05	2.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370236.75	3761140.30	0.00E+00	3.00E-05	7.00E-05	7.00E-05	4.00E-05	7.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
372218.41	3759157.53	0.00E+00	9.00E-05	2.40E-04	2.60E-04	1.60E-04	2.20E-04	0.00E+00	8.00E-05	0.00E+00	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
372267.44	3762986.25	0.00E+00	1.00E-05	3.00E-05	3.00E-05	1.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374498.14	3758643.27	1.00E-05	1.70E-04	4.30E-04	5.20E-04	3.90E-04	3.50E-04	0.00E+00	1.40E-04	0.00E+00	1.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
375472.61	3759680.03	0.00E+00	8.00E-05	1.80E-04	1.80E-04	1.00E-04	1.50E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
375514.38	3757500.61	3.00E-05	1.10E-04	6.30E-04	4.30E-04	1.80E-04	7.00E-04	0.00E+00	7.00E-05	0.00E+00	1.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
377395.41	3759189.37	1.00E-05	9.00E-05	2.60E-04	2.50E-04	1.80E-04	2.70E-04	0.00E+00	7.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
366363.62	3757753.10	0.00E+00	3.00E-05	6.00E-05	5.00E-05	2.00E-05	7.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
369385.71	3758351.85	0.00E+00	9.00E-05	1.40E-04	1.30E-04	6.00E-05	1.40E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369388.19	3758584.61	0.00E+00	8.00E-05	1.30E-04	1.20E-04	6.00E-05	1.40E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
371727.30	3758286.14	1.00E-05	3.00E-04	6.50E-04	7.20E-04	2.60E-04	4.40E-04	0.00E+00	2.70E-04	0.00E+00	2.00E-05	1.90E-04	0.00E+00	0.00E+00	0.00E+00
371973.18	3757657.97	1.00E-05	1.97E-03	1.49E-02	4.95E-03	5.40E-04	1.22E-03	0.00E+00	4.12E-02	0.00E+00	1.00E-04	9.80E-04	0.00E+00	0.00E+00	0.00E+00
372028.99	3757658.28	1.00E-05	9.85E-04	1.80E-03	5.84E-03	1.06E-04	1.25E-03	0.00E+00	1.48E-03	0.00E+00	1.00E-04	9.50E-04	0.00E+00	0.00E+00	0.00E+00
372057.72	3757303.44	1.00E-05	1.37E-03	4.68E-03	6.35E-03	6.30E-04	4.01E-03	0.00E+00	9.82E-03	0.00E+00	1.30E-04	1.32E-03	0.00E+00	0.00E+00	0.00E+00
372058.94	3757365.68	1.00E-05	1.52E-03	9.47E-03	4.25E-03	6.40E-04	3.02E-03	0.00E+00	1.02E-02	0.00E+00	1.40E-04	1.35E-03	0.00E+00	0.00E+00	0.00E+00
372114.76	3754719.38	1.00E-05	1.48E-03	2.42E-02	3.66E-03	7.40E-04	2.57E-03	0.00E+00	7.10E-03	0.00E+00	1.30E-04	1.24E-03	0.00E+00	0.00E+00	0.00E+00
372149.51	3757302.81	1.00E-05	1.14E-03	4.57E-03	6.59E-03	7.80E-04	4.37E-03	0.00E+00	5.18E-03	0.00E+00	1.20E-04	1.16E-03	0.00E+00	0.00E+00	0.00E+00
366675.72	3757743.67	0.00E+00	3.00E-05	7.00E-05	6.00E-05	3.00E-05	7.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
367105.41	3757963.83	0.00E+00	4.00E-05	8.00E-05	7.00E-05	3.00E-05	8.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
367221.30	3757911.68	0.00E+00	4.00E-05	8.00E-05	7.00E-05	3.00E-05	8.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	4.00E-05	0.00E

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Paving Evaporation, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
368748.06	3758034.51	0.00E+00	7.00E-05	1.30E-04	1.20E-04	6.00E-05	1.20E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
368771.48	3755472.04	0.00E+00	6.00E-05	1.10E-04	9.00E-05	4.00E-05	1.10E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
368806.72	3758070.98	0.00E+00	7.00E-05	1.30E-04	1.20E-04	6.00E-05	1.20E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
368863.73	3755470.88	0.00E+00	6.00E-05	1.10E-04	1.00E-04	4.00E-05	1.10E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
368865.39	3758107.46	0.00E+00	7.00E-05	1.30E-04	1.20E-04	6.00E-05	1.20E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
368931.37	3758150.49	0.00E+00	7.00E-05	1.30E-04	1.20E-04	6.00E-05	1.20E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
368955.99	3755469.72	0.00E+00	6.00E-05	1.10E-04	1.00E-04	4.00E-05	1.20E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
368974.29	3758177.61	0.00E+00	8.00E-05	1.30E-04	1.20E-04	6.00E-05	1.20E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
368992.63	3758138.09	0.00E+00	8.00E-05	1.40E-04	1.20E-04	6.00E-05	1.30E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
369011.06	3758086.77	0.00E+00	8.00E-05	1.40E-04	1.30E-04	6.00E-05	1.30E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
369048.25	3755468.56	0.00E+00	6.00E-05	1.10E-04	1.00E-04	4.00E-05	1.20E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369097.31	3758131.13	0.00E+00	8.00E-05	1.40E-04	1.30E-04	6.00E-05	1.30E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
369140.50	3755467.40	0.00E+00	6.00E-05	1.20E-04	1.10E-04	4.00E-05	1.30E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369216.91	3758091.16	0.00E+00	9.00E-05	1.50E-04	1.40E-04	7.00E-05	1.40E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369232.76	3755466.24	0.00E+00	7.00E-05	1.20E-04	1.10E-04	5.00E-05	1.30E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369267.76	3758146.04	0.00E+00	9.00E-05	1.50E-04	1.40E-04	7.00E-05	1.50E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
369271.60	3758257.04	0.00E+00	9.00E-05	1.40E-04	1.30E-04	7.00E-05	1.40E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369323.20	3758086.63	0.00E+00	1.00E-04	1.60E-04	1.40E-04	7.00E-05	1.50E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
369328.65	3758304.45	0.00E+00	9.00E-05	1.40E-04	1.30E-04	7.00E-05	1.40E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369329.84	3754964.79	0.00E+00	7.00E-05	1.20E-04	1.10E-04	5.00E-05	1.40E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369342.43	3757939.52	0.00E+00	1.10E-04	1.80E-04	1.50E-04	7.00E-05	1.60E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
369386.54	3758429.44	0.00E+00	9.00E-05	1.40E-04	1.30E-04	6.00E-05	1.40E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369387.36	3758507.21	0.00E+00	8.00E-05	1.30E-04	1.20E-04	6.00E-05	1.40E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369449.11	3758008.60	0.00E+00	1.10E-04	1.70E-04	1.50E-04	7.00E-05	1.60E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
369426.92	3754963.35	0.00E+00	7.00E-05	1.20E-04	1.20E-04	5.00E-05	1.50E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
369468.66	3758583.75	0.00E+00	8.00E-05	1.40E-04	1.20E-04	6.00E-05	1.40E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
369524.00	3755461.90	1.00E-05	7.00E-05	1.30E-04	1.20E-04	5.00E-05	1.60E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
369549.13	3758582.89	0.00E+00	9.00E-05	1.50E-04	1.30E-04	6.00E-05	1.50E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
369621.08	3755460.45	1.00E-05	7.00E-05	1.30E-04	1.20E-04	6.00E-05	1.60E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
369629.61	3758582.03	0.00E+00	9.00E-05	1.50E-04	1.30E-04	6.00E-05	1.50E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
369710.08	3758581.17	0.00E+00	1.00E-04	1.60E-04	1.40E-04	6.00E-05	1.60E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369718.16	3754459.00	1.00E-05	7.00E-05	1.30E-04	1.30E-04	6.00E-05	1.70E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
369787.02	3758286.68	0.00E+00	1.20E-04	1.80E-04	1.60E-04	8.00E-05	1.80E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
369788.19	3758398.38	0.00E+00	1.20E-04	1.80E-04	1.60E-04	7.00E-05	1.80E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
369789.37	3758489.35	0.00E+00	1.10E-04	1.80E-04	1.50E-04	7.00E-05	1.70E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
369815.24	3754457.56	1.00E-05	7.00E-05	1.40E-04	1.30E-04	6.00E-05	1.80E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
369882.94	3758285.07	1.00E-05	1.30E-04	2.00E-04	1.70E-04	8.00E-05	1.90E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
369912.32	3754456.11	1.00E-05	7.00E-05	1.40E-04	1.40E-04	6.00E-05	1.90E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369978.66	3758283.45	1.00E-05	1.40E-04	2.10E-04	1.80E-04	8.00E-05	2.00E-04	0.00E+00	6.00E-05	0.00E+00	2.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
370009.40	3754454.66	1.00E-05	7.00E-05	1.50E-04	1.40E-04	6.00E-05	2.00E-04	0.00E+00	4.00E-05	0.00E+00	2.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
370056.44	3758282.14	1.00E-05	1.50E-04	2.20E-04	1.90E-04	9.00E-05	2.10E-04	0.00E+00	6.00E-05	0.00E+00	2.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
370106.48	3754453.21	1.00E-05	8.00E-05	1.60E-04	1.40E-04	6.00E-05	2.00E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
370130.90	3758282.44	1.00E-05	1.60E-04	2.30E-04	1.90E-04	9.00E-05	2.10E-04	0.00E+00	7.00E-05	0.00E+00	2.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
370203.56	3754451.77	1.00E-05	8.00E-05	1.60E-04	1.50E-04	6.00E-05	2.10E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
370226.81	3758159.47	1.00E-05	1.90E-04	2.70E-04	2.20E-04	1.00E-04	2.40E-04	0.00E+00	8.00E-05	0.00E+00	2.00E-05	2.00E-04	0.00E+00	0.00E+00	0.00E+00
370227.55	3758221.46	1.00E-05	1.80E-04	2.60E-04	2.10E-04	9.00E-05	2.30E-04	0.00E+00	8.00E-05	0.00E+00	2.00E-05	1.90E-04	0.00E+00	0.00E+00	0.00E+00
370228.30	3758283.44	1.00E-05	1.70E-04	2.50E-04	2.10E-04	9.00E-05	2.30E-04	0.00E+00	7.00E-05	0.00E+00	2.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
370253.14	3758168.84	1.00E-05	1.90E-04	2.70E-04	2.20E-04	1.00E-04	2.40E-04	0.00E+00	8.00E-05	0.00E+00	2.00E-05	2.00E-04	0.00E+00	0.00E+00	0.00E+00
370300.64	3754450.32	1.00E-05	8.00E-05	1.70E-04	1.60E-04	7.00E-05	2.20E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
370308.97	3758176.51	1.00E-05	2.00E-04	2.80E-04	2.30E-04	1.00E-04	2.50E-04	0.00E+00	8.00E-05	0.00E+00	2.00E-05	2.10E-04	0.00E+00	0.00E+00	0.00E+00
370356.87	3758202.23	1.00E-05	2.00E-04	2.90E-04	2.30E-04	1.00E-04	2.50E-04	0.00E+00	9.00E-05	0.00E+00	2.00E-05	2.10E-04	0.00E+00	0.00E+00	0.00E+00
370397.72	3755448.87	1.00E-05	8.00E-05	1.80E-04	1.60E-04	7.00E-05	2.30E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
370404.21	3758225.88	1.00E-05	2.10E-04	3.00E-04	2.40E-04	1.00E-04	2.60E-04	0.00E+00	9.00E-05	0.00E+00	2.00E-05	2.00E-04	0.00E+00	0.00E+00	0.00E+00
370422.64	3758284.19	1.00E-05	2.00E-04	2.90E-04	2.30E-04	1.00E-04	2.50E-04	0.00E+00	9.00E-05	0.00E+00	2.00E-05	1.90E-04	0.00E+00	0.00E+00	0.00E+00
370442.78	3758228.43	1.00E-05	2.10E-04	3.10E-04	2.40E-04	1.00E-04	2.60E-04	0.00E+00	9.00E-05	0.00E+00	2.00E-05	2.10E-04	0.00E+00	0.00E+00	0.00E+00
370465.02	3755455.18	1.00E-05	9.00E-05	1.80E-04	1.60E-04	7.00E-05	2.30E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
370522.53	3758282.84	1.00E-05	2.10E-04	3.20E-04	2.50E-04	1.10E-04	2.60E-04	0.00E+00	9.00E-05	0.00E+00	2.00E-05	1.90E-04	0.00E+00	0.00E+00	0.00E+00
370558.15	3755458.94	1.00E-05	9.00E-05	2.00E-04	1.70E-04	7.00E-05	2.40E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
370622.42	3758281.49	1.00E-05	2.20E-04	3.40E-04	2.60E-04	1.10E-04	2.80E-04	0.00E+00	1.00E-04	0.00E+00	2.00E-05	2.00E-04	0.00E+00	0.00E+00	0.00E+00
370624.63	3755467.51	1.00E-05	9.00E-05	2.10E-04	1.70E-04	7.00E-05	2.40E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
370691.11	3755476.08	1.00E-05	1.00E-04	2.10E-04	1.80E-04	7.00E-05	2.50E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
370722.31	3758280.14	1.00E-05	2.40E-04	3.70E-04	2.80E-04	1.20E-04	2.90E-04	0.00E+00	1.10E-04	0.00E+00	2.00E-05	2.10E-04	0.00E+00	0.00E+00	0.00E+00
370757.38	3755493.32	1.00E-05	1.00E-04	2.10E-04	1.80E-04	7.00E-05	2.50E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
370792.87	3757995.38	1.00E-05	4.20E-04	5.20E-04	3.60E-04	1.40E-04	3.70E-04	0.00E+00	1.50E-04	0.00E+00	4.00E-05	3.50E-04	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_ROG_Annual.xlsx

Annual ROG Summary by Source

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Paving Evaporation, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
370797.01	3758107.02	1.00E-05	3.40E-04	4.70E-04	3.40E-04	1.40E-04	3.40E-04	0.00E+00	1.40E-04	0.00E+00	3.00E-05	2.80E-04	0.00E+00	0.00E+00	0.00E+00
370798.36	3758194.12	1.00E-05	2.90E-04	4.30E-04	3.20E-04	1.30E-04	3.20E-04	0.00E+00	1.30E-04	0.00E+00	3.00E-05	2.40E-04	0.00E+00	0.00E+00	0.00E+00
370798.51	3757946.46	1.00E-05	4.60E-04	5.50E-04	3.80E-04	1.40E-04	3.90E-04	0.00E+00	1.60E-04	0.00E+00	4.00E-05	3.90E-04	0.00E+00	0.00E+00	0.00E+00
370799.71	3758281.23	1.00E-05	2.50E-04	3.90E-04	3.00E-04	1.20E-04	3.00E-04	0.00E+00	1.20E-04	0.00E+00	2.00E-05	2.10E-04	0.00E+00	0.00E+00	0.00E+00
370807.53	3755529.02	1.00E-05	1.00E-04	2.20E-04	1.90E-04	7.00E-05	2.70E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
370818.52	3757901.47	1.00E-05	5.20E-04	5.90E-04	3.90E-04	1.50E-04	4.10E-04	0.00E+00	1.70E-04	0.00E+00	4.00E-05	4.40E-04	0.00E+00	0.00E+00	0.00E+00
370851.08	3758764.53	1.00E-05	5.90E-04	6.40E-04	4.10E-04	1.50E-04	4.30E-04	0.00E+00	1.80E-04	0.00E+00	5.00E-05	5.00E-04	0.00E+00	0.00E+00	0.00E+00
370854.34	3755560.20	1.00E-05	1.10E-04	2.30E-04	1.90E-04	7.00E-05	2.80E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
370901.14	3755591.38	1.00E-05	1.10E-04	2.30E-04	2.00E-04	8.00E-05	2.90E-04	0.00E+00	5.00E-05	0.00E+00	2.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
370908.58	3758858.61	1.00E-05	6.50E-04	7.10E-04	4.40E-04	1.50E-04	4.50E-04	0.00E+00	1.90E-04	0.00E+00	5.00E-05	5.30E-04	0.00E+00	0.00E+00	0.00E+00
370929.68	3755646.61	1.00E-05	1.20E-04	2.40E-04	2.10E-04	8.00E-05	3.00E-04	0.00E+00	5.00E-05	0.00E+00	2.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
370932.48	3755705.67	1.00E-05	1.20E-04	2.50E-04	2.20E-04	8.00E-05	3.20E-04	0.00E+00	5.00E-05	0.00E+00	2.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
370959.17	3757378.41	1.00E-05	9.10E-03	1.50E-03	5.50E-04	1.50E-04	7.60E-04	0.00E+00	2.30E-04	0.00E+00	1.00E-04	1.61E-02	0.00E+00	0.00E+00	0.00E+00
370959.96	3757296.11	1.00E-05	5.46E-03	1.43E-03	5.80E-04	1.40E-04	8.20E-04	0.00E+00	2.30E-04	0.00E+00	2.00E-04	2.21E-02	0.00E+00	0.00E+00	0.00E+00
370960.75	3757213.81	1.00E-05	4.83E-03	1.26E-03	5.70E-04	1.40E-04	9.00E-04	0.00E+00	2.20E-04	0.00E+00	2.00E-04	3.25E-03	3.21E-02	0.00E+00	0.00E+00
370961.54	3757131.59	1.00E-05	5.88E-03	1.12E-03	5.40E-04	1.40E-04	9.80E-04	0.00E+00	2.10E-04	0.00E+00	1.00E-04	1.79E-03	1.77E-02	0.00E+00	0.00E+00
370962.33	3757049.20	1.00E-05	1.65E-02	1.03E-03	5.20E-04	1.40E-04	1.02E-03	0.00E+00	2.00E-04	0.00E+00	1.00E-04	1.86E-03	1.83E-02	0.00E+00	0.00E+00
370963.12	3756966.90	1.00E-05	1.38E-02	9.30E-04	5.00E-04	1.40E-04	9.60E-04	0.00E+00	1.90E-04	0.00E+00	1.00E-04	1.53E-03	1.52E-02	0.00E+00	0.00E+00
370966.07	3757852.69	1.00E-05	7.20E-04	7.90E-04	4.60E-04	1.60E-04	4.70E-04	0.00E+00	2.10E-04	0.00E+00	6.00E-05	5.60E-04	0.00E+00	0.00E+00	0.00E+00
370968.09	3757808.70	1.00E-05	8.10E-04	8.40E-04	4.70E-04	1.60E-04	5.00E-04	0.00E+00	2.20E-04	0.00E+00	6.00E-05	6.40E-04	0.00E+00	0.00E+00	0.00E+00
370983.75	3755705.22	1.00E-05	1.30E-04	2.50E-04	2.20E-04	8.00E-05	3.30E-04	0.00E+00	5.00E-05	0.00E+00	2.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
370986.42	3755628.02	1.00E-05	1.20E-04	2.40E-04	2.10E-04	8.00E-05	3.10E-04	0.00E+00	5.00E-05	0.00E+00	2.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
370989.10	3755550.81	1.00E-05	1.10E-04	2.30E-04	2.00E-04	7.00E-05	2.90E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
370991.77	3755473.61	1.00E-05	1.00E-04	2.10E-04	1.90E-04	7.00E-05	2.70E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
371017.44	3757371.98	1.00E-05	7.28E-03	2.53E-03	6.10E-04	1.50E-04	8.40E-04	0.00E+00	2.60E-04	0.00E+00	3.20E-03	3.16E-02	0.00E+00	0.00E+00	0.00E+00
371039.92	3757778.95	1.00E-05	1.00E-03	1.02E-03	5.10E-04	1.70E-04	5.40E-04	0.00E+00	2.50E-04	0.00E+00	7.00E-05	7.20E-04	0.00E+00	0.00E+00	0.00E+00
371061.56	3756965.39	1.00E-05	9.07E-03	1.32E-03	5.90E-04	1.50E-04	1.23E-03	0.00E+00	2.20E-04	0.00E+00	2.24E-03	2.21E-02	0.00E+00	0.00E+00	0.00E+00
371064.57	3755405.04	1.00E-05	1.00E-04	2.00E-04	1.90E-04	7.00E-05	2.60E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
371078.64	3757842.57	1.00E-05	9.20E-04	1.00E-03	5.30E-04	1.80E-04	5.20E-04	0.00E+00	2.60E-04	0.00E+00	6.00E-05	5.90E-04	0.00E+00	0.00E+00	0.00E+00
371116.65	3757378.24	1.00E-05	5.41E-03	8.95E-03	7.30E-04	1.70E-04	9.80E-04	0.00E+00	3.10E-04	0.00E+00	1.40E-03	1.38E-02	0.00E+00	0.00E+00	0.00E+00
371117.35	3757906.19	1.00E-05	8.40E-04	9.50E-04	5.40E-04	1.90E-04	5.00E-04	0.00E+00	2.60E-04	0.00E+00	5.00E-05	4.90E-04	0.00E+00	0.00E+00	0.00E+00
371160.25	3755403.96	2.00E-05	1.00E-04	2.10E-04	1.90E-04	7.00E-05	2.60E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
371160.00	3756963.88	1.00E-05	3.08E-03	3.27E-03	7.10E-04	1.60E-04	1.71E-03	0.00E+00	2.60E-04	0.00E+00	9.50E-04	9.42E-03	0.00E+00	0.00E+00	0.00E+00
371173.76	3757954.26	1.00E-05	8.10E-04	9.50E-04	5.50E-04	1.90E-04	4.90E-04	0.00E+00	2.70E-04	0.00E+00	4.00E-05	4.20E-04	0.00E+00	0.00E+00	0.00E+00
371174.47	3757986.09	1.00E-05	7.30E-04	8.90E-04	5.30E-04	1.90E-04	4.70E-04	0.00E+00	2.60E-04	0.00E+00	4.00E-05	3.90E-04	0.00E+00	0.00E+00	0.00E+00
371208.04	3757708.08	1.00E-05	1.12E-02	5.04E-03	9.90E-04	1.80E-04	1.34E-03	0.00E+00	3.70E-04	0.00E+00	9.10E-04	9.03E-03	0.00E+00	0.00E+00	0.00E+00
371208.86	3757379.92	1.00E-05	1.13E-02	1.08E-02	9.00E-04	1.80E-04	1.14E-03	0.00E+00	3.80E-04	0.00E+00	7.90E-04	7.80E-03	0.00E+00	0.00E+00	0.00E+00
371210.97	3757210.00	1.00E-05	7.83E-03	2.66E-03	1.06E-03	1.80E-04	1.63E-03	0.00E+00	3.50E-04	0.00E+00	1.04E-03	1.02E-02	0.00E+00	0.00E+00	0.00E+00
371243.87	3757985.25	1.00E-05	8.40E-04	9.80E-04	5.80E-04	2.00E-04	4.90E-04	0.00E+00	2.90E-04	0.00E+00	4.00E-05	3.80E-04	0.00E+00	0.00E+00	0.00E+00
371255.94	3755402.89	2.00E-05	1.00E-04	2.10E-04	2.00E-04	7.00E-05	2.70E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
371258.45	3756962.36	1.00E-05	2.35E-03	9.55E-03	8.70E-04	1.70E-04	2.74E-03	0.00E+00	3.00E-04	0.00E+00	5.70E-04	5.67E-03	0.00E+00	0.00E+00	0.00E+00
371275.69	3757208.66	1.00E-05	5.03E-03	3.34E-03	1.42E-03	1.90E-04	1.98E-03	0.00E+00	4.10E-04	0.00E+00	7.70E-04	7.60E-03	0.00E+00	0.00E+00	0.00E+00
371313.27	3757984.41	1.00E-05	9.50E-04	1.07E-03	6.30E-04	2.20E-04	5.10E-04	0.00E+00	3.30E-04	0.00E+00	4.00E-05	3.70E-04	0.00E+00	0.00E+00	0.00E+00
371348.54	3758024.62	1.00E-05	7.80E-04	9.80E-04	6.30E-04	2.20E-04	5.00E-04	0.00E+00	3.30E-04	0.00E+00	3.00E-05	3.30E-04	0.00E+00	0.00E+00	0.00E+00
371351.62	3755401.81	2.00E-05	1.

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Paving Evaporation, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
373374.73	3757597.71	1.00E-05	3.70E-04	2.55E-03	2.48E-03	3.86E-03	2.13E-02	0.00E+00	4.50E-04	0.00E+00	4.00E-05	3.80E-04	0.00E+00	0.00E+00	0.00E+00
373374.83	3756432.37	5.60E-04	5.60E-04	7.80E-04	5.70E-04	2.40E-04	6.80E-04	0.00E+00	7.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
373375.60	3757685.31	1.00E-05	4.00E-04	2.23E-03	2.38E-03	8.74E-03	2.01E-02	0.00E+00	5.00E-04	0.00E+00	4.00E-05	3.90E-04	0.00E+00	0.00E+00	0.00E+00
373393.43	3757684.85	1.00E-05	3.90E-04	2.20E-03	2.33E-03	7.86E-03	1.41E-02	0.00E+00	4.90E-04	0.00E+00	4.00E-05	3.80E-04	0.00E+00	0.00E+00	0.00E+00
373394.30	3757744.19	1.00E-05	4.00E-04	2.03E-03	2.40E-03	3.32E-02	8.58E-03	0.00E+00	5.10E-04	0.00E+00	4.00E-05	3.80E-04	0.00E+00	0.00E+00	0.00E+00
367047.63	3761097.01	0.00E+00	2.00E-05	5.00E-05	4.00E-05	2.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370737.54	3762942.92	0.00E+00	2.00E-05	4.00E-05	4.00E-05	2.00E-05	4.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371031.93	3758057.86	1.00E-05	4.80E-04	6.40E-04	4.30E-04	1.70E-04	4.10E-04	0.00E+00	1.90E-04	0.00E+00	3.00E-05	3.40E-04	0.00E+00	0.00E+00	0.00E+00
371034.38	3758338.88	1.00E-05	2.40E-04	4.10E-04	3.30E-04	1.40E-04	3.00E-04	0.00E+00	1.40E-04	0.00E+00	2.00E-05	2.20E-04	0.00E+00	0.00E+00	0.00E+00
371091.65	3754274.94	1.00E-05	5.00E-05	1.00E-04	1.10E-04	4.00E-05	1.20E-04	0.00E+00	2.00E-05	0.00E+00	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
371165.78	3758547.83	0.00E+00	1.60E-04	3.30E-04	3.10E-04	1.30E-04	2.40E-04	0.00E+00	1.10E-04	0.00E+00	1.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
372241.00	3757383.00	1.00E-05	1.11E-03	1.59E-02	4.42E-03	1.05E-03	3.30E-03	0.00E+00	3.75E-03	0.00E+00	1.10E-04	1.06E-03	0.00E+00	0.00E+00	0.00E+00
372703.01	3761799.64	0.00E+00	2.00E-05	6.00E-05	5.00E-05	3.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
374194.97	3754806.86	1.00E-05	4.00E-05	1.30E-04	1.40E-04	6.00E-05	1.40E-04	0.00E+00	2.00E-05	0.00E+00	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
374697.43	3760305.50	0.00E+00	4.00E-05	1.10E-04	1.00E-04	6.00E-05	1.00E-04	0.00E+00	3.00E-05	0.00E+00	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
375423.74	3758805.14	1.00E-05	1.50E-04	3.90E-04	4.40E-04	3.50E-04	3.70E-04	0.00E+00	1.20E-04	0.00E+00	1.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
375433.42	3757541.59	2.00E-05	1.10E-04	6.90E-04	4.80E-04	2.00E-04	7.70E-04	0.00E+00	8.00E-05	0.00E+00	1.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
378090.06	3758535.33	1.00E-05	8.00E-05	2.90E-04	2.50E-04	1.60E-04	3.10E-04	0.00E+00	6.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
368494.88	3756671.28	0.00E+00	6.00E-05	1.00E-04	9.00E-05	4.00E-05	1.10E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
370394.80	3756845.73	1.00E-05	5.20E-04	3.60E-04	2.50E-04	9.00E-05	3.80E-04	0.00E+00	9.00E-05	0.00E+00	8.00E-05	7.90E-04	0.00E+00	0.00E+00	0.00E+00
368983.23	3754581.57	0.00E+00	4.00E-05	9.00E-05	8.00E-05	4.00E-05	1.10E-04	0.00E+00	2.00E-05	0.00E+00	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00
369216.41	3758422.45	0.00E+00	8.00E-05	1.30E-04	1.20E-04	6.00E-05	1.30E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
369532.57	3753391.67	0.00E+00	6.00E-05	1.20E-04	1.30E-04	7.00E-05	1.70E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369574.04	3758166.39	0.00E+00	1.70E-04	3.70E-04	1.60E-04	8.00E-05	1.60E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
369581.37	3758516.07	0.00E+00	9.00E-05	1.50E-04	1.30E-04	6.00E-05	1.50E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369830.08	3755394.84	1.00E-05	7.00E-05	1.40E-04	1.30E-04	7.00E-05	1.90E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
370114.12	3758186.53	1.00E-05	1.70E-04	2.40E-04	2.00E-04	9.00E-05	2.20E-04	0.00E+00	7.00E-05	0.00E+00	2.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
371021.69	3757820.60	1.00E-05	8.60E-04	9.20E-04	5.00E-04	1.70E-04	5.10E-04	0.00E+00	2.40E-04	0.00E+00	6.00E-05	6.30E-04	0.00E+00	0.00E+00	0.00E+00
366809.77	3757837.27	0.00E+00	4.00E-05	7.00E-05	6.00E-05	3.00E-05	8.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
366843.26	3757860.52	0.00E+00	4.00E-05	7.00E-05	6.00E-05	3.00E-05	8.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
366900.00	3758500.00	0.00E+00	3.00E-05	7.00E-05	6.00E-05	3.00E-05	7.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
366900.00	3762500.00	0.00E+00	2.00E-05	4.00E-05	4.00E-05	2.00E-05	4.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
366900.00	3763500.00	0.00E+00	1.00E-05	3.00E-05	3.00E-05	2.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
366900.00	3764500.00	0.00E+00	1.00E-05	3.00E-05	2.00E-05	1.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
366982.41	3757958.65	0.00E+00	4.00E-05	8.00E-05	7.00E-05	3.00E-05	8.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
367163.97	3758028.86	0.00E+00	4.00E-05	8.00E-05	7.00E-05	3.00E-05	8.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
367275.38	3757999.92	0.00E+00	4.00E-05	8.00E-05	7.00E-05	3.00E-05	8.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
367395.04	3758065.94	0.00E+00	4.00E-05	8.00E-05	7.00E-05	3.00E-05	8.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
367880.40	3758145.84	0.00E+00	5.00E-05	1.00E-04	9.00E-05	4.00E-05	9.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00
367900.00	3761500.00	0.00E+00	2.00E-05	5.00E-05	5.00E-05	2.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
367900.00	3762500.00	0.00E+00	2.00E-05	4.00E-05	4.00E-05	2.00E-05	4.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
367900.00	3764500.00	0.00E+00	1.00E-05	3.00E-05	3.00E-05	2.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368006.97	3758068.94	0.00E+00	5.00E-05	1.10E-04	9.00E-05	5.00E-05	1.00E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
368782.48	3758015.85	0.00E+00	6.00E-05	1.10E-04	9.00E-05	5.00E-05	1.00E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
368416.83	3757988.39	0.00E+00	6.00E-05	1.20E-04	1.10E-04	5.00E-05	1.10E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
368577.94	3757979.23	0.00E+00	7.00E-05	1.30E-04	1.10E-04	5.00E-05	1.20E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
368764.68	3758079.93	0.00E+00	7.00E-05	1.30E-04	1.20E-04	6.00E-05	1.20E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
368900.00	3754500.00	0.00E+00	4.00E-05	9.00E-05	8.00E-05	4.00E-05	1.10E-04	0.00E+00	2.00E-05	0.00E+00	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
368900.00	3759500.00	0.00E+00	5.00E-05	9.00E-05	8.00E-05	4.00E-05	1.00E-04	0.00E+00	3.00E-05	0.00E+00	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00
368900.00	3761500.00	0.00E+00	2.00E-05	6.00E-05	5.00E-05	3.00E-05	6.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
368900.00	3762500.00	0.00E+00	2.00E-05	5.00E-05	4.00E-05	2.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
368900.00	3763500.00	0.00E+00	1.00E-05	4.00E-05	4.00E-05	2.00E-05	4.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368900.00	3764500.00	0.00E+00	1.00E-05	3.00E-05	3.00E-05	2.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368944.10	3758186.12	0.00E+00	7.00E-05	1.30E-04	1.20E-04	6.00E-05	1.20E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369206.25	3758147.26	0.00E+00	9.00E-05	1.50E-04	1.30E-04	7.00E-05	1.40E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
369268.49	3758066.34	0.00E+00	9.00E-05	1.60E-04	1.40E-04	7.00E-05	1.40E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
369333.85	3757999.43	0.00E+00	1.00E-04	1.70E-04	1.50E-04	7.00E-05	1.50E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
369425.60	3758641.99	0.00E+00	8.00E-05	1.40E-04	1.20E-04	6.00E-05	1.40E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
369599.53	3758634.67	0.00E+00	9.00E-05	1.50E-04	1.30E-04	6.00E-05	1.50E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
369775.29	3758632.83	0.00E+00	1.00E-04	1.70E-04	1.40E-04	6.00E-05	1.60E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
369834.01	3758329.33	1.00E-05	1.20E-04	1.90E-04	1.60E-04	8.00E-05	1.80E-04	0.00E+00	6.00E-05	0.00E+00	1.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
369900.00	3754500.00	1.00E-05	4.00E-05	1.00E-04	9.00E-05	4.00E-05	1.20E-04	0.00E+00	2.00E-05	0.00E+00	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
369900.00	3758500.00	1.00E-05	1.20E-04	1.90E-04	1.60E-04	7.00E-05	1.80E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
369900.00	3759500.00	0.00E+00	5.00E-05	1.20E-04	1.10E-04	6.00E-05	1.10E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_ROG_Annual.xlsx

Annual ROG Summary by Source

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Paving Evaporation, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
369900.00	3761500.00	0.00E+00	2.00E-05	6.00E-05	5.00E-05	3.00E-05	6.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369900.00	3762500.00	0.00E+00	2.00E-05	5.00E-05	4.00E-05	3.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369900.00	3764500.00	0.00E+00	1.00E-05	3.00E-05	3.00E-05	2.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370006.10	3758331.16	1.00E-05	1.40E-04	2.00E-04	1.80E-04	8.00E-05	2.00E-04	0.00E+00	6.00E-05	0.00E+00	1.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
370183.69	3758338.49	1.00E-05	1.50E-04	2.30E-04	1.90E-04	9.00E-05	2.10E-04	0.00E+00	7.00E-05	0.00E+00	2.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
370425.35	3758336.66	1.00E-05	1.80E-04	2.90E-04	2.30E-04	1.00E-04	2.40E-04	0.00E+00	9.00E-05	0.00E+00	2.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
370701.79	3758334.82	1.00E-05	2.20E-04	3.50E-04	2.70E-04	1.10E-04	2.80E-04	0.00E+00	1.10E-04	0.00E+00	2.00E-05	1.90E-04	0.00E+00	0.00E+00	0.00E+00
370780.52	3758327.50	1.00E-05	2.30E-04	3.70E-04	2.90E-04	1.20E-04	2.90E-04	0.00E+00	1.20E-04	0.00E+00	2.00E-05	2.00E-04	0.00E+00	0.00E+00	0.00E+00
370900.00	3759500.00	0.00E+00	5.00E-05	1.20E-04	1.20E-04	8.00E-05	1.20E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
370900.00	3760500.00	0.00E+00	3.00E-05	8.00E-05	8.00E-05	4.00E-05	7.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
370900.00	3762500.00	0.00E+00	2.00E-05	5.00E-05	4.00E-05	3.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370900.00	3763500.00	0.00E+00	1.00E-05	4.00E-05	4.00E-05	2.00E-05	4.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370900.00	3764500.00	0.00E+00	1.00E-05	3.00E-05	3.00E-05	2.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371295.29	3758036.94	1.00E-05	7.00E-04	9.00E-04	5.80E-04	2.10E-04	4.80E-04	0.00E+00	2.90E-04	0.00E+00	3.00E-05	3.30E-04	0.00E+00	0.00E+00	0.00E+00
371421.46	3758118.19	1.00E-05	5.40E-04	8.30E-04	6.20E-04	2.20E-04	4.60E-04	0.00E+00	3.10E-04	0.00E+00	3.00E-05	2.70E-04	0.00E+00	0.00E+00	0.00E+00
371550.51	3758209.00	1.00E-05	3.90E-04	7.20E-04	6.50E-04	2.30E-04	4.40E-04	0.00E+00	2.90E-04	0.00E+00	2.00E-05	2.20E-04	0.00E+00	0.00E+00	0.00E+00
371685.28	3758299.81	1.00E-05	3.00E-04	6.20E-04	6.70E-04	2.50E-04	4.20E-04	0.00E+00	2.60E-04	0.00E+00	2.00E-05	1.90E-04	0.00E+00	0.00E+00	0.00E+00
371754.11	3758291.20	1.00E-05	3.00E-04	6.50E-04	7.30E-04	2.70E-04	4.40E-04	0.00E+00	2.70E-04	0.00E+00	2.00E-05	1.90E-04	0.00E+00	0.00E+00	0.00E+00
371807.64	3758213.78	1.00E-05	3.60E-04	7.60E-04	9.00E-04	3.00E-04	4.90E-04	0.00E+00	3.40E-04	0.00E+00	2.00E-05	2.10E-04	0.00E+00	0.00E+00	0.00E+00
371874.55	3758164.07	1.00E-05	4.20E-04	8.50E-04	1.09E-03	3.40E-04	5.30E-04	0.00E+00	4.20E-04	0.00E+00	2.00E-05	2.30E-04	0.00E+00	0.00E+00	0.00E+00
371900.00	3758500.00	0.00E+00	1.90E-04	4.80E-04	5.60E-04	2.60E-04	3.70E-04	0.00E+00	1.90E-04	0.00E+00	1.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
371900.00	3759500.00	0.00E+00	7.00E-05	1.80E-04	1.80E-04	1.10E-04	1.70E-04	0.00E+00	6.00E-05	0.00E+00	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
371900.00	3762500.00	0.00E+00	2.00E-05	4.40E-05	4.00E-05	2.00E-05	4.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371900.00	3763500.00	0.00E+00	1.00E-05	4.00E-05	4.00E-05	2.00E-05	4.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371933.81	3758104.81	1.00E-05	5.40E-04	1.00E-03	1.40E-03	3.90E-04	5.80E-04	0.00E+00	5.50E-04	0.00E+00	3.00E-05	2.60E-04	0.00E+00	0.00E+00	0.00E+00
372241.00	3757883.00	1.00E-05	1.00E-03	2.33E-03	1.02E-02	9.10E-04	8.70E-04	0.00E+00	2.14E-03	0.00E+00	5.00E-05	5.00E-04	0.00E+00	0.00E+00	0.00E+00
372241.00	3757983.00	1.00E-05	8.00E-04	1.58E-03	3.69E-03	7.70E-04	7.30E-04	0.00E+00	9.20E-04	0.00E+00	4.00E-05	3.80E-04	0.00E+00	0.00E+00	0.00E+00
372341.00	3757883.00	1.00E-05	9.20E-04	2.32E-03	1.14E-02	1.17E-03	8.90E-04	0.00E+00	1.84E-03	0.00E+00	5.00E-05	5.00E-04	0.00E+00	0.00E+00	0.00E+00
372341.00	3757983.00	1.00E-05	7.50E-04	1.62E-03	4.15E-03	9.70E-04	7.50E-04	0.00E+00	9.50E-04	0.00E+00	4.00E-05	3.90E-04	0.00E+00	0.00E+00	0.00E+00
372900.00	3753500.00	0.00E+00	3.00E-05	9.00E-05	9.00E-05	4.00E-05	1.00E-04	0.00E+00	2.00E-05	0.00E+00	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3754500.00	0.00E+00	5.00E-05	1.40E-04	1.80E-04	6.00E-05	1.60E-04	0.00E+00	3.00E-05	0.00E+00	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3759500.00	0.00E+00	6.00E-05	1.90E-04	1.90E-04	1.30E-04	1.80E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3760500.00	0.00E+00	3.00E-05	1.10E-04	1.10E-04	6.00E-05	1.00E-04	0.00E+00	3.00E-05	0.00E+00	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3761500.00	0.00E+00	2.00E-05	6.00E-05	6.00E-05	3.00E-05	6.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3762500.00	0.00E+00	2.00E-05	5.00E-05	4.00E-05	3.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3763500.00	0.00E+00	1.00E-05	4.00E-05	4.00E-05	2.00E-05	4.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3764500.00	0.00E+00	1.00E-05	3.00E-05	3.00E-05	2.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
372941.00	3756983.00	5.00E-05	1.50E-04	1.84E-03	9.70E-04	4.00E-04	2.13E-03	0.00E+00	9.00E-05	0.00E+00	2.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
372941.00	3757083.00	4.00E-05	1.60E-04	3.15E-03	1.48E-03	4.80E-04	3.72E-03	0.00E+00	1.10E-04	0.00E+00	2.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
372941.00	3757183.00	3.00E-05	1.80E-04	5.20E-03	2.91E-03	6.00E-04	6.06E-03	0.00E+00	1.30E-04	0.00E+00	2.00E-05	2.10E-04	0.00E+00	0.00E+00	0.00E+00
372941.00	3757283.00	2.00E-05	2.00E-04	6.61E-03	4.50E-03	7.60E-04	8.56E-03	0.00E+00	1.70E-04	0.00E+00	2.00E-05	2.50E-04	0.00E+00	0.00E+00	0.00E+00
372941.00	3757383.00	2.00E-05	2.30E-04	4.84E-03	3.27E-03	9.80E-04	8.57E-03	0.00E+00	2.10E-04	0.00E+00	3.00E-05	2.80E-04	0.00E+00	0.00E+00	0.00E+00
372941.00	3757483.00	2.00E-05	2.70E-04	3.18E-03	2.31E-03	1.23E-03	6.55E-03	0.00E+00	2.60E-04	0.00E+00	3.00E-05	3.00E-04	0.00E+00	0.00E+00	0.00E+00
372941.00	3757583.00	1.00E-05	3.00E-04	2.30E-03	1.92E-03	1.55E-03	5.49E-03	0.00E+00	3.20E-04	0.00E+00	3.00E-05	3.20E-04	0.00E+00	0.00E+00	0.00E+00
372941.00	3757683.00	1.00E-05	3.

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Paving Evaporation, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
373541.00	3756983.00	5.00E-05	1.50E-04	2.32E-03	1.19E-03	4.50E-04	2.72E-03	0.00E+00	1.00E-04	0.00E+00	2.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
373541.00	3757083.00	3.00E-05	1.60E-04	4.24E-03	1.95E-03	5.40E-04	6.09E-03	0.00E+00	1.20E-04	0.00E+00	2.00E-05	2.00E-04	0.00E+00	0.00E+00	0.00E+00
373541.00	3757183.00	3.00E-05	1.90E-04	7.45E-03	4.47E-03	6.90E-04	1.05E-02	0.00E+00	1.40E-04	0.00E+00	2.30E-05	2.30E-04	0.00E+00	0.00E+00	0.00E+00
373541.00	3757283.00	2.00E-05	2.20E-04	9.08E-03	6.65E-03	9.10E-04	1.80E-02	0.00E+00	1.80E-04	0.00E+00	3.00E-05	2.60E-04	0.00E+00	0.00E+00	0.00E+00
373541.00	3757383.00	2.00E-05	2.50E-04	5.16E-03	3.49E-03	1.19E-03	1.55E-02	0.00E+00	2.30E-04	0.00E+00	3.00E-05	3.00E-04	0.00E+00	0.00E+00	0.00E+00
373541.00	3757483.00	2.00E-05	2.90E-04	3.29E-03	2.50E-03	1.59E-03	9.68E-03	0.00E+00	3.00E-04	0.00E+00	3.00E-05	3.20E-04	0.00E+00	0.00E+00	0.00E+00
373541.00	3757583.00	1.00E-05	3.20E-04	2.39E-03	2.11E-03	2.08E-03	8.57E-03	0.00E+00	3.60E-04	0.00E+00	3.00E-05	3.40E-04	0.00E+00	0.00E+00	0.00E+00
373541.00	3757683.00	1.00E-05	3.50E-04	1.95E-03	1.95E-03	3.16E-03	7.41E-03	0.00E+00	4.10E-04	0.00E+00	4.00E-05	3.50E-04	0.00E+00	0.00E+00	0.00E+00
366455.27	3763213.67	0.00E+00	1.00E-05	3.00E-05	3.00E-05	2.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366669.62	3763342.53	0.00E+00	1.00E-05	3.00E-05	3.00E-05	2.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366671.31	3762769.21	0.00E+00	1.00E-05	4.00E-05	3.00E-05	2.00E-05	4.00E-05	0.00E+00	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367494.53	3758314.82	0.00E+00	4.00E-05	8.00E-05	7.00E-05	4.00E-05	8.00E-05	0.00E+00	2.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367575.16	3764900.80	0.00E+00	1.00E-05	3.00E-05	3.00E-05	1.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367638.49	3757975.16	0.00E+00	5.00E-05	9.00E-05	8.00E-05	4.00E-05	9.00E-05	0.00E+00	2.00E-05	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367728.62	3761967.19	0.00E+00	2.00E-05	5.00E-05	4.00E-05	2.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367787.59	3758292.62	0.00E+00	4.00E-05	9.00E-05	8.00E-05	4.00E-05	8.00E-05	0.00E+00	2.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367831.34	3763245.91	0.00E+00	1.00E-05	4.00E-05	3.00E-05	2.00E-05	4.00E-05	0.00E+00	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367900.00	3758500.00	0.00E+00	4.00E-05	8.00E-05	8.00E-05	4.00E-05	8.00E-05	0.00E+00	2.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367926.08	3763311.16	0.00E+00	1.00E-05	4.00E-05	3.00E-05	2.00E-05	4.00E-05	0.00E+00	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367964.98	3758232.97	0.00E+00	5.00E-05	9.00E-05	9.00E-05	4.00E-05	9.00E-05	0.00E+00	3.00E-05	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367976.37	3763336.74	0.00E+00	1.00E-05	4.00E-05	3.00E-05	2.00E-05	4.00E-05	0.00E+00	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367978.91	3758390.10	0.00E+00	4.00E-05	9.00E-05	8.00E-05	4.00E-05	8.00E-05	0.00E+00	2.00E-05	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368188.78	3758591.24	0.00E+00	5.00E-05	9.00E-05	8.00E-05	4.00E-05	9.00E-05	0.00E+00	2.00E-05	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368501.11	3763632.38	0.00E+00	2.00E-05	5.00E-05	5.00E-05	3.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368505.49	3758571.22	0.00E+00	5.00E-05	9.00E-05	9.00E-05	5.00E-05	9.00E-05	0.00E+00	2.00E-05	0.00E+00	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368673.29	3761677.69	0.00E+00	2.00E-05	5.00E-05	5.00E-05	3.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368693.42	3758359.47	0.00E+00	6.00E-05	1.10E-04	1.00E-04	5.00E-05	1.10E-04	0.00E+00	3.00E-05	0.00E+00	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368842.92	3761590.39	0.00E+00	2.00E-05	5.00E-05	5.00E-05	3.00E-05	6.00E-05	0.00E+00	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368869.11	3754097.89	0.00E+00	3.00E-05	8.00E-05	7.00E-05	3.00E-05	9.00E-05	0.00E+00	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368869.83	3765067.00	0.00E+00	1.00E-05	3.00E-05	2.00E-05	1.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368969.99	3761647.20	0.00E+00	2.00E-05	5.00E-05	5.00E-05	3.00E-05	6.00E-05	0.00E+00	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368970.54	3754677.64	0.00E+00	4.00E-05	9.00E-05	8.00E-05	4.00E-05	1.10E-04	0.00E+00	2.00E-05	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369007.11	3762513.11	0.00E+00	2.00E-05	5.00E-05	4.00E-05	2.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369227.99	3762251.91	0.00E+00	2.00E-05	5.00E-05	5.00E-05	2.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369242.37	3754695.62	1.00E-05	4.00E-05	1.00E-04	9.00E-05	4.00E-05	1.20E-04	0.00E+00	2.00E-05	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369456.98	3762567.48	0.00E+00	2.00E-05	5.00E-05	4.00E-05	2.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369504.00	3754702.08	1.00E-05	4.00E-05	1.10E-04	9.00E-05	4.00E-05	1.30E-04	0.00E+00	2.00E-05	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369767.91	3761150.98	0.00E+00	3.00E-05	7.00E-05	6.00E-05	3.00E-05	7.00E-05	0.00E+00	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369809.34	3764567.65	0.00E+00	1.00E-05	3.00E-05	3.00E-05	1.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369845.18	3754154.97	1.00E-05	3.00E-05	8.00E-05	7.00E-05	3.00E-05	9.00E-05	0.00E+00	2.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369848.41	3753976.49	1.00E-05	4.00E-05	7.00E-05	7.00E-05	3.00E-05	9.00E-05	0.00E+00	2.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370097.88	3760014.31	0.00E+00	3.00E-05	9.00E-05	9.00E-05	5.00E-05	9.00E-05	0.00E+00	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370150.95	3754699.75	1.00E-05	5.00E-05	1.20E-04	1.10E-04	4.00E-05	1.40E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
370192.96	3758860.70	0.00E+00	9.00E-05	1.80E-04	1.60E-04	7.00E-05	1.60E-04	0.00E+00	6.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
370243.17	3759622.98	0.00E+00	4.00E-05	1.20E-04	1.20E-04	6.00E-05	1.00E-04	0.00E+00	3.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370246.20	3754243.12	1.00E-05	4.00E-05	9.00E-05	9.00E-05	4.00E-05	1.10E-04	0.00E+00	2.00E-05	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370290.74	3759464.60	0.00E+00	5.00E-05	1.30E-04	1.30E-04	6.00E-05	1.10E-04	0.00E+00	3.00E-05	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370608.78	3762239.97	0.00E+00	2.00E-05	5.00E-05	5.00E-05	3.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370614.80	3762181.53	0.00E+00	2.00E-05	5.00E-05	5.00E-05	3.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370625.96	3763759.08	0.00E+00	1.00E-05	3.00E-05	3.00E-05	2.00E-05	4.00E-05	0.00E+00	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370723.56	3763867.78	0.00E+00	1.00E-05	3.00E-05	3.00E-05	2.00E-05	4.00E-05	0.00E+00	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370968.58	3759443.63	0.00E+00	6.00E-05	1.30E-04	1.30E-04	8.00E-05	1.20E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
371139.14	3758179.30	1.00E-05	3.80E-04	5.80E-04	4.10E-04	1.70E-04	3.60E-04	0.00E+00	1.90E-04	0.00E+00	3.00E-05	2.70E-04	0.00E+00	0.00E+00	0.00E+00
371516.05	3762577.75	0.00E+00	2.00E-05	5.00E-05	5.00E-05	3.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371721.40	3759371.61	0.00E+00	8.00E-05	1.90E-04	1.90E-04	1.10E-04	1.70E-04	0.00E+00	6.00E-05	0.00E+00	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
371973.81	3758892.65	0.00E+00	1.10E-04	3.00E-04	3.30E-04	1.90E-04	2.60E-04	0.00E+00	1.00E-04	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
372687.72	3759513.01	0.00E+00	6.00E-05	1.80E-04	2.00E-04	1.20E-04	1.80E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
372943.49	3761051.66	0.00E+00	3.00E-05	8.00E-05	7.00E-05	4.00E-05	7.00E-05	0.00E+00	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373546.52	3760907.48	0.00E+00	2.00E-05	8.00E-05	8.00E-05	5.00E-05	8.00E-05	0.00E+00	2.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373736.60	3765603.93	2.50E-04	2.70E-04	5.70E-04	4.50E-04	2.10E-04	5.70E-04	0.00E+00	6.00E-05	0.00E+00	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
373758.20	3758043.23	1.00E-05	3.20E-04	1.04E-03	1.57E-03	2.62E-03	9.90E-04	0.00E+00	3.60E-04	0.00E+00	3.00E-05	2.70E-04	0.00E+00	0.00E+00	0.00E+00
373781.58	3753802.14	7.00E-05	1.10E-04	2.80E-04	7.20E-04	1.10E-04	2.90E-04	0.00E+00	4.00E-05	0.00E+00	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373814.20	3756040.57	2.00E-04	2.20E-04	3.30E-04	1.30E-04	3.40E-04	0.00E+00	0.00E+00	5.00E-05	0.00E+00	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373990.06	3753826.14	1.00E-05	3.00E-05	9.00E-05	9.00E-05	4.00E-05	1.00E-04	0.00E+00	2.00E-05	0.00E+00	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_ROG_Annual.xlsx

Annual ROG Summary by Source

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Paving Evaporation, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
374057.73	3758196.51	1.00E-05	2.60E-04	7.80E-04	1.08E-03	1.31E-03	7.00E-04	0.00E+00	2.70E-04	0.00E+00	2.00E-05	2.20E-04	0.00E+00	0.00E+00	0.00E+00
374070.95	3758673.42	1.00E-05	1.70E-04	4.10E-04	5.00E-04	3.40E-04	3.30E-04	0.00E+00	1.40E-04	0.00E+00	1.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
374561.05	3757642.94	2.00E-05	1.80E-04	1.34E-03	9.70E-04	5.00E-04	1.61E-03	0.00E+00	1.50E-04	0.00E+00	2.00E-05	1.90E-04	0.00E+00	0.00E+00	0.00E+00
374688.84	3758984.90	0.00E+00	1.20E-04	3.00E-04	3.30E-04	2.10E-04	2.50E-04	0.00E+00	1.00E-04	0.00E+00	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
374693.96	3758983.17	0.00E+00	1.20E-04	3.00E-04	3.30E-04	2.10E-04	2.50E-04	0.00E+00	1.00E-04	0.00E+00	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
374717.46	3762574.39	0.00E+00	1.00E-05	3.00E-05	3.00E-05	1.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375503.80	3764537.77	0.00E+00	1.00E-05	3.00E-05	3.00E-05	1.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375614.97	3760555.10	0.00E+00	4.00E-05	9.00E-05	9.00E-05	6.00E-05	9.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
375718.04	3758204.95	1.00E-05	1.40E-04	6.30E-04	5.60E-04	4.30E-04	7.00E-04	0.00E+00	1.20E-04	0.00E+00	1.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
375902.79	3764940.52	0.00E+00	1.00E-05	3.00E-05	2.00E-05	1.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375908.38	3763938.71	0.00E+00	1.00E-05	3.00E-05	3.00E-05	2.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375920.60	3762083.39	0.00E+00	2.00E-05	4.00E-05	4.00E-05	2.00E-05	4.00E-05	0.00E+00	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376709.15	3763688.48	2.00E-05	4.00E-05	1.00E-04	1.20E-04	4.00E-05	1.10E-04	0.00E+00	2.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376814.39	3754856.21	0.00E+00	2.00E-05	6.00E-05	6.00E-05	3.00E-05	7.00E-05	0.00E+00	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377050.15	3761774.29	0.00E+00	2.00E-05	6.00E-05	6.00E-05	4.00E-05	6.00E-05	0.00E+00	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377052.34	3761911.90	0.00E+00	2.00E-05	6.00E-05	5.00E-05	3.00E-05	6.00E-05	0.00E+00	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377227.14	3756422.42	2.00E-05	3.00E-05	8.00E-05	1.10E-04	4.00E-05	9.00E-05	0.00E+00	2.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377237.88	3763993.21	0.00E+00	1.00E-05	3.00E-05	3.00E-05	2.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377313.01	3756205.13	1.00E-05	3.00E-05	8.00E-05	9.00E-05	4.00E-05	9.00E-05	0.00E+00	2.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377330.56	3760754.60	0.00E+00	4.00E-05	1.00E-04	1.00E-04	5.00E-05	9.00E-05	0.00E+00	3.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377342.37	3764027.27	0.00E+00	1.00E-05	3.00E-05	3.00E-05	2.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377388.19	3762578.39	0.00E+00	2.00E-05	5.00E-05	4.00E-05	2.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377563.47	3760248.44	0.00E+00	5.00E-05	1.30E-04	1.20E-04	4.00E-05	1.20E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
377753.42	3759272.76	1.00E-05	8.00E-05	2.50E-04	2.40E-04	1.70E-04	2.60E-04	0.00E+00	6.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
377839.66	3764649.02	0.00E+00	1.00E-05	2.00E-05	2.00E-05	1.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377841.65	3762246.94	0.00E+00	2.00E-05	5.00E-05	5.00E-05	3.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377908.39	3762502.03	0.00E+00	2.00E-05	5.00E-05	4.00E-05	3.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377916.00	3755241.12	0.00E+00	1.00E-05	5.00E-05	5.00E-05	2.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377924.86	3763642.88	0.00E+00	1.00E-05	3.00E-05	3.00E-05	2.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377967.05	3762224.48	0.00E+00	2.00E-05	5.00E-05	5.00E-05	3.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378003.52	3753139.05	0.00E+00	1.00E-05	4.00E-05	4.00E-05	2.00E-05	4.00E-05	0.00E+00	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378022.11	3755897.25	1.00E-05	2.00E-05	5.00E-05	6.00E-05	2.00E-05	6.00E-05	0.00E+00	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378066.59	3761432.90	0.00E+00	3.00E-05	7.00E-05	7.00E-05	4.00E-05	6.00E-05	0.00E+00	2.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378209.66	3761422.39	0.00E+00	1.00E-05	3.00E-05	3.00E-05	2.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378212.33	3753511.52	0.00E+00	1.00E-05	3.00E-05	3.00E-05	2.00E-05	4.00E-05	0.00E+00	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378223.51	3760237.39	0.00E+00	6.00E-05	1.50E-04	1.50E-04	9.00E-05	1.50E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
378326.90	3764105.95	0.00E+00	1.00E-05	3.00E-05	3.00E-05	2.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378366.51	3755075.26	0.00E+00	1.00E-05	4.00E-05	4.00E-05	2.00E-05	4.00E-05	0.00E+00	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378370.05	3759869.86	0.00E+00	7.00E-05	1.80E-04	1.80E-04	1.20E-04	1.80E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
378781.96	3760336.17	0.00E+00	5.00E-05	1.40E-04	1.40E-04	9.00E-05	1.40E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
378862.39	3757229.87	1.00E-05	4.00E-05	1.10E-04	1.00E-04	3.00E-05	1.30E-04	0.00E+00	2.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3759500.00	0.00E+00	3.00E-05	6.00E-05	5.00E-05	2.00E-05	6.00E-05	0.00E+00	1.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367900.00	3759500.00	0.00E+00	4.00E-05	7.00E-05	6.00E-05	3.00E-05	7.00E-05	0.00E+00	2.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3760500.00	0.00E+00	2.00E-05	5.00E-05	5.00E-05	2.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3761500.00	0.00E+00	2.

Pollutant: ROG, Emissions Source: Paving Evaporation, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
373900.00	3762500.00	0.00E+00	1.00E-05	4.00E-05	3.00E-05	2.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373900.00	3763500.00	0.00E+00	1.00E-05	2.00E-05	2.00E-05	1.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374900.00	3753500.00	0.00E+00	2.00E-05	7.00E-05	7.00E-05	3.00E-05	7.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
374900.00	3758500.00	1.00E-05	1.70E-04	5.10E-04	6.00E-04	5.60E-04	5.00E-04	0.00E+00	1.60E-04	0.00E+00	2.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
375900.00	3754500.00	0.00E+00	2.00E-05	7.00E-05	7.00E-05	3.00E-05	8.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
375900.00	3757500.00	3.00E-05	1.00E-04	4.90E-04	3.50E-04	1.40E-04	5.50E-04	0.00E+00	6.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
375900.00	3758500.00	1.00E-05	1.40E-04	5.00E-04	4.90E-04	3.90E-04	5.30E-04	0.00E+00	1.20E-04	0.00E+00	1.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
375900.00	3759500.00	0.00E+00	9.00E-05	2.10E-04	2.20E-04	1.40E-04	1.80E-04	0.00E+00	7.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3753500.00	0.00E+00	1.00E-05	5.00E-05	4.00E-05	2.00E-05	5.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3754500.00	0.00E+00	1.00E-05	5.00E-05	5.00E-05	3.00E-05	6.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3757500.00	2.00E-05	7.00E-05	3.00E-04	2.30E-04	9.00E-05	3.40E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3763500.00	0.00E+00	1.00E-05	3.00E-05	3.00E-05	2.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377900.00	3758500.00	1.00E-05	8.00E-05	3.10E-04	2.60E-04	1.60E-04	3.30E-04	0.00E+00	6.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
378900.00	3754500.00	0.00E+00	1.00E-05	3.00E-05	3.00E-05	1.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
378900.00	3761500.00	0.00E+00	3.00E-05	7.00E-05	7.00E-05	4.00E-05	7.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
379900.00	3753500.00	0.00E+00	1.00E-05	3.00E-05	3.00E-05	1.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
379900.00	3758500.00	1.00E-05	6.00E-05	1.90E-04	1.60E-04	9.00E-05	2.10E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
380900.00	3764500.00	0.00E+00	1.00E-05	3.00E-05	3.00E-05	1.00E-05	3.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
381900.00	3753500.00	0.00E+00	1.00E-05	2.00E-05	2.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
381900.00	3758500.00	1.00E-05	4.00E-05	1.20E-04	1.10E-04	5.00E-05	1.40E-04	0.00E+00	2.00E-05	0.00E+00	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
383900.00	3758500.00	1.00E-05	3.00E-05	8.00E-05	8.00E-05	4.00E-05	9.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
383900.00	3759500.00	1.00E-05	4.00E-05	1.10E-04	1.00E-04	5.00E-05	1.10E-04	0.00E+00	2.00E-05	0.00E+00	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
383900.00	3760500.00	0.00E+00	4.00E-05	1.10E-04	1.00E-04	6.00E-05	1.10E-04	0.00E+00	2.00E-05	0.00E+00	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
383900.00	3761500.00	0.00E+00	3.00E-05	9.00E-05	8.00E-05	5.00E-05	9.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
368085.00	3755395.00	0.00E+00	4.00E-05	8.00E-05	7.00E-05	3.00E-05	9.00E-05	0.00E+00	2.00E-05	0.00E+00	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
368185.00	3755395.00	0.00E+00	5.00E-05	1.00E-04	8.00E-05	3.00E-05	1.00E-04	0.00E+00	2.00E-05	0.00E+00	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
368285.00	3755395.00	0.00E+00	5.00E-05	9.00E-05	8.00E-05	3.00E-05	9.00E-05	0.00E+00	2.00E-05	0.00E+00	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
368385.00	3755395.00	0.00E+00	5.00E-05	9.00E-05	8.00E-05	3.00E-05	1.00E-04	0.00E+00	2.00E-05	0.00E+00	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
368485.00	3755395.00	0.00E+00	5.00E-05	1.00E-04	8.00E-05	3.00E-05	1.00E-04	0.00E+00	2.00E-05	0.00E+00	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
368585.00	3755395.00	0.00E+00	6.00E-05	1.00E-04	9.00E-05	3.00E-05	1.00E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
368685.00	3755395.00	0.00E+00	6.00E-05	1.00E-04	9.00E-05	4.00E-05	1.00E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
368785.00	3755395.00	0.00E+00	6.00E-05	1.00E-04	9.00E-05	4.00E-05	1.10E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
368885.00	3755395.00	0.00E+00	6.00E-05	1.10E-04	1.00E-04	4.00E-05	1.10E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
368985.00	3755395.00	0.00E+00	6.00E-05	1.10E-04	1.00E-04	4.00E-05	1.20E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369085.00	3755395.00	0.00E+00	6.00E-05	1.10E-04	1.00E-04	4.00E-05	1.20E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369185.00	3755395.00	0.00E+00	6.00E-05	1.10E-04	1.10E-04	5.00E-05	1.30E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369285.00	3755395.00	0.00E+00	6.00E-05	1.20E-04	1.10E-04	5.00E-05	1.40E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369385.00	3755395.00	0.00E+00	6.00E-05	1.20E-04	1.20E-04	6.00E-05	1.50E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369485.00	3755395.00	0.00E+00	6.00E-05	1.20E-04	1.30E-04	7.00E-05	1.70E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369585.00	3755395.00	1.00E-05	6.00E-05	1.20E-04	1.30E-04	7.00E-05	1.80E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369685.00	3755395.00	1.00E-05	7.00E-05	1.30E-04	1.30E-04	7.00E-05	1.80E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369785.00	3755395.00	1.00E-05	7.00E-05	1.30E-04	1.30E-04	7.00E-05	1.90E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
369885.00	3755395.00	1.00E-05	7.00E-05	1.40E-04	1.30E-04	7.00E-05	2.00E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
369985.00	3755395.00	1.00E-05	7.00E-05	1.50E-04	1.40E-04	6.00E-05	1.90E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
370085.00	3755395.00	1.00E-05	7.00E-05	1.50E-04	1.40E-04	6.00E-05	2.00E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
370185.00	3755395.00	1.00E-05	8.00E-05	1.60E-04	1.40E-04	6.00E-05	2.10E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
370285.00	3755395.00	1.00E-05	8.00E-05	1.70E-04	1.50E-04	6.00E-05	2.20E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
370377.81	3755313.33	1.00E-05	7.00E-05	1.80E-04	1.50E-04	6.00E-05	2.10E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
370477.81	3755313.33	1.00E-05	8.00E-05	1.80E-04	1.50E-04	6.00E-05	2.10E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
370577.81	3755313.33	1.00E-05	8.00E-05	1.80E-04	1.50E-04	6.00E-05	2.10E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
370677.81	3755313.33	1.00E-05	8.00E-05	1.80E-04	1.50E-04	6.00E-05	2.10E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
370777.81	3755313.33	1.00E-05	9.00E-05	1.90E-04	1.50E-04	6.00E-05	2.10E-04	0.00E+00	3.00E-05	0.00E+00	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
370877.81	3755313.33	1.00E-05	9.00E-05	1.90E-04	1.60E-04	6.00E-05	2.20E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
370977.81	3755313.33	1.00E-05	9.00E-05	1.90E-04	1.70E-04	6.00E-05	2.30E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
371077.81	3755313.33	1.00E-05	9.00E-05	1.90E-04	1.80E-04	7.00E-05	2.40E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
371177.81	3755313.33	2.00E-05	9.00E-05	1.90E-04	1.80E-04	7.00E-05	2.50E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
371277.81	3755313.33	2.00E-05	9.00E-05	2.00E-04	1.90E-04	7.00E-05	2.50E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
371377.81	3755313.33	2.00E-05	1.00E-04	2.00E-04	2.00E-04	7.00E-05	2.60E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
371477.81	3755313.33	2.00E-05	1.00E-04	2.10E-04	2.00E-04	7.00E-05	2.60E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
371577.81	3755313.33	2.00E-05	1.00E-04	2.10E-04	2.10E-04	7.00E-05	2.70E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
371677.81	3755313.33	3.00E-05	1.00E-04	2.10E-04	2.20E-04	7.00E-05	2.80E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
371777.81	3755313.33	3.00E-05	1.00E-04	2.10E-04	2.40E-04	8.00E-05	2.80E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
371871.82	3755232.57	3.00E-05	9.00E-05	2.00E-04	2.40E-04	7.00E-05	2.70E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
371971.82	3755232.57	3.00E-05	9.00E-05	2.10E-04	2.50E-04	8.00E-05	2.70E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: ROG, Emissions Source: Paving Evaporation, Units: ug/m3, Concentrations, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
372071.82	3755232.57	3.00E-05	9.00E-05	2.10E-04	2.70E-04	8.00E-05	2.70E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
372171.82	3755232.57	3.00E-05	9.00E-05	2.20E-04	3.00E-04	8.00E-05	2.80E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
372271.82	3755232.57	3.00E-05	9.00E-05	2.20E-04	3.40E-04	8.00E-05	2.80E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
372371.82	3755232.57	3.00E-05	9.00E-05	2.20E-04	3.80E-04	8.00E-05	2.80E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
372471.82	3755232.57	3.00E-05	8.00E-05	2.20E-04	4.50E-04	8.00E-05	2.80E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
372571.82	3755232.57	3.00E-05	8.00E-05	2.20E-04	5.40E-04	8.00E-05	2.80E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
372671.82	3755232.57	3.00E-05	8.00E-05	2.20E-04	6.90E-04	8.00E-05	2.70E-04	0.00E+00	5.00E-05	0.00E+00	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
372771.82	3755232.57	3.00E-05	8.00E-05	2.20E-04	8.90E-04	9.00E-05	2.70E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
372871.82	3755232.57	3.00E-05	8.00E-05	2.20E-04	1.12E-03	9.00E-05	2.60E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
372971.82	3755232.57	3.00E-05	8.00E-05	2.20E-04	1.06E-03	9.00E-05	2.60E-04	0.00E+00	4.00E-05	0.00E+00	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_ROG_Annual.xlsx Annual ROG Summary by Source

Attachment F.*1.*3

Construction Concentrations– Toxic Air Contaminants

- Annual PM10 Inputs

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Brake Wear, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
369131.40	3758945.42	1.00E-05	7.10E-04	9.40E-04	8.10E-04	4.90E-04	2.40E-04	2.40E-04	1.00E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370190.78	3758848.26	1.00E-05	8.50E-04	1.22E-03	8.80E-04	6.70E-04	3.40E-04	3.70E-04	1.70E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370747.03	3763937.58	0.00E+00	9.00E-05	1.50E-04	1.20E-04	1.00E-04	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370757.72	3755124.52	1.00E-05	1.31E-03	1.76E-03	1.70E-03	9.60E-04	4.50E-04	4.00E-04	1.30E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370946.70	3758260.69	1.00E-05	1.99E-03	2.64E-03	1.52E-03	1.09E-03	5.50E-04	9.00E-04	4.20E-04	1.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
371368.79	3754218.82	1.00E-05	7.00E-04	9.30E-04	8.60E-04	4.80E-04	2.20E-04	2.10E-04	8.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371786.04	3754168.42	0.00E+00	5.70E-04	8.40E-04	7.90E-04	4.90E-04	2.40E-04	1.80E-04	7.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373756.25	3761779.11	0.00E+00	2.10E-04	2.80E-04	1.80E-04	1.50E-04	8.00E-05	8.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367734.03	3758536.57	1.00E-05	8.90E-04	1.08E-03	1.02E-03	6.10E-04	2.90E-04	2.70E-04	9.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368069.11	3760165.13	0.00E+00	4.00E-04	5.50E-04	4.70E-04	3.20E-04	1.60E-04	1.40E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369125.38	3763066.25	0.00E+00	1.50E-04	2.20E-04	1.80E-04	1.40E-04	7.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369225.45	3764227.42	0.00E+00	1.10E-04	1.70E-04	1.40E-04	1.10E-04	6.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370236.75	3761140.30	0.00E+00	2.10E-04	3.50E-04	3.00E-04	2.40E-04	1.20E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372218.41	3759157.53	1.00E-05	9.90E-04	1.33E-03	8.00E-04	6.50E-04	3.40E-04	3.50E-04	1.60E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
372267.44	3762986.25	0.00E+00	9.00E-05	1.40E-04	9.00E-05	8.00E-05	4.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374498.14	3758643.27	1.00E-05	2.50E-03	3.35E-03	1.75E-03	1.74E-03	9.40E-04	9.70E-04	4.40E-04	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
375472.61	3759680.03	1.00E-05	9.10E-04	1.18E-03	6.80E-04	6.20E-04	3.30E-04	3.50E-04	1.50E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375514.38	3757500.61	2.00E-05	1.22E-03	2.22E-03	1.89E-03	2.02E-03	1.22E-03	4.70E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377395.41	3759189.37	1.00E-05	1.06E-03	1.57E-03	1.02E-03	1.09E-03	5.50E-04	4.10E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
366363.62	3757753.10	1.00E-05	1.29E-03	1.44E-03	1.35E-03	6.50E-04	3.00E-04	3.40E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369385.71	3758351.85	1.00E-05	1.06E-03	1.46E-03	1.43E-03	8.90E-04	4.10E-04	3.30E-04	1.30E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369388.19	3758584.61	1.00E-05	8.70E-04	1.20E-03	1.10E-03	6.70E-04	3.10E-04	2.90E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371727.30	3758286.14	1.00E-05	2.78E-03	3.64E-03	1.79E-03	1.44E-03	7.60E-04	1.01E-03	4.70E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371973.18	3757657.97	4.00E-05	8.40E-02	6.47E-02	5.73E-03	3.73E-03	3.57E-03	6.92E-02	3.86E-02	4.00E-05	3.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
372028.99	3757658.28	4.00E-05	2.36E-01	1.27E-01	5.76E-03	3.79E-03	3.28E-03	5.54E-02	2.88E-02	4.00E-05	3.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
372057.72	3757303.44	1.30E-04	1.18E-02	1.49E-02	8.86E-03	5.43E-03	2.82E-03	4.11E-03	2.91E-03	6.00E-05	4.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
372058.94	3757365.68	1.00E-04	2.02E-02	2.15E-02	8.09E-03	5.18E-03	2.75E-03	5.03E-03	3.41E-03	6.00E-05	4.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
372114.76	3757419.38	8.00E-05	3.33E-02	4.86E-02	7.55E-03	5.07E-03	2.78E-03	6.23E-03	3.64E-03	5.00E-05	4.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
372149.51	3757302.81	1.30E-04	1.03E-02	1.51E-02	8.63E-03	5.64E-03	3.06E-03	3.25E-03	1.94E-03	5.00E-05	3.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
366675.72	3757743.67	1.00E-05	1.42E-03	1.59E-03	1.50E-03	7.20E-04	3.30E-04	3.80E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367105.41	3757963.83	1.00E-05	1.24E-03	1.45E-03	1.38E-03	7.20E-04	3.30E-04	3.40E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367221.30	3757911.68	1.00E-05	1.32E-03	1.54E-03	1.48E-03	7.60E-04	3.50E

Pollutant: PM10, Concentrations, Emissions Source: Brake Wear, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
366952.02	3756405.68	1.00E-05	2.16E-03	2.33E-03	2.16E-03	9.20E-04	4.00E-04	5.60E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366982.97	3757895.00	1.00E-05	1.32E-03	1.51E-03	1.45E-03	7.30E-04	3.40E-04	3.60E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
366990.71	3756317.12	1.00E-05	2.14E-03	2.31E-03	2.13E-03	9.00E-04	3.90E-04	5.60E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367029.39	3756228.58	1.00E-05	2.10E-03	2.27E-03	2.08E-03	8.80E-04	3.90E-04	5.60E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367044.19	3757929.47	1.00E-05	1.28E-03	1.48E-03	1.42E-03	7.20E-04	3.40E-04	3.50E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367068.08	3756140.03	1.00E-05	2.05E-03	2.21E-03	2.02E-03	8.60E-04	3.80E-04	5.50E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367106.77	3756051.48	1.00E-05	1.99E-03	2.16E-03	1.97E-03	8.50E-04	3.70E-04	5.40E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367145.45	3755962.93	1.00E-05	1.93E-03	2.10E-03	1.91E-03	8.30E-04	3.70E-04	5.20E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367163.35	3757937.75	1.00E-05	1.27E-03	1.50E-03	1.44E-03	7.50E-04	3.50E-04	3.50E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367184.14	3755874.38	1.00E-05	1.88E-03	2.05E-03	1.87E-03	8.30E-04	3.70E-04	5.10E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367222.83	3755785.83	1.00E-05	1.83E-03	2.00E-03	1.41E-03	8.00E-04	3.60E-04	5.00E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367261.51	3755697.28	1.00E-05	1.77E-03	1.94E-03	1.79E-03	8.00E-04	3.60E-04	4.80E-04	1.50E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367284.84	3757912.25	1.00E-05	1.33E-03	1.55E-03	1.50E-03	7.70E-04	3.60E-04	3.70E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367300.20	3755608.73	1.00E-05	1.71E-03	1.88E-03	1.74E-03	7.90E-04	3.50E-04	4.60E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367338.88	3755520.18	1.00E-05	1.67E-03	1.85E-03	1.71E-03	7.80E-04	3.50E-04	4.50E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367348.39	3757912.82	1.00E-05	1.33E-03	1.56E-03	1.51E-03	7.80E-04	3.60E-04	3.70E-04	1.30E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367377.57	3755431.63	1.00E-05	1.68E-03	1.85E-03	1.70E-03	7.80E-04	3.50E-04	4.40E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367401.92	3757982.92	1.00E-05	1.24E-03	1.44E-03	1.41E-03	7.60E-04	3.50E-04	3.50E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367464.88	3755430.72	1.00E-05	1.78E-03	1.96E-03	1.79E-03	8.20E-04	3.70E-04	4.60E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367498.60	3757937.52	1.00E-05	1.32E-03	1.56E-03	1.50E-03	7.80E-04	3.70E-04	3.70E-04	1.30E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367539.80	3757864.76	1.00E-05	1.44E-03	1.68E-03	1.63E-03	8.40E-04	3.90E-04	3.90E-04	1.30E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367552.20	3755429.80	1.00E-05	1.89E-03	2.07E-03	1.88E-03	8.50E-04	3.90E-04	4.80E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367596.95	3757879.64	1.00E-05	1.42E-03	1.67E-03	1.62E-03	8.40E-04	3.90E-04	3.90E-04	1.30E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367628.79	3757855.59	1.00E-05	1.47E-03	1.72E-03	1.67E-03	8.70E-04	4.00E-04	4.00E-04	1.40E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367639.51	3755428.89	1.00E-05	2.01E-03	2.19E-03	2.00E-03	9.00E-04	4.10E-04	5.10E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367696.39	3757845.44	1.00E-05	1.50E-03	1.76E-03	1.71E-03	8.90E-04	4.10E-04	4.10E-04	1.40E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367700.81	3758169.46	1.00E-05	1.23E-03	1.45E-03	1.28E-03	6.80E-04	3.20E-04	3.50E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367707.57	3757896.37	1.00E-05	1.43E-03	1.68E-03	1.62E-03	8.50E-04	3.90E-04	4.00E-04	1.40E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367726.83	3755427.97	1.00E-05	2.16E-03	2.34E-03	2.11E-03	9.40E-04	4.30E-04	5.40E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367734.79	3758105.67	1.00E-05	1.28E-03	1.51E-03	1.35E-03	7.20E-04	3.40E-04	3.60E-04	1.30E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367743.72	3758010.21	1.00E-05	1.33E-03	1.54E-03	1.46E-03	7.70E-04	3.60E-04	3.80E-04	1.30E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367785.33	3758200.53	1.00E-05	1.29E-03	1.51E-03	1.28E-03	6.70E-04	3.20E-04	3.70E-04	1.30E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367814.14	3755427.06	1.00E-05	2.32E-03	2.50E-03	2.24E-03	9.90E-04	4.50E-04	5.80E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367830.31	3758150.13	1.00E-05	1.31E-03	1.54E-03	1.35E-03	7.20E-04	3.40E-04	3.70E-04	1.30E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367839.73	3758178.15	1.00E-05	1.33E-03	1.55E-03	1.33E-03	6.90E-04	3.30E-04	3.80E-04	1.30E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367874.18	3755433.41	1.00E-05	2.43E-03	2.61E-03	2.33E-03	1.03E-03	4.70E-04	6.00E-04	1.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367912.80	3758112.41	1.00E-05	1.42E-03	1.66E-03	1.41E-03	7.30E-04	3.40E-04	4.00E-04	1.40E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367934.21	3755439.76	1.00E-05	2.31E-03	2.48E-03	2.42E-03	1.07E-03	4.80E-04	6.30E-04	1.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368001.74	3755450.16	1.00E-05	2.65E-03	2.84E-03	2.53E-03	1.11E-03	5.00E-04	6.60E-04	2.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368067.33	3758044.68	1.00E-05	1.57E-03	1.83E-03	1.56E-03	8.00E-04	3.80E-04	4.40E-04	1.60E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368069.28	3755460.56	1.00E-05	2.79E-03	2.98E-03	2.66E-03	1.16E-03	5.30E-04	7.00E-04	2.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368136.81	3755470.96	2.00E-05	2.92E-03	3.11E-03	2.78E-03	1.22E-03	5.50E-04	7.40E-04	2.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368139.37	3758014.68	1.00E-05	1.59E-03	1.86E-03	1.64E-03	8.60E-04	4.00E-04	4.50E-04	1.60E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368217.94	3755478.99	2.00E-05	3.07E-03	3.26E-03	2.92E-03	1.28E-03	5.70E-04	7.90E-04	2.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368226.20	3757984.68	1.00E-05	1.71E-03	1.98E-03	1.72E-03	8.80E-04	4.10E-04	4.80E-04	1.70E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368310.20	3755477.83	2.00E-05	3.18E-03	3.39E-03	3.05E-03	1.33E-03	6.00E-04	8.40E-04	2.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368312.17	3757967.29	1.00E-05	1.77E-03	2.06E-03	1.77E-03	9.10E-04	4.20E-04	5.10E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368386.06	3757966.42	1.00E-05	1.72E-03	2.02E-03	1.78E-03	9.50E-04	4.40E-04	5.00E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368402.45	3755476.67	2.00E-05	3.28E-03	3.50E-03	3.18E-03	1.39E-03	6.20E-04	9.00E-04	2.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368459.96	3757965.55	1.00E-05	1.73E-03	2.04E-03	1.84E-03	1.01E-03	4.70E-04	5.00E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368494.71	3755475.51	2.00E-05	3.34E-03	3.56E-03	3.30E-03	1.45E-03	6.40E-04	9.40E-04	2.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368533.85	3757964.68	1.00E-05	1.78E-03	2.11E-03	1.93E-03	1.06E-03	4.90E-04	5.10E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368533.98	3757935.39	1.00E-05	1.84E-03	2.17E-03	1.98E-03	1.07E-03	5.00E-04	5.20E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368586.97	3755474.35	2.00E-05	3.40E-03	3.66E-03	3.40E-03	1.49E-03	6.60E-04	9.80E-04	3.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368594.27	3757948.47	1.00E-05	1.83E-03	2.17E-03	2.00E-03	1.10E-03	5.10E-04	5.20E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368657.87	3757978.44	1.00E-05	1.80E-03	2.14E-03	1.98E-03	1.10E-03	5.20E-04	5.10E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368679.22	3755473.19	2.00E-05	3.42E-03	3.71E-03	3.49E-03	1.53E-03	6.70E-04	1.00E-03	3.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368710.99	3758011.46	1.00E-05	1.77E-03	2.11E-03	1.93E-03	1.09E-03	5.10E-04	5.00E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368748.06	3758034.51	1.00E-05	1.77E-03	2.11E-03	1.93E-03	1.07E-03	5.00E-04	5.00E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368771.48	3755472.04	2.00E-05	3.40E-03	3.71E-03	3.54E-03	1.56E-03	6.80E-04	1.02E-03	3.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368806.72	3758070.98	1.00E-05	1.78E-03	2.13E-03	1.92E-03	1.04E-03	4.80E-04	5.00E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368863.73	3755470.88	2.00E-05	3.33E-03	3.67E-03	3.56E-03	1.58E-03	6.80E-04	1.02E-03	3.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368865.39	3758107.46	1.00E-05	1.75E-03	2.11E-03	1.90E-03	1.03E-03	4.70E-04	5.00E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368931.37	3758150.49	1.00E-05	1.66E-03	2.03E-03	1.85E-03	1.03E-03	4.80E-04	4.90E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368955.99	3755469.72	2.00E-05	3.21E-03	3.57E-03	3.54E-03	1.59E-03	6.80E-04	1.01E-03	3.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368974.29	3758177.61	1.00E-05	1.58E-03	1.95E-03	1.81E-03	1.03E-03	4.80E-04	4.70E-04	1.70E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368992.63	3758138.09	1.00E-05	1.66E-03	2.05E-03	1.89E-03	1.07E-03	4.90E-04	5.00E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369011.06	3758086.77	1.00E-05	1.78E-03	2.18E-03	2.00E-03	1.12E-03	5.10E-04	5.30E-04	1.90E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369048.25	3755468.56	2.00E-05	3.02E-03	3.42E-03	3.47E-03	1.58E-03	6.80E-04	9.90E-04	3.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369097.31	3758131.12	1.00E-05	1.59E-03	2.01E-03	1.90E-03	1.12E-03	5.20E-04	5.00E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00

Pollutant: PM10, Concentrations, Emissions Source: Brake Wear, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
369140.50	3755467.40	2.00E-05	2.79E-03	3.22E-03	3.36E-03	1.56E-03	6.70E-04	9.50E-04	3.00E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369216.91	3758091.16	1.00E-05	1.55E-03	2.00E-03	1.96E-03	1.20E-03	5.60E-04	5.10E-04	1.90E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369232.76	3755466.24	2.00E-05	2.59E-03	3.05E-03	3.25E-03	1.52E-03	6.50E-04	8.90E-04	2.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369267.76	3758146.04	1.00E-05	1.41E-03	1.88E-03	1.88E-03	1.18E-03	5.50E-04	4.60E-04	1.70E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369271.60	3758257.04	1.00E-05	1.18E-03	1.60E-03	1.60E-03	1.02E-03	4.70E-04	3.80E-04	1.40E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369323.20	3758086.63	1.00E-05	1.51E-03	2.01E-03	2.01E-03	1.27E-03	5.80E-04	4.90E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369328.65	3758304.45	1.00E-05	1.11E-03	1.52E-03	1.51E-03	9.50E-04	4.40E-04	3.50E-04	1.30E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369329.84	3755464.79	2.00E-05	2.49E-03	2.98E-03	3.16E-03	1.47E-03	6.20E-04	8.10E-04	2.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369342.43	3757939.52	1.00E-05	1.88E-03	2.44E-03	2.44E-03	1.48E-03	6.80E-04	6.00E-04	2.20E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369386.54	3758429.44	1.00E-05	9.90E-04	1.36E-03	1.31E-03	8.10E-04	3.70E-04	3.10E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369387.36	3758507.02	1.00E-05	9.20E-04	1.27E-03	1.19E-03	7.70E-04	3.40E-04	3.00E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369409.11	3758008.60	1.00E-05	1.63E-03	2.19E-03	2.21E-03	1.39E-03	6.40E-04	5.30E-04	2.00E-04	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369426.92	3755463.35	2.00E-05	2.54E-03	3.04E-03	3.14E-03	1.43E-03	6.00E-04	7.50E-04	2.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369468.66	3758583.75	1.00E-05	8.70E-04	1.20E-03	1.07E-03	6.60E-04	3.10E-04	2.90E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369524.00	3755461.90	2.00E-05	2.65E-03	3.15E-03	3.16E-03	1.42E-03	5.90E-04	7.30E-04	2.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369549.13	3758582.89	1.00E-05	9.40E-04	1.28E-03	1.11E-03	6.90E-04	3.30E-04	3.00E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369621.08	3755460.45	2.00E-05	2.72E-03	3.23E-03	3.18E-03	1.44E-03	6.10E-04	7.50E-04	2.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369629.67	3758582.03	1.00E-05	9.20E-04	1.24E-03	1.14E-03	7.10E-04	3.30E-04	3.10E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369710.08	3758581.17	1.00E-05	1.04E-03	1.40E-03	1.16E-03	7.30E-04	3.50E-04	3.30E-04	1.40E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369718.16	3755459.00	2.00E-05	2.67E-03	3.19E-03	3.15E-03	1.48E-03	6.40E-04	7.80E-04	2.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369787.02	3758286.68	1.00E-05	1.29E-03	1.79E-03	1.60E-03	1.00E-03	4.60E-04	4.00E-04	1.60E-04	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369788.19	3758398.38	1.00E-05	1.18E-03	1.64E-03	1.41E-03	8.90E-04	4.20E-04	3.80E-04	1.50E-04	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369789.37	3758489.35	1.00E-05	1.11E-03	1.53E-03	1.29E-03	8.20E-04	3.90E-04	3.60E-04	1.50E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369815.24	3755457.56	2.00E-05	2.49E-03	3.04E-03	3.07E-03	1.53E-03	6.80E-04	7.90E-04	2.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369882.84	3758582.17	1.00E-05	1.00E-03	1.47E-03	1.24E-03	8.70E-04	4.00E-04	4.30E-04	1.70E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369912.32	3755456.11	2.00E-05	2.22E-03	2.79E-03	2.94E-03	1.56E-03	7.10E-04	7.50E-04	2.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369978.66	3758283.45	1.00E-05	1.21E-03	1.74E-03	1.54E-03	1.04E-03	4.80E-04	4.30E-04	1.80E-04	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370009.40	3755454.66	1.00E-05	1.98E-03	2.57E-03	2.81E-03	1.57E-03	7.10E-04	6.80E-04	2.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370056.44	3758282.14	1.00E-05	1.16E-03	1.69E-03	1.48E-03	1.04E-03	4.90E-04	4.30E-04	1.80E-04	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370106.48	3755453.21	1.00E-05	1.87E-03	2.48E-03	2.73E-03	1.55E-03	7.00E-04	6.00E-04	1.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370130.90	3758282.44	1.00E-05	1.15E-03	1.68E-03	1.46E-03	1.03E-03	4.90E-04	4.30E-04	1.80E-04	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370203.56	3755451.77	1.00E-05	1.90E-03	2.52E-03	2.72E-03	1.50E-03	6.70E-04	5.50E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370226.81	3758159.47	1.00E-05	1.35E-03	2.01E-03	1.69E-03	1.20E-03	5.60E-04	4.70E-04	2.00E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370227.55	3758221.46	1.00E-05	1.29E-03	1.90E-03	1.57E-03	1.12E-03	5.30E-04	4.50E-04	2.00E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370228.30	3758283.44	1.00E-05	1.23E-03	1.81E-03	1.47E-03	1.05E-03	4.90E-04	4.40E-04	1.90E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370253.14	3758168.84	1.00E-05	1.36E-03	2.01E-03	1.67E-03	1.18E-03	5.50E-04	4.70E-04	2.10E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370300.64	3755450.52	1.00E-05	1.96E-03	2.60E-03	2.73E-03	1.46E-03	6.50E-04	5.40E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370308.97	3758176.51	1.00E-05	1.35E-03	1.95E-03	1.65E-03	1.16E-03	5.40E-04	4.80E-04	2.10E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370356.87

Pollutant: PM10, Concentrations, Emissions Source: Brake Wear, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
373057.59	3755829.92	2.50E-04	9.40E-04	1.27E-03	1.45E-03	8.60E-04	4.90E-04	2.50E-04	1.00E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373058.79	3755899.65	3.20E-04	1.05E-03	1.34E-03	1.25E-03	9.20E-04	5.20E-04	2.60E-04	1.00E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373077.68	3757731.38	4.00E-05	9.41E-03	2.60E-02	2.40E-02	2.74E-02	1.09E-02	3.96E-03	1.85E-03	2.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
373089.44	3756434.13	2.40E-04	1.37E-03	2.31E-03	1.88E-03	1.75E-03	1.06E-03	4.30E-04	1.60E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373118.11	3756991.19	5.00E-05	2.23E-03	6.16E-03	6.10E-03	6.57E-03	4.22E-03	1.02E-03	3.60E-04	1.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
373137.84	3755759.39	8.00E-05	7.20E-04	1.18E-03	1.65E-03	7.90E-04	4.40E-04	2.30E-04	9.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373138.33	3755829.37	1.70E-04	8.30E-04	1.24E-03	1.39E-03	8.40E-04	4.70E-04	2.40E-04	9.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373138.82	3755899.35	2.40E-04	9.40E-04	1.31E-03	1.23E-03	8.90E-04	5.10E-04	2.50E-04	1.00E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373159.49	3757731.01	4.00E-05	8.42E-03	3.03E-02	3.92E-02	4.50E-02	1.96E-02	3.55E-03	1.63E-03	2.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
373174.45	3756432.91	2.40E-04	1.30E-03	2.18E-03	1.79E-03	1.66E-03	1.01E-03	4.20E-04	1.60E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373179.17	3757023.66	5.00E-05	2.19E-03	6.19E-03	6.43E-03	6.74E-03	4.16E-03	9.10E-04	3.80E-04	1.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
373213.14	3755758.34	8.00E-05	7.00E-04	1.16E-03	1.46E-03	7.70E-04	4.40E-04	2.20E-04	9.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373236.62	3757073.64	5.00E-05	2.19E-03	6.59E-03	7.31E-03	8.62E-03	5.98E-03	9.20E-04	3.00E-04	1.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
373241.30	3757730.64	4.00E-05	7.59E-03	2.91E-02	5.23E-02	9.12E-02	5.48E-02	3.22E-03	1.45E-03	2.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373259.45	3756431.68	2.10E-04	1.23E-03	2.03E-03	1.70E-03	1.58E-03	9.50E-04	3.90E-04	1.50E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373288.44	3757757.29	7.00E-05	6.70E-04	1.14E-03	1.33E-03	7.50E-04	4.30E-04	2.10E-04	8.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373303.06	3757072.90	4.00E-05	2.09E-03	5.70E-03	6.49E-03	7.68E-03	5.77E-03	8.60E-04	2.80E-04	1.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
373317.74	3756432.03	2.10E-04	1.18E-03	1.97E-03	1.65E-03	1.54E-03	9.10E-04	3.80E-04	1.40E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373323.11	3757730.27	4.00E-05	6.89E-03	2.48E-02	4.45E-02	9.08E-02	5.82E-02	2.94E-03	1.30E-03	2.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373323.28	3757744.87	4.00E-05	7.01E-03	2.32E-02	3.36E-02	6.27E-02	3.78E-02	2.97E-03	1.33E-03	2.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373363.74	3755756.24	5.00E-05	6.30E-04	1.12E-03	1.22E-03	7.40E-04	4.30E-04	2.00E-04	8.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373365.13	3755845.96	2.20E-04	8.40E-04	1.19E-03	1.18E-03	8.00E-04	4.60E-04	2.20E-04	8.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373366.53	3755935.69	2.70E-04	9.30E-04	1.27E-03	1.13E-03	8.60E-04	5.00E-04	2.30E-04	9.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373367.92	3756025.41	3.00E-04	1.00E-03	1.35E-03	1.13E-03	9.40E-04	5.50E-04	2.50E-04	1.00E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373369.31	3756115.13	3.30E-04	1.08E-03	1.43E-03	1.16E-03	9.90E-04	6.00E-04	2.70E-04	1.10E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373369.50	3757072.16	4.00E-05	2.00E-03	5.04E-03	5.78E-03	6.78E-03	7.49E-03	8.10E-04	2.70E-04	1.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
373370.37	3757159.75	4.00E-05	2.23E-03	7.82E-03	9.39E-03	1.20E-02	1.29E-02	1.04E-03	2.90E-04	1.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
373370.71	3756204.86	3.20E-04	1.11E-03	1.53E-03	1.27E-03	1.13E-03	6.60E-04	3.00E-04	1.10E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373371.24	3757247.34	5.00E-05	2.55E-03	1.38E-02	3.67E-02	7.82E-02	6.27E-02	1.47E-03	3.40E-04	1.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
373372.10	3756294.58	2.20E-04	1.06E-03	1.65E-03	1.37E-03	1.25E-03	7.40E-04	3.20E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373372.12	3757334.94	5.00E-05	3.01E-03	1.81E-02	5.44E-02	1.01E-01	4.75E-02	1.96E-03	4.30E-04	1.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
373372.99	3757422.53	5.00E-05	3.65E-03	3.01E-02	6.00E-02	5.35E-02	2.61E-02	2.29E-03	5.60E-04	2.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373373.72	3756378.86	1.70E-04	1.09E-03	1.78E-03	1.51E-03	1.40E-03	8.20E-04	3.50E-04	1.30E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373373.86	3757510.12	5.00E-05	4.46E-03	3.63E-02	6.87E-02	8.34E-02	4.46E-02	2.42E-03	7.30E-04	2.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373374.73	3757597.71	4.00E-05	5.31E-03	2.94E-02	6.67E-02	1.47E-01	1.01E-01	2.52E-03	9.30E-04	2.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373374.83	3756432.37	1.50E-04	1.11E-03	1.87E-03	1.61E-03	1.50E-03	8.80E-04	3.60E-04	1.40E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373375.60	3757685.31	4.00E-05	6.11E-03	2.56E-02	4.12E-02	8.03E-02	5.40E-02	2.69E-03	1.13E-03	2.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373393.43	3757684.85	4.00E-05	5.99E-03	2.47E-02	3.78E-02	7.26E-02	4.75E-02	2.64E-03	1.10E-03	2.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373394.30	3757744.19	4.00E-05	6.47E-03	2.12E-02	2.72E-02	5.07E-02	3.06E-02	2.76E-03	1.21E-03	2.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
367047.63	3761097.01	0.00E+00	3.20E-04	4.20E-04	3.40E-04	2.30E-04	1.20E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370737.54	3762942.92	0.00E+00	1.10E-04	1.90E-04	1.50E-04	1.30E-04	6.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371031.93	3758057.86	1.00E-05	3.10E-03	3.95E-03	2.02E-03	1.39E-03	7.00E-04	1.26E-03	5.90E-04	1.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
371034.38	3758338.88	1.00E-05	1.80E-03	2.38E-03	1.38E-03	1.02E-03	5.30E-04	7.80E-04	3.60E-04	1.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
371091.65	3754274.94	1.00E-05	7.40E-04	9.60E-04	9.00E-04	5.10E-04	2.40E-04	2.30E-04	8.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371165.78	3758547.83	1.00E-05	1.37E-03	1.81E-03	1.46E-03	8.90E-04	4.80E-04	5.00E-04	2.30E-04	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372241.00	3757383.00	1.00E-04	1.47E-02	2.76E-02	7.94E-03	5.84E-03	3.31E-03	3.65E-03	1.96E-03	5.00E-05	3.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
372703.01	3761799.64	0.00E+00	2.10E-04	2.90E-04	1.80E-04	1.60E-04	8.00E-05	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374194.97	3754806.86	0.00E+00	3.10E-04	5.40E-04	4.70E-04	3.80E-04	2.00E-04	1.00E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374697.43	3760305.50	0.00E+00	5.00E-04	6.50E-04	3.90E-04	3.30E-04	1.80E-04	1.80E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375423.74	3758805.14	1.00E-05	1.91E-03	2.76E-03	1.60E-03	1.63E-03	8.80E-04	7.30E-04	3.30E-04	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
375433.42	3757541.59	2.00E-05	1.32E-03	2.44E-03	2.08E-03	1.68E-03	1.10E-03	5.20E-04	2.00E-04	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
378090.06	3758535.33	1.00E-05	8.90E-04	1.38E-03	9.80E-04	1.01E-03	5.80E-04	3.50E-04	1.50E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368494.88	3756671.28	3.00E-05	7.05E-03	7.28E-03	6.39E-03	2.53E-03	1.09E-03	1.63E-03	4.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370394.80	3756845.73	1.90E-04	4.84E-02	7.38E-02	1.42E-01	8.61E-02	2.87E-02	1.68E-02	4.73E-03	3.00E-05	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
368983.23	3754581.57	1.00E-05	1.08E-03	1.36E-03	1.40E-03	7.30E-04	3.40E-04	3.20E-04	1.00E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369216.41	3758422.45	1.00E-05	9.70E-04	1.33E-03	1.33E-03	8.40E-04	3.90E-04	3.10E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369552.57	3755391.67	2.00E-05	2.45E-03	3.02E-03	2.87E-03	1.25E-03	5.30E-04	6.30E-04	2.00E-04	0.00E+00	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369574.04	3758166.39	1.00E-05	1.32E-03	1.83E-03	1.29E-03	1.09E-03	5.00E-04	4.20E-04	1.60E-04	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369581.37	3758516.07	1.00E-05	9.80E-04	1.33E-03	1.17E-03	7.10E-04	3.30E-04	3.10E-04	1.30E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369830.08	3755394.84	2.00E-05	2.27E-03	2.79E-03	2.82E-03	1.46E-03	6.60E-04	7.30E-04	2.30E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370114.12	3758186.53	1.00E-05	1.26E-03	1.88E-03	1.66E-03	1.17E-03	5.50E-04	4.60E-04	1.90E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371021.69	3757820.60	2.00E-05	4.41E-03	5.60E-03	2.84E-03	1.88E-03	9.20E-04	1.61E-03	7.30E-04	3.00E-05	2.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
366809.77	3757837.27	1.00E-05	1.35E-03	1.54E-03	1.46E-03	7.20E-04	3.30E-04	3.60E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
366843.26	3757860.52	1.00E-05	1.33E-03	1.52E-03	1.44E-03	7.20E-04	3.30E-04	3.60E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
366900.00	3758500.00	0.00E+00	8.00E-04	9.60E-04	8.60E-04	4.70E-04	2.20E-04	2.30E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3762500.00	0.00E+00	1.80E-04	2.70E-04	2.20E-04	1.80E-04	9.00E-05	7.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3763500.00	0.00E+00	1.30E-04	1.90E-04	1.60E-04	1.30E-04	7.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3764500.00	0.00E+00	1.10E-04	1.50E-04	1.20E-04	9.00E-05	5.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366982.41	3757958.65	1.00E-05	1.23E-03	1.43E-03	1.36E-03	7.00E-04	3.30E-04	3.40E-04	1.10E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367163.97	3758028.80	1.00E-05	1.16E-03	1.37E-03	1.31E-03	6.90E-04	3.20E-04	3.30E-04	1.10E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_PM10_Annual.xlsx — PM10 Annual Summary by Source

Pollutant: PM10, Concentrations, Emissions Source: Brake Wear, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
367275.38	3757999.92	1.00E-05	1.20E-03	1.42E-03	1.36E-03	7.20E-04	3.40E-04	3.40E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367395.04	3758065.94	1.00E-05	1.15E-03	1.37E-03	1.29E-03	6.90E-04	3.20E-04	3.30E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367880.40	3758145.84	1.00E-05	1.37E-03	1.60E-03	1.37E-03	7.20E-04	3.40E-04	3.90E-04	1.40E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367900.00	3761500.00	0.00E+00	2.40E-04	3.50E-04	2.80E-04	2.20E-04	1.20E-04	9.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367900.00	3762500.00	0.00E+00	1.70E-04	2.50E-04	2.10E-04	1.70E-04	9.00E-05	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367900.00	3764500.00	0.00E+00	1.00E-04	1.60E-04	1.30E-04	1.00E-04	5.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368068.97	3758068.94	1.00E-05	1.55E-03	1.80E-03	1.53E-03	7.90E-04	3.70E-04	4.40E-04	1.50E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368182.48	3758015.85	1.00E-05	1.61E-03	1.89E-03	1.66E-03	8.70E-04	4.10E-04	4.60E-04	1.60E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368416.83	3757988.39	1.00E-05	1.66E-03	1.96E-03	1.76E-03	9.70E-04	4.50E-04	4.90E-04	1.70E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368577.94	3757979.23	1.00E-05	1.77E-03	2.10E-03	1.93E-03	1.07E-03	5.00E-04	5.00E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368764.68	3758079.93	1.00E-05	1.73E-03	2.07E-03	1.87E-03	1.01E-03	4.70E-04	4.70E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368900.00	3754500.00	1.00E-05	1.01E-03	1.28E-03	1.32E-03	7.00E-04	3.20E-04	3.00E-04	1.00E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368900.00	3759500.00	0.00E+00	5.40E-04	7.30E-04	5.60E-04	3.60E-04	1.80E-04	1.90E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3761500.00	0.00E+00	2.30E-04	3.40E-04	2.80E-04	2.30E-04	1.20E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3762500.00	0.00E+00	1.80E-04	2.60E-04	2.10E-04	1.60E-04	8.00E-05	6.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3763500.00	0.00E+00	1.40E-04	2.00E-04	1.70E-04	1.30E-04	7.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3764500.00	0.00E+00	1.10E-04	1.60E-04	1.40E-04	1.10E-04	6.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368944.10	3758186.12	1.00E-05	1.43E-03	1.64E-03	1.41E-03	8.00E-04	4.20E-04	4.70E-04	1.70E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369206.25	3758147.26	1.00E-05	1.43E-03	1.87E-03	1.84E-03	1.14E-03	5.30E-04	4.70E-04	1.70E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369268.49	3758066.34	1.00E-05	1.56E-03	2.04E-03	2.01E-03	1.25E-03	5.80E-04	5.10E-04	1.90E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369333.85	3757999.43	1.00E-05	1.69E-03	2.23E-03	2.23E-03	1.38E-03	6.40E-04	5.50E-04	2.10E-04	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369425.60	3758641.99	1.00E-05	8.40E-04	1.16E-03	1.03E-03	6.40E-04	3.00E-04	2.90E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369599.53	3758634.67	1.00E-05	9.50E-04	1.28E-03	1.06E-03	6.60E-04	3.20E-04	3.00E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369775.29	3758632.83	1.00E-05	1.02E-03	1.36E-03	1.07E-03	6.90E-04	3.30E-04	3.50E-04	1.40E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369834.07	3758631.02	1.00E-05	1.08E-03	1.45E-03	1.16E-03	7.30E-04	3.50E-04	3.80E-04	1.50E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369900.00	3754500.00	1.00E-05	9.00E-04	1.19E-03	1.28E-03	7.30E-04	3.40E-04	2.90E-04	9.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369900.00	3758500.00	1.00E-05	1.09E-03	1.51E-03	1.26E-03	8.40E-04	4.00E-04	3.80E-04	1.60E-04	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369900.00	3759500.00	1.00E-05	5.70E-04	7.90E-04	5.90E-04	4.70E-04	2.50E-04	2.20E-04	1.00E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369900.00	3761500.00	0.00E+00	2.10E-04	3.20E-04	2.80E-04	2.20E-04	1.10E-04	7.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3762500.00	0.00E+00	1.50E-04	2.40E-04	2.10E-04	1.70E-04	9.00E-05	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3763500.00	0.00E+00	1.30E-04	2.00E-04	1.70E-04	1.30E-04	7.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3764500.00	0.00E+00	1.00E-04	1.60E-04	1.40E-04	1.10E-04	6.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370080.52	3758227.50	1.00E-05	1.70E-03	2.33E-03	1.40E-03	9.90E-04	5.00E-04	7.20E-04	3.40E-04	1.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
370900.00	3759500.00	0.00E+00	4.50E-04	6.80E-04	5.10E-04	4.80E-04	2.50E-04	1.60E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370900.00	3760500.00	0.00E+00	2.60E-04	4.20E-04	3.10E-04	2.60E-04	1.40E-04	1.00E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370900.00	3762500.00	0.00E+00	1.30E-04	2.20E-04	1.70E-04	1.40E-04	7.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370900.00	3763500.00	0.00E+00	1.00E-04	1.70E-04	1.40E-04	1.10E-04	6.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370900.00	3764500.00	0.00E+00	8.00E-05	1.40E-04	1.10E-04	9.00E-05	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371295.29	3758036.94	1.00E-05	3.60

Pollutant: PM10, Concentrations, Emissions Source: Brake Wear, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
372541.00	3756983.00	8.00E-05	3.64E-03	7.65E-03	7.22E-03	1.08E-02	1.25E-02	1.74E-03	6.00E-04	2.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
372641.00	3756983.00	7.00E-05	3.34E-03	7.92E-03	7.55E-03	9.25E-03	1.06E-02	1.82E-03	6.20E-04	2.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
372341.00	3756983.00	4.00E-05	2.01E-03	4.96E-03	5.30E-03	5.77E-03	3.78E-03	8.60E-04	3.10E-04	1.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
373341.00	3756983.00	4.00E-05	1.88E-03	4.35E-03	4.74E-03	5.04E-03	3.50E-03	7.90E-04	2.90E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373441.00	3756983.00	4.00E-05	1.78E-03	3.86E-03	4.25E-03	4.43E-03	3.20E-03	7.50E-04	2.80E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373441.00	3757583.00	4.00E-05	4.81E-03	2.55E-02	4.29E-02	7.67E-02	5.12E-02	2.34E-03	8.30E-04	2.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373441.00	3757683.00	4.00E-05	5.67E-03	2.26E-02	3.15E-02	5.88E-02	4.07E-02	2.52E-03	1.04E-03	2.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373441.00	3757783.00	3.00E-05	6.35E-03	1.76E-02	1.75E-02	3.01E-02	1.75E-02	2.68E-03	1.20E-03	2.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373441.00	3757883.00	3.00E-05	6.79E-03	1.31E-02	8.52E-03	1.17E-02	6.13E-03	2.78E-03	1.28E-03	1.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
373441.00	3757983.00	3.00E-05	6.79E-03	1.02E-02	5.37E-03	6.53E-03	3.44E-03	2.71E-03	1.27E-03	1.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
373541.00	3756983.00	4.00E-05	1.63E-03	3.29E-03	2.31E-03	2.03E-03	2.54E-03	2.10E-04	2.26E-04	1.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
373541.00	3757083.00	4.00E-05	1.82E-03	3.88E-03	4.31E-03	4.79E-03	4.14E-03	7.10E-04	2.40E-04	1.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
373541.00	3757183.00	4.00E-05	2.07E-03	5.33E-03	6.53E-03	8.22E-03	8.32E-03	9.20E-04	2.70E-04	1.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
373541.00	3757283.00	4.00E-05	2.42E-03	7.90E-03	1.40E-02	2.33E-02	2.60E-02	1.26E-03	3.30E-04	1.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
373541.00	3757383.00	4.00E-05	2.91E-03	1.15E-02	2.07E-02	2.99E-02	2.62E-02	1.62E-03	4.30E-04	1.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
373541.00	3757483.00	4.00E-05	3.59E-03	1.74E-02	2.53E-02	3.01E-02	1.70E-02	1.93E-03	5.80E-04	1.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
373541.00	3757583.00	4.00E-05	4.34E-03	1.99E-02	2.74E-02	4.23E-02	2.51E-02	2.12E-03	7.50E-04	1.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
373541.00	3757683.00	4.00E-05	5.08E-03	1.68E-02	2.31E-02	3.02E-02	2.54E-02	2.09E-03	1.09E-03	1.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
366455.27	3763213.67	0.00E+00	1.50E-04	2.20E-04	1.90E-04	1.50E-04	8.00E-05	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366669.62	3763342.53	0.00E+00	1.40E-04	2.10E-04	1.80E-04	1.40E-04	7.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366671.31	3762769.21	0.00E+00	1.70E-04	2.50E-04	2.10E-04	1.70E-04	9.00E-05	6.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367494.53	3758314.82	1.00E-05	1.07E-03	1.27E-03	1.11E-03	5.90E-04	2.80E-04	3.10E-04	1.10E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367575.16	3764900.80	0.00E+00	1.00E-04	1.50E-04	1.20E-04	1.00E-04	5.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367638.49	3757975.16	1.00E-05	1.31E-03	1.56E-03	1.47E-03	7.80E-04	3.60E-04	3.70E-04	1.30E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367728.62	3761967.19	0.00E+00	1.20E-04	1.80E-04	1.50E-04	1.20E-04	6.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367787.59	3758292.62	1.00E-05	1.24E-03	1.44E-03	1.22E-03	6.50E-04	3.10E-04	3.60E-04	1.30E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367831.34	3763245.91	0.00E+00	1.40E-04	2.10E-04	1.70E-04	1.30E-04	7.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367900.00	3758500.00	1.00E-05	9.10E-04	1.12E-03	1.07E-03	6.40E-04	3.00E-04	2.70E-04	1.00E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367926.08	3763311.16	0.00E+00	1.40E-04	2.00E-04	1.60E-04	1.30E-04	7.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367964.98	3758232.97	1.00E-05	1.29E-03	1.52E-03	1.32E-03	7.20E-04	3.40E-04	3.80E-04	1.30E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367976.37	3763336.74	0.00E+00	1.40E-04	2.00E-04	1.60E-04	1.30E-04	7.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367978.91	3758390.10	1.00E-05	1.03E-03	1.25E-03	1.18E-03	6.90E-04	3.30E-04	3.10E-04	1.10E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368188.78	3758591.47	1.00E-05	9.70E-04	1.20E-03	1.11E-03	6.10E-04	2.80E-04	2.80E-04	1.00E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368501.11	3761632.38	0.00E+00	2.10E-04	3.20E-04	2.70E-04	2.20E-04	1.20E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368505.49	3758571.22	1.00E-05	1.06E-03	1.28E-03	1.13E-03	6.30E-04	2.90E-04	3.10E-04	1.00E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368673.29	3761677.69	0.00E+00	2.10E-04	3.20E-04	2.60E-04	2.20E-04	1.10E-04	7.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368693.42	3758559.47	1.00E-05	1.32E-03	1.61E-03	1.45E-03	8.00E-04	3.70E-04	3.80E-04	1.40E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368842.92	3761590.39	0.00E+00	1.40E-04	2.00E-04	1.60E-04	1.30E-04	7.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368869.11	3754097.89	1.00E-05	8.00E-04	1.01E-03	9.90E-04	5.30E-04	2.50E-04	2.20E-04	7.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368869.83	3765067.00	0.00E+00	1.00E-04	1.40E-04	1.20E-04	9.00E-05	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368969.99	3761647.20	0.00E+00	2.20E-04	3.30E-04	2.70E-04	2.10E-04	1.10E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368970.54	3754677.64	1.00E-05	1.15E-03	1.46E-03	1.51E-03	7.80E-04	3.60E-04	3.50E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369007.11	3762513.11	0.00E+00	1.80E-04	2.60E-04	2.10E-04	1.60E-04	8.00E-05	6.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369227.99	3762251.91	0.00E+00	1.90E-04	2.80E-04	2.20E-04	1.70E-04	9.00E-05	7.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369242.37	3754095.62	1.00E-05	1.27E-03	1.55E-03	1.53E-03	7.90E-04	3.60E-04	3.50E-04	1.10E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369456.98	3762567.48	0.00E+00	1.60E-04	2.50E-04	2.10E-04	1.60E-04	8.00E-05	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369504.00	3754702.08	1.00E-05	1.34E-03	1.62E-03	1.57E-03	8.40E-04	4.00E-04	3.80E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369767.91	3767150.98	0.00E+00	2.40E-04	3.70E-04	3.20E-04	2.50E-04	1.30E-04	9.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369809.34	3764567.65	0.00E+00	1.00E-04	1.50E-04	1.20E-04	9.00E-05	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369845.18	3754154.97	1.00E-05	7.00E-04	9.30E-04	1.00E-03	5.60E-04	2.60E-04	2.40E-04	7.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369848.41	3753976.49	1.00E-05	6.60E-04	8.80E-04	9.30E-04	5.20E-04	2.40E-04	2.10E-04	6.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370097.88	3760014.21	0.00E+00	3.70E-04	5.70E-04	4.60E-04	4.00E-04	2.10E-04	1.40E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370150.95	3754699.75	1.00E-05	9.00E-04	1.26E-03	1.38E-03	7.90E-04	3.60E-04	2.70E-04	9.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370192.96	3758860.70	1.00E-05	8.40E-04	1.20E-03	8.70E-04	6.60E-04	3.30E-04	3.70E-04	1.70E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370243.17	3759622.98	0.00E+00	4.20E-04	6.70E-04	5.10E-04	4.50E-04	2.40E-04	1.60E-04	7.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370246.20	3754243.12	1.00E-05	6.70E-04	9.50E-04	9.80E-04	5.50E-04	2.50E-04	2.00E-04	7.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370290.74	3759464.60	0.00E+00	4.70E-04	7.30E-04	5.50E-04	4.70E-04	2.50E-04	1.80E-04	8.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370608.78	3762239.97	0.00E+00	7.40E-04	2.30E-04	1.90E-04	1.60E-04	8.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370614.80	3762181.53	0.00E+00	1.40E-04	2.40E-04	1.90E-04	1.60E-04	8.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370625.96	3763759.08	0.00E+00	1.00E-04	1.60E-04	1.30E-04	1.10E-04	5.00E-05	3.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370723.56	3763867.78	0.00E+00	9.00E-05	1.60E-04	1.30E-04	1.00E-04	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370968.58	3759443.63	0.00E+00	4.60E-04	6.90E-04	5.20E-04	5.00E-04	2.60E-04	1.70E-04	8.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371139.14	3758179.30	1.00E-05	2.50E-03	3.19E-03	1.75E-03	1.24E-03	6.40E-04	1.15E-03	5.40E-04	1.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
371516.05	3762577.75	0.00E+00	1.40E-04	2.20E-04	1.70E-04	1.40E-04	7.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371721.40	3759371.61	0.00E+00	6.80E-04	1.00E-03	6.60E-04	8.50E-04	2.80E-04	2.40E-04	1.10E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371973.81	3758892.65	1.00E-05	1.21E-03	1.65E-03	1.02E-03	8.50E-04	4.50E-04	4.50E-04	2.10E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
372687.72	3759513.01	0.00E+00	7.40E-04	1.04E-03	6.30E-04	5.10E-04	2.70E-04	2.70E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
372943.49	3761051.66	0.00E+00	2.90E-04	4.20E-04	2.70E-04	2.30E-04	1.20E-04	1.00E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373546.52	3760907.48	0.00E+00	3.20E-04	4.50E-04	3.00E-04	2.60E-04	1.40E-04	1.20E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373736.60	3756503.93	7.00E-05	9.40E-04	1.60E-03	1.48E-03	1.34E-03	7.90E-04	3.00E-04	1.10E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Brake Wear, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
373758.20	3758043.23	2.00E-05	5.21E-03	8.64E-03	5.02E-03	6.26E-03	3.35E-03	2.10E-03	9.60E-04	1.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
373781.58	3755802.14	2.00E-05	5.40E-04	9.50E-04	9.30E-04	7.00E-04	3.90E-04	1.90E-04	7.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373814.20	3756040.57	5.00E-05	6.40E-04	1.06E-03	1.00E-03	1.30E-03	8.20E-04	4.70E-04	2.10E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373990.06	3753826.14	0.00E+00	3.10E-04	4.80E-04	4.00E-04	2.70E-04	1.40E-04	1.00E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374057.73	3758196.53	2.00E-05	4.09E-03	6.35E-03	3.58E-03	4.18E-03	2.25E-03	1.63E-03	7.50E-04	1.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
374270.95	3758673.42	1.00E-05	2.50E-03	3.20E-03	1.62E-03	1.58E-03	8.50E-04	9.70E-04	4.40E-04	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
374561.05	3757642.94	3.00E-05	2.25E-03	5.15E-03	4.81E-03	6.13E-03	3.72E-03	9.60E-04	3.60E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
374688.84	3758984.90	1.00E-05	1.73E-03	2.22E-03	1.18E-03	1.12E-03	6.00E-04	6.70E-04	3.00E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374693.96	3758983.17	1.00E-05	1.74E-03	2.23E-03	1.19E-03	1.12E-03	6.00E-04	6.70E-04	3.00E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374717.46	3762574.39	0.00E+00	9.00E-05	1.30E-04	1.00E-04	9.00E-05	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375503.80	3764537.77	0.00E+00	1.60E-04	1.60E-04	1.10E-04	9.00E-05	5.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375614.97	3760555.10	0.00E+00	4.20E-04	6.00E-04	3.70E-04	3.20E-04	1.70E-04	1.60E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375718.04	3758204.95	2.00E-05	1.82E-03	3.21E-03	2.35E-03	2.74E-03	1.57E-03	7.40E-04	3.10E-04	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
375902.79	3764940.52	0.00E+00	9.00E-05	1.40E-04	1.00E-04	9.00E-05	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375908.38	3763938.71	0.00E+00	1.00E-04	1.70E-04	1.20E-04	1.10E-04	6.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375920.60	3762083.39	0.00E+00	1.70E-04	2.30E-04	1.60E-04	1.10E-04	6.00E-05	7.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376709.15	3756388.48	1.00E-05	3.40E-04	5.00E-04	4.30E-04	2.90E-04	1.60E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376814.39	3754856.27	0.00E+00	1.60E-04	2.40E-04	2.10E-04	1.50E-04	9.00E-05	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377050.15	3761774.29	0.00E+00	2.60E-04	3.80E-04	2.40E-04	2.20E-04	1.20E-04	1.00E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377052.34	3761911.90	0.00E+00	2.50E-04	3.50E-04	2.20E-04	2.00E-04	1.10E-04	9.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377227.14	3756422.42	1.00E-05	3.20E-04	4.60E-04	4.00E-04	2.70E-04	1.40E-04	1.00E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377237.88	3763993.21	0.00E+00	1.40E-04	1.80E-04	1.20E-04	9.00E-05	5.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377313.01	3756265.13	0.00E+00	2.70E-04	3.90E-04	3.40E-04	2.30E-04	1.20E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377330.56	3760754.60	0.00E+00	5.00E-04	6.50E-04	3.90E-04	3.40E-04	1.80E-04	1.90E-04	8.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377342.37	3760427.27	0.00E+00	4.60E-04	6.20E-04	3.60E-04	3.20E-04	1.70E-04	1.80E-04	7.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377388.19	3762578.39	0.00E+00	1.90E-04	2.80E-04	1.70E-04	1.60E-04	9.00E-05	7.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377563.47	3760340.44	0.00E+00	6.30E-04	8.70E-04	5.10E-04	4.70E-04	2.50E-04	2.40E-04	1.10E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377753.42	3759272.76	1.00E-05	9.90E-04	1.49E-03	9.70E-04	9.60E-04	5.30E-04	3.90E-04	1.70E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377839.66	3764649.02	0.00E+00	1.20E-04	1.60E-04	1.10E-04	8.00E-05	4.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377841.65	3762246.94	0.00E+00	2.30E-04	3.30E-04	2.20E-04	1.90E-04	1.10E-04	9.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377908.39	3762502.03	0.00E+00	2.30E-04	3.30E-04	2.20E-04	1.80E-04	1.00E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377916.00	3755241.12	0.00E+00	1.50E-04	2.30E-04	2.00E-04	1.40E-04	7.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377924.86	3763642.88	0.00E+00	1.40E-04	2.10E-04	1.30E-04	1.20E-04	6.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377967.05	3762224.48	0.00E+00	2.40E-04	3.30E-04	2.20E-04	2.00E-04	1.10E-04	9.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378003.52	3753139.05	0.00E+00	1.10E-04	1.70E-04	1.40E-04	1.10E-04	6.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378022.11	3753897.25	0.00E+00	1.90E-04	2.70E-04	2.30E-04	1.50E-04	8.00E-05	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378066.59	3761432.90	0.00E+00	3.60E-04	4.80E-04	2.90E-04	2.50E-04	1.40E-04	1.40E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378209.66	3764122.39	0.00E+00	1.30E-04	1.90E-04	1.20E-04	1.10E-04	6.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378212.33

Pollutant: PM10, Concentrations, Emissions Source: Brake Wear, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
378900.00	3761500.00	0.00E+00	3.70E-04	5.00E-04	3.00E-04	2.70E-04	1.50E-04	1.40E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379900.00	3753500.00	0.00E+00	8.00E-05	1.30E-04	1.10E-04	8.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379900.00	3758500.00	1.00E-05	5.90E-04	9.20E-04	6.70E-04	6.60E-04	3.80E-04	2.30E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
380900.00	3764500.00	0.00E+00	1.30E-04	1.80E-04	1.20E-04	1.10E-04	6.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3753500.00	0.00E+00	6.00E-05	9.00E-05	8.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3758500.00	1.00E-05	4.00E-04	6.00E-04	4.50E-04	4.20E-04	2.40E-04	1.50E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3758500.00	0.00E+00	2.90E-04	4.30E-04	3.20E-04	2.90E-04	1.60E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3759500.00	0.00E+00	3.80E-04	5.40E-04	3.80E-04	3.70E-04	2.10E-04	1.50E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3760500.00	0.00E+00	3.90E-04	5.60E-04	3.90E-04	3.70E-04	2.10E-04	1.50E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3761500.00	0.00E+00	3.70E-04	5.20E-04	3.50E-04	3.20E-04	1.80E-04	1.40E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368085.00	3755395.00	1.00E-05	2.76E-03	2.95E-03	2.24E-03	1.16E-03	5.20E-04	7.20E-04	2.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368185.00	3755395.00	2.00E-05	2.92E-03	3.14E-03	2.83E-03	1.25E-03	5.60E-04	7.80E-04	2.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368285.00	3755395.00	2.00E-05	2.99E-03	3.20E-03	2.91E-03	1.28E-03	5.70E-04	8.20E-04	2.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368385.00	3755395.00	2.00E-05	3.06E-03	3.28E-03	3.02E-03	1.33E-03	5.90E-04	8.60E-04	2.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368485.00	3755395.00	2.00E-05	3.09E-03	3.34E-03	3.10E-03	1.37E-03	6.00E-04	8.90E-04	2.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368585.00	3755395.00	2.00E-05	3.12E-03	3.38E-03	3.19E-03	1.40E-03	6.10E-04	9.10E-04	2.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368685.00	3755395.00	2.00E-05	3.13E-03	3.42E-03	3.26E-03	1.44E-03	6.20E-04	9.30E-04	2.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368785.00	3755395.00	2.00E-05	3.07E-03	3.35E-03	3.24E-03	1.42E-03	6.20E-04	9.40E-04	3.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368885.00	3755395.00	2.00E-05	2.97E-03	3.31E-03	3.27E-03	1.47E-03	6.30E-04	9.30E-04	2.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368985.00	3755395.00	2.00E-05	2.79E-03	3.17E-03	3.21E-03	1.47E-03	6.30E-04	9.10E-04	2.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369085.00	3755395.00	2.00E-05	2.58E-03	2.99E-03	3.11E-03	1.45E-03	6.20E-04	8.70E-04	2.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369185.00	3755395.00	2.00E-05	2.39E-03	2.83E-03	3.00E-03	1.42E-03	6.00E-04	8.20E-04	2.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369285.00	3755395.00	2.00E-05	2.29E-03	2.76E-03	2.92E-03	1.37E-03	5.80E-04	7.50E-04	2.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369385.00	3755395.00	2.00E-05	2.30E-03	2.80E-03	2.87E-03	1.31E-03	5.50E-04	6.70E-04	2.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369485.00	3755395.00	2.00E-05	2.40E-03	2.97E-03	2.87E-03	1.25E-03	5.20E-04	6.20E-04	2.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369585.00	3755395.00	2.00E-05	2.51E-03	3.06E-03	2.91E-03	1.29E-03	5.50E-04	6.60E-04	2.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369685.00	3755395.00	2.00E-05	2.50E-03	3.02E-03	2.92E-03	1.37E-03	6.10E-04	7.20E-04	2.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369785.00	3755395.00	2.00E-05	2.36E-03	2.89E-03	2.87E-03	1.44E-03	6.50E-04	7.30E-04	2.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369885.00	3755395.00	1.00E-05	2.12E-03	2.66E-03	2.77E-03	1.48E-03	6.80E-04	7.10E-04	2.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369985.00	3755395.00	1.00E-05	1.89E-03	2.45E-03	2.65E-03	1.49E-03	6.80E-04	6.50E-04	2.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370085.00	3755395.00	1.00E-05	1.75E-03	2.34E-03	2.57E-03	1.51E-03	6.70E-04	5.80E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370185.00	3755395.00	1.00E-05	1.75E-03	2.34E-03	2.56E-03	1.43E-03	6.40E-04	5.20E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370285.00	3755395.00	1.00E-05	1.82E-03	2.42E-03	2.57E-03	1.39E-03	6.20E-04	5.00E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370377.81	3755313.33	1.00E-05	1.69E-03	2.26E-03	2.36E-03	1.25E-03	5.60E-04	4.60E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370477.81	3755313.33	1.00E-05	1.67E-03	2.26E-03	2.33E-03	1.23E-03	5.60E-04	4.80E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370577.81	3755313.33	1.00E-05	1.60E-03	2.19E-03	2.25E-03	1.22E-03	5.60E-04	4.80E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370677.81	3755313.33	1.00E-05	1.54E-03	2.08E-03	2.11E-03	1.17E-03	5.50E-04	4.60E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370777.81	3755313.33	1.00E-05	1.75E-03	2.07E-03	2.03E-03	1.13E-03	5.40E-04	4.50E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370877.81	3755313.33	1.00E-05	1.51E-03	2.04E-03	1.98E-03	1.13E-03	5.20E-04	4.80E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370977.81	3755313.33	1.00E-05	1.40E-03	1.96E-03	1.96E-03	1.13E-03	5.20E-04	4.70E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371077.81	3755313.33	1.00E-05	1.30E-03	1.85E-03	1.89E-03	1.11E-03	5.00E-04	4.40E-04	1.60E-04	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371177.81	3755313.33	1.00E-05	1.22E-03	1.77E-03	1.82E-03	1.07E-03	4.90E-04	4.10E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371277.81	3755313.33	1.00E-05	1.17E-03	1.70E-03	1.74E-03	1.02E-03	4.70E-04	3.80E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371377.81	3755313.33	1.00E-05	1.15E-03	1.65E-03	1.67E-03	9.60E-04	4.40E-04	3.60E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371477.81	3755313.33	1.00E-05	1.15E-03	1.61E-03	1.61E-03	9.10E-04	4.10E-04	3.50E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371577.81	3755313.33	1.00E-05	1.10E-03	1.58E-03	1.54E-03	8.70E-04	3.90E-04	3.30E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371677.81	3755313.33	1.00E-05	1.07E-03	1.55E-03	1.47E-03	8.30E-04	3.80E-04	3.30E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371777.81	3755313.33	1.00E-05	1.04E-03	1.51E-03	1.40E-03	8.00E-04	3.70E-04	3.20E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371871.62	3755232.57	1.00E-05	9.50E-04	1.41E-03	1.28E-03	7.40E-04	3.50E-04	2.90E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371971.62	3755232.57	1.00E-05	9.10E-04	1.36E-03	1.23E-03	7.30E-04	3.60E-04	2.80E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372071.62	3755232.57	1.00E-05	8.60E-04	1.31E-03	1.18E-03	7.20E-04	3.60E-04	2.70E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372171.62	3755232.57	1.00E-05	8.20E-04	1.27E-03	1.16E-03	7.40E-04	3.70E-04	2.60E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372271.62	3755232.57	1.00E-05	7.80E-04	1.23E-03	1.14E-03	7.50E-04	3.80E-04	2.40E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372371.62	3755232.57	1.00E-05	7.50E-04	1.19E-03	1.12E-03	7.40E-04	3.80E-04	2.40E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372471.62	3755232.57	1.00E-05	7.20E-04	1.16E-03	1.11E-03	7.30E-04	3.80E-04	2.30E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372571.62	3755232.57	1.00E-05	6.90E-04	1.13E-03	1.09E-03	7.10E-04	3.70E-04	2.30E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372671.62	3755232.57	1.00E-05	6.60E-04	1.09E-03	1.09E-03	6.90E-04	3.60E-04	2.30E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372771.62	3755232.57	1.00E-05	6.30E-04	1.05E-03	1.10E-03	6.60E-04	3.50E-04	2.20E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372871.62	3755232.57	1.00E-05	6.00E-04	1.00E-03	1.12E-03	6.30E-04	3.30E-04	2.10E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372971.62	3755232.57	1.00E-05	5.80E-04	9.60E-04	1.06E-03	6.00E-04	3.20E-04	2.00E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Pollutant: PM10, Concentrations, Emissions Source: Diesel Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
369131.40	3758945.42	1.50E-04	2.81E-03	4.80E-03	4.65E-03	2.36E-03	8.90E-04	4.90E-04	1.10E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
370190.78	3758848.26	1.20E-04	3.33E-03	5.54E-03	4.54E-03	2.69E-03	1.11E-03	5.70E-04	1.90E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
370747.03	3763937.58	2.00E-05	4.10E-04	8.20E-04	7.10E-04	4.40E-04	1.90E-04	6.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370757.72	3755124.52	3.80E-04	5.23E-03	9.58E-03	1.00E-02	4.63E-03	1.68E-03	1.08E-03	1.70E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
370946.70	3758260.69	2.50E-04	7.89E-03	1.24E-02	8.71E-03	4.81E-03	2.06E-03	1.34E-03	4.80E-04	1.00E-04	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
371368.79	3754218.82	1.80E-04	2.69E-03	4.95E-03	5.04E-03	2.42E-03	8.70E-04	5.20E-04	9.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371786.04	3754168.42	1.50E-04	2.34E-03	4.57E-03	4.65E-03	2.32E-03	8.60E-04	4.30E-04	8.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373756.25	3761779.11	4.00E-05	7.60E-04	1.28E-03	9.60E-04	5.90E-04	2.80E-04	1.20E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367734.03	3758536.57	2.20E-04	3.50E-03	5.95E-03	6.11E-03	2.98E-03	1.09E-03	6.80E-04	1.20E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
368069.11	3760165.13	9.00E-05	1.65E-03	2.87E-03	2.72E-03	1.46E-03	5.80E-04	2.90E-04	7.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369125.38	3763500.65	2.00E-05	5.80E-04	1.13E-03	1.02E-03	6.13E-04	2.70E-04	1.90E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369225.45	3764227.42	2.00E-05	4.40E-04	8.70E-04	7.90E-04	4.70E-04	2.10E-04	7.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370236.75	3761140.30	4.00E-05	9.00E-04	1.85E-03	1.67E-03	1.04E-03	4.50E-04	1.40E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
372218.41	3759157.53	1.40E-04	3.72E-03	6.38E-03	4.57E-03	2.82E-03	1.29E-03	6.00E-04	2.10E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
372267.44	3762986.25	2.00E-05	3.80E-04	6.50E-04	5.00E-04	3.30E-04	1.50E-04	7.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374498.14	3758643.27	3.00E-04	8.51E-03	1.51E-02	1.01E-02	7.32E-03	3.59E-03	1.42E-03	5.00E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
375472.61	3759680.03	1.40E-04	3.46E-03	5.64E-03	3.98E-03	2.59E-03	1.23E-03	5.80E-04	1.90E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
375514.38	3757500.61	3.80E-04	5.81E-03	1.15E-02	1.02E-02	6.13E-03	2.70E-03	1.90E-03	3.00E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
377395.41	3759189.37	1.70E-04	3.77E-03	6.99E-03	5.42E-03	3.76E-03	1.84E-03	6.40E-04	2.10E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
366363.62	3757753.10	3.10E-04	4.55E-03	7.45E-03	7.87E-03	3.37E-03	1.15E-03	9.20E-04	1.30E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369385.71	3758351.85	2.50E-04	4.40E-03	7.80E-03	8.12E-03	4.28E-03	1.54E-03	7.80E-04	1.70E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
369388.19	3758584.61	2.00E-04	3.61E-03	6.33E-03	6.31E-03	3.22E-03	1.18E-03	6.30E-04	1.40E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
371727.30	3758286.14	3.20E-04	1.06E-02	1.68E-02	1.06E-02	6.19E-03	2.76E-03	1.68E-03	6.60E-04	9.00E-05	2.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
371973.18	3757657.97	9.70E-04	2.06E-01	1.93E-01	3.29E-02	1.53E-02	2.11E-02	7.37E-02	4.87E-02	4.20E-04	8.00E-05	4.20E-04	0.00E+00	0.00E+00	0.00E+00
372028.99	3757658.28	9.80E-04	2.06E-01	1.93E-01	3.29E-02	1.53E-02	2.11E-02	7.37E-02	4.86E-02	4.20E-04	8.00E-05	4.20E-04	0.00E+00	0.00E+00	0.00E+00
372057.72	3757303.44	2.40E-03	6.02E-02	7.92E-02	4.65E-02	2.26E-02	8.96E-03	6.36E-03	7.89E-03	5.30E-04	1.00E-04	5.30E-04	0.00E+00	0.00E+00	0.00E+00
372058.94	3757365.68	2.03E-03	1.19E-01	1.20E-01	4.36E-02	2.14E-02	8.90E-03	7.96E-03	8.88E-03	5.40E-04	1.00E-04	5.40E-04	0.00E+00	0.00E+00	0.00E+00
372114.76	3757419.38	1.74E-03	1.55E-01	1.99E-01	4.15E-02	2.06E-02	9.48E-03	1.07E-02	8.21E-03	4.90E-04	9.00E-05	4.90E-04	0.00E+00	0.00E+00	0.00E+00
372149.51	3757302.81	2.27E-03	5.21E-02	7.95E-02	4.55E-02	2.28E-02	9.32E-03	5.40E-03	4.65E-03	4.70E-04	9.00E-05	4.70E-04	0.00E+00	0.00E+00	0.00E+00
366675.72	3757743.67	3.40E-04	5.04E-03	8.26E-03	8.75E-03	3.76E-03	1.29E-03	1.01E-03	1.40E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
367105.41	3757963.83	3.20E-04	4.84E-03	8.77E-03	8.49E-03	3.79E-03	1.32E-03	9.50E-04	1.40E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
367221.30	3757911.68	3.40E-04	5.15E-03	8.53E-03	9.05E-03	4.03E-03	1.40E-03	1.01E-03	1.50E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
367346.43	3757955.57	3.30E-04	5.11E-03	8.49E-03	8.99E-03	4.03E-03	1.40E-03	9.90E-04	1.50E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
367457.41	3758010.28	3.20E-04	5.00E-03	8.33E-03	8.79E-03	3.97E-03	1.38E-03	9.70E-04	1.50E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
367730.93	3758222.91	2.80E-04	4.52E-03	7.62E-03	7.67E-03	3.50E-03	1.26E-03	8.70E-04	1.40E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
367995.30	3758074.68	3.30E-04	5.38E-03	9.06E-03	9.09E-03	4.10E-03	1.47E-03	1.03E-03	1.70E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369154.15	3758166.98	3.30E-04	5.71E-03	9.90E-03	1.04E-02	5.34E-03	1.92E-03	1.10E-03	2.00E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
369274.54	3758209.64	3.20E-04	5.44E-03	9.59E-03	1.01E-02	5.30E-03	1.90E-03	1.01E-03	1.90E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
369279.67	3758015.34	3.70E-04	6.75E-03	1.17E-02	1.23E-02	6.38E-03	2.28E-03	1.29E-03	2.40E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
369788.09	3758340.35	2.50E-04	4.94E-03	8.88E-03	8.73E-03	4.68E-03	1.73E-03	8.30E-04	1.90E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
369790.55	3758580.31	2.00E-04	4.12E-03	7.01E-03	6.36E-03	3.33E-03	1.29E-03	7.00E-04	1.70E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
371537.21	3756959.02	2.87E-02	1.09E-01	6.92E-02	9.43E-02	5.28E-02	1.45E-02	5.39E-03	1.35E-03	9.60E-04	1.80E-04	9.60E-04	0.00E+00	0.00E+00	0.00E+00
371736.26	3757371.88	1.90E-03	1.94E-01	1.92E-01	5.23E-02	2.12E-02	1.00E-02	1.88E-02	8.47E-03	8.90E-04	1.70E-04	8.90E-04	0.00E+00	0.00E+00	0.00E+00
371795.72	3757393.54	1.81E-03	3.35E-01	2.92E-01	4.91E-02	2.05E-02	1.06E-02	2.15E-02	1.08E-02	7.90E-04	1.50E-04	7.90E-04	0.00E+00	0.00E+00	0.00E+00
371925.67	3757658.96	3.60E-04	1.37E-03	1.48E-02	1.23E-02	8.50E-03	4.73E-02	4.40E-04	8.00E-05	4.40E-04	0.00E+00	4.40E-04	0.00E+00	0.00E+00	0.00E+00
367720.95	3757929.47	3.70E-04	5.69E-03	9.48E-03	1.00E-02	4.53E-03	1.58E-03	1.10E-03	1.60E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
366410.42	3757645.39	3.30E-04	4.84E-03	7.90E-03	8.34E-03	3.54E-03	1.20E-03	9.80E-04	1.30E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
366412.06	3757743.84	3.20E-04	4.65E-03	7.61E-03	8.05E-03	3.44E-03	1.17E-03	9.40E-04	1.30E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
366449.10	3757556

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Diesel Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
370966.07	3757852.69	4.90E-04	1.58E-02	2.34E-02	1.56E-02	8.16E-03	3.32E-03	2.50E-03	7.80E-04	2.50E-04	5.00E-05	2.50E-04	0.00E+00	0.00E+00	0.00E+00
370968.09	3757808.70	5.40E-04	1.69E-02	2.51E-02	1.68E-02	8.71E-03	3.52E-03	2.73E-03	8.30E-04	2.90E-04	6.00E-05	2.90E-04	0.00E+00	0.00E+00	0.00E+00
370983.75	3757705.22	5.10E-04	7.63E-03	1.53E-02	1.68E-02	8.13E-03	2.76E-03	1.47E-03	2.40E-04	8.00E-05	2.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
370986.42	3757628.02	4.80E-04	7.14E-03	1.42E-02	1.55E-02	7.55E-03	2.59E-03	1.39E-03	2.30E-04	7.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
370989.10	3757550.81	4.50E-04	6.71E-03	1.32E-02	1.43E-02	7.02E-03	2.43E-03	1.32E-03	2.20E-04	7.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
370991.77	3757473.61	4.30E-04	6.33E-03	1.23E-02	1.33E-02	6.53E-03	2.28E-03	1.25E-03	2.10E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
371017.44	3757371.98	1.71E-03	4.81E-02	5.94E-02	4.73E-02	2.36E-02	8.38E-03	3.72E-02	1.30E-03	8.92E-03	1.72E-03	8.92E-03	0.00E+00	0.00E+00	0.00E+00
371039.92	3757778.95	5.90E-04	1.97E-02	2.81E-02	1.80E-02	9.32E-03	3.79E-03	3.19E-03	9.80E-04	3.20E-04	6.00E-05	3.20E-04	0.00E+00	0.00E+00	0.00E+00
371061.56	3756965.39	6.46E-03	8.34E-02	1.88E-01	2.55E-01	8.66E-02	1.30E-02	9.26E-03	1.50E-03	8.80E-03	1.70E-03	8.80E-03	0.00E+00	0.00E+00	0.00E+00
371064.57	3757405.04	4.00E-04	5.85E-03	1.13E-02	1.22E-02	5.98E-03	2.10E-03	1.14E-03	2.00E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
371078.64	3757842.57	5.20E-04	1.87E-02	2.67E-02	1.68E-02	8.68E-03	3.56E-03	2.96E-03	9.10E-04	2.60E-04	5.00E-05	2.60E-04	0.00E+00	0.00E+00	0.00E+00
371116.65	3757378.24	1.66E-03	4.89E-02	7.11E-02	4.71E-02	2.35E-02	8.30E-03	2.51E-02	1.55E-03	5.80E-03	1.12E-03	5.80E-03	0.00E+00	0.00E+00	0.00E+00
371117.35	3757906.19	4.70E-04	1.75E-02	2.42E-02	1.49E-02	7.90E-03	3.33E-03	2.79E-03	9.60E-04	2.20E-04	4.00E-05	2.20E-04	0.00E+00	0.00E+00	0.00E+00
371160.25	3755403.96	3.80E-04	5.61E-03	1.09E-02	1.17E-02	5.75E-03	2.02E-03	1.06E-03	1.90E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
371160.00	3756963.88	1.23E-02	8.16E-02	1.60E-01	3.04E-01	1.25E-01	1.12E-02	8.12E-03	1.44E-03	4.09E-03	7.90E-04	4.09E-03	0.00E+00	0.00E+00	0.00E+00
371173.76	3757954.26	4.50E-04	1.68E-02	2.30E-02	1.40E-02	7.52E-03	3.23E-03	2.78E-03	9.90E-04	1.90E-04	4.00E-05	1.90E-04	0.00E+00	0.00E+00	0.00E+00
371174.47	3757986.09	4.20E-04	1.55E-02	2.16E-02	1.34E-02	7.21E-03	3.11E-03	2.62E-03	9.40E-04	1.80E-04	3.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
371208.04	3757297.08	2.09E-03	5.91E-02	7.27E-02	5.86E-02	2.93E-02	9.17E-03	1.55E-02	1.80E-03	3.93E-03	7.90E-04	3.93E-03	0.00E+00	0.00E+00	0.00E+00
371268.86	3757379.92	1.65E-03	6.11E-02	8.54E-02	4.73E-02	2.33E-02	8.32E-03	1.73E-02	1.88E-03	3.34E-03	6.50E-04	3.34E-03	0.00E+00	0.00E+00	0.00E+00
371210.97	3757210.00	2.81E-03	5.78E-02	8.10E-02	7.67E-02	3.56E-02	1.02E-02	9.61E-03	1.73E-03	4.34E-03	8.40E-04	4.34E-03	0.00E+00	0.00E+00	0.00E+00
371243.87	3757985.25	4.40E-04	1.64E-02	2.25E-02	1.36E-02	7.36E-03	3.22E-03	2.85E-03	1.05E-03	1.70E-04	3.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
371255.94	3754502.89	3.70E-04	5.40E-03	1.05E-02	1.12E-02	5.49E-03	1.94E-03	1.00E-03	1.90E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
371258.45	3756962.36	2.99E-02	1.22E-01	1.54E-01	3.78E-01	1.72E-01	9.91E-03	7.13E-03	1.36E-03	2.49E-03	4.80E-04	2.49E-03	0.00E+00	0.00E+00	0.00E+00
371275.69	3757208.66	2.83E-03	5.76E-02	8.21E-02	7.52E-02	3.44E-02	9.83E-03	9.24E-03	1.88E-03	3.23E-03	6.20E-04	3.23E-03	0.00E+00	0.00E+00	0.00E+00
371313.27	3757984.47	4.60E-04	1.72E-02	2.35E-02	1.42E-02	7.69E-03	3.33E-03	2.88E-03	1.16E-03	1.90E-04	3.00E-05	1.90E-04	0.00E+00	0.00E+00	0.00E+00
371348.54	3758024.62	4.30E-04	1.56E-02	2.16E-02	1.33E-02	7.21E-03	3.20E-03	2.84E-03	1.09E-03	1.50E-04	3.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
371351.62	3755401.81	3.60E-04	5.20E-03	1.02E-02	1.08E-02	5.22E-03	1.85E-03	9.40E-04	1.80E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
371356.75	3757207.46	2.91E-03	6.64E-02	8.77E-02	7.34E-02	3.30E-02	9.47E-03	8.91E-03	2.09E-03	2.37E-03	4.60E-04	2.37E-03	0.00E+00	0.00E+00	0.00E+00
371356.89	3756960.85	6.43E-02	2.14E-01	1.19E-01	2.62E-01	1.22E-01	9.98E-03	6.35E-03	1.32E-03	3.68E-03	7.12E-04	3.68E-03	0.00E+00	0.00E+00	0.00E+00
371402.37	3758061.24	4.10E-04	1.45E-02	2.06E-02	1.28E-02	6.99E-03	3.10E-03	2.61E-03	1.01E-03	1.40E-04	3.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
371437.81	3757206.27	3.86E-03	8.43E-02	9.47E-02	7.49E-02	3.49E-02	9.22E-03	8.65E-03	2.29E-03	1.83E-03	3.50E-04	1.83E-03	0.00E+00	0.00E+00	0.00E+00
371447.31	3755400.73	3.50E-04	5.02E-03	9.85E-03	1.03E-02	4.96E-03	1.77E-03	9.00E-04	1.80E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
371455.33	3756959.34	5.70E-02	1.90E-01	8.22E-02	1.29E-01	6.53E-02	1.32E-02	5.75E-03	1.31E-03	1.21E-03	2.30E-04	1.21E-03	0.00E+00	0.00E+00	0.00E+00
371474.09	3758110.88	3.90E-04	1.35E-02	1.96E-02	1.22E-02	6.74E-03	2.98E-03	2.28E-03	8.90E-04	1.30E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
371518.87	3757205.07	3.32E-03	7.09E-02	8.51E-02	7.93E-02	3.71E-02	9.06E-03	8.41E-03	2.49E-03	1.46E-03	2.80E-04	1.46E-03	0.00E+00	0.00E+00	0.00E+00
371537.39	3758154.69	3.70E-04	1.27E-02	1.89E-02	1.18E-02	6.55E-03	2.89E-03	2.03E-03	8.00E-04	1.20E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
371542.99	3755399.65	3.50E-04	4.84E-03	9.50E-03	9.80E-03	4.71E-03	1.70E-03	8.50E-04	1.70E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
371599.93	3757203.87	3.36E-03	6.83E-02	8.20E-02	7.49E-02	3.51E-02	8.98E-03	8.17E-03	2.37E-03	1.20E-03	2.30E-04	1.20E-03	0.00E+00	0.00E+00	0.00E+00
371600.70	3758198.51	3.50E-04	1.20E-02	1.82E-02	1.13E-02	6.33E-03	2.77E-03	1.86E-03	7.30E-04	1.10E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
371613.52	3756957.47	1.69E-02	7.44E-02	6.14E-02	7.62E-02	4.63E-02	1.49E-02	5.10E-03	1.38E-03	7.80E-04	1.50E-04	7.80E-04	0.00E+00	0.00E+00	0.00E+00
371638.58	3759398.58	3.40E-04	4.66E-03	9.16E-03	9.32E-03	4.48E-03	1.63E-03	8.10E-04	1.70E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
371652.22	3756956.31	1.35E-02	6.40E-02	5.83E-02	6.96E-02	4.38E-02	1.48E-02	4.95E-03	1.40E-03	7.10E-04	1.40E-04	7.10E-04	0.00E+00	0.00E+00	0.00E+00
371664.00	3758242.33	3.40E-04	1.13E-02	1.75E-02	1.10E-02	6.28E-03	2.79E-03	1.76E-03	6.90E-04	1.00E-04	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
371678.83	3757576.47	1.82E-03	2.31E-01	2.35E-01	5.50E-02	2.12E-02	1.00E-02	1.92E-02	7.98E-03	9.80E-04	1.90E-04	9.80E-04	0.00E+00	0.00E+00	0.00E+00
371680.99	3757202.68	3.36E-03	6.83E-02	7.97E-02	7.52E-02	3.49E-02	9.00E-03	7.91E-03	2.56E-03	9.90E-04	1.90E-04	9.90E-04	0.00E+00	0.00E+00	0.00E+00
371683.71	3757291.78	2.50E-03	1.00E-01	1.09E-01	5.66E-02	2.45E-02	8.89E-03	1.12E-02	4.57E-03	1.02E-03	2.00E-04	1.02E-03	0.00E+00	0.00E+00	0.00E+00
371734.36	3755397.50	3.40E-04	4.48E-03	8.82E-03	8.86E-03	4.28E-03	1.58E-03	7.70E-04	1.60E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
371750.66	3756954.80	8.32E-03	4.80E-02	5.26E-02	5.77E-02	3.99E-02	1.51E-02	4.58E-03	1.43E-03	5.70E-04	1.10E-04	5.70E-04	0.00E+00	0.00E+00	0.00E+00
371767.81	3758230.27	3.50E-04	1.22E-02	1.88E-02	1.15E-02	6.64E-03	2.99E-03	1.97E-03	7.80E-04	1.00E-04	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
371801.04	3755399.23	3.40E-04	4.37E-03	8.60E-03	8.57E-03	4.16E-03	1.55E-03	7.50E-04	1.60E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
371812.25	3757364.20	2.01E-03	4.89E-02	5.91E-02	4.83E-02	2.41E-02	8.34E-03	1.94E-03	1.59E-03	8.91E-03	1.70E-03	8.91E-03	0.00E+00	0.00E+00	0.00E+00
371825.62	3758161.92	3.90E-04	1.48E-02	2.20E-02	1.28E-02	7.30E-03	3.33E-03	2.44E-03	1.00E-03	1.20E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
371849.10	3756953.29	5.70E-03	3.88E-02	4.82E-02	4.98E-02	3.74E-02	1.53E-02	4.21E-03	1.44E-03	4.70E-04	9.00E-05	4.70E-04	0.00E+00	0.00E+00	0.00E+00
371866.03	3757363.09	2.05E-03	2.71E-01	1.48E-01	4.69E-02	2.14E-02	9.37E-03	1.36E-02	1.12E-02	7.20E-04	1.40E-04	7.20E-04	0.00E+00	0.00E+00	0.00E+00
371867.72	3755400.96	3.40E-04	4.25E-03	8.38E-03	8.30E-03	4.05E-03	1.52E-03	7.20E-04	1.60E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
371895.02	3758059.68	4.60E-04	2.09E-02	2.87E-02	1.52E-02	8.47E-03	3.97E-03	3.45E-03	1.51E-03	1.50E-04	3.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
371898.90	3758134.17	4.10E-04	1.65E-02	2.41E-02	1.36E-02	7.80E-03	3.60E-03	2.76E-03	1.15E-03	1.30E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
371909.58	3757435.59	1.65E-03	7.64E-01	6.14E-01	4.83E-02	1.63E-02	5.94E-03	1.09E-02	2.24E-02	2.22E-02	6.40E-04	1.20E-04	6.40E-04	0.00E+00	0.00E+00
371916.85	3757398.54	1.85E-03	3.88E-01	2.18E-01	4.48E-02	2.03E-02	9.44E-03	1.45E-02	1.42E-02	6.50E-04	1.30E-04	6.50E-04	0.00E+00	0.00E+00	0.00E+00
371917.20	3757362.27	2.08E-03	2.50E-01	1.27E-01	4.58E-02	2.13E-02	9.05E-03	1.15E-02	1.58E-02	6.60E-04	1.30E-04	6.60E-04	0.00E+00	0.00E+00	0.00E+00
371927.01	3757742.18	8.10E-04	1.16E-01	1.16E-01	2.95E-02	1.32E-02	1.00E-02	2.51E-02	2.04E-02	3.60E-04	7.00E-05	3.60E-04	0.00E+00	0.00E+00	0.00E+00
371928.06	3757790.69	7.40E-04	8.61E-02	8.87E-02	2.88E-02	1.23E-02	7.62E-03	1.49E-02	1.26E-02	3.10E-04	6.00E-05	3.10E-04	0.00E+00	0.00E+00	0.00E+00
371934.40	3755402.69	3.40E-04	4.14E-03	8.18E-03	8.04E-03	3.96E-03	1.50E-03	7.00E-04	1.50E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
371934.40	3757852.44	6.60E-04	5.83E-02	6.42E-02	2.31E-02	1.13E-02	6.12E-03	9.18E-03	5.90E-03	2.60E-04	5.00E-05	2.60E-04	0.00E+00	0.00E+00	0.00E+00
371937.61	3757919.43	5.90E-04	3.93E-02	4.71E-02	1.97E-02	1.03E-02	5.19E-03	6.24E-03	3.21E-03	2.20E-04	4.00E-05	2.20E-04	0.00E+00	0.00E+00	0.00E+00
371940.82	3757986.42	5.20E-04	2.85E-02	3.67E-02	1.74E-02	9.49E-03	4.58E-03	4.63E-03	2.16E-03	1.80E-04	4.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
371944.03	3758053.41	4.70E-04	2.19E-02	3.01E-02	1.56E-02	8.76E-03	4.13E-03	3.63E-03	1.60E-03	1.50E-04	3.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
371947.54	3756951.78	4.19E-03	3.23E-02	4.44E-02	4.42E-02	3.58E-02	1.55E-02	3.89E-03	1.41E-03	3.90E-04	8.00E-05	3.90E-04	0.00E+00	0.00E+00	0.00E+00
371954.98	3757424.18	1.72E-03	3.94E-01	3.00E-01	4.37E-02	1.99E-02	9.87E-03	1.63E-02	2.43E-02	6.10E-04	1.20E-04	6.10E-04	0.00E+00	0.00E+00	0.00E+00
372007.70	3757423.57	1.73E-03	2.74E-01	2.29E-01	4.29E-02	2.02E-02	9.74E-03	1.41E-02	1.58E-02	5.70E-04	1.10E-04	5.70E-04	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_PM10_Annual.xlsx PM10 Annual Summary by Source

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Diesel Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
372031.48	3757755.88	8.00E-04	2.08E-01	1.75E-01	3.82E-02	1.37E-02	1.03E-02	2.46E-02	1.81E-02	3.30E-04	6.00E-05	3.30E-04	0.00E+00	0.00E+00	0.00E+00
372033.85	3755399.05	3.40E-04	3.96E-03	7.86E-03	7.69E-03	3.83E-03	1.47E-03	6.60E-04	1.50E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
372045.99	3756950.26	3.25E-03	2.74E-02	4.13E-02	4.02E-02	3.48E-02	1.59E-02	3.56E-03	1.29E-03	3.30E-04	6.00E-05	3.30E-04	0.00E+00	0.00E+00	0.00E+00
372060.42	3757422.83	1.74E-03	2.01E-01	2.08E-01	4.19E-02	2.03E-02	9.55E-03	1.24E-02	1.09E-02	5.30E-04	1.00E-04	5.30E-04	0.00E+00	0.00E+00	0.00E+00
372097.97	3757754.97	8.20E-04	3.32E-01	2.64E-01	4.06E-02	1.42E-02	1.04E-02	2.42E-02	1.45E-02	3.20E-04	6.00E-05	3.20E-04	0.00E+00	0.00E+00	0.00E+00
372114.62	3757440.24	1.65E-03	1.78E-01	2.07E-01	4.09E-02	2.02E-02	9.87E-03	1.31E-02	9.29E-03	4.90E-04	9.00E-05	4.90E-04	0.00E+00	0.00E+00	0.00E+00
372133.29	3755395.42	3.30E-04	3.79E-03	7.57E-03	7.39E-03	3.71E-03	1.45E-03	6.20E-04	1.50E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
372144.43	3756948.75	2.62E-03	2.36E-02	3.90E-02	3.75E-02	3.41E-02	1.63E-02	3.24E-03	1.12E-03	2.90E-04	6.00E-05	2.90E-04	0.00E+00	0.00E+00	0.00E+00
372152.01	3757362.33	1.98E-03	8.17E-02	1.15E-01	4.32E-02	2.18E-02	9.21E-03	6.74E-03	5.51E-03	4.70E-04	9.00E-05	4.70E-04	0.00E+00	0.00E+00	0.00E+00
372153.80	3757418.83	1.73E-03	1.34E-01	1.99E-01	4.14E-02	2.09E-02	9.56E-03	9.89E-03	7.01E-03	4.70E-04	9.00E-05	4.70E-04	0.00E+00	0.00E+00	0.00E+00
372154.47	3755398.86	3.30E-04	3.94E-03	7.82E-03	7.65E-03	3.82E-03	1.49E-03	6.50E-04	1.50E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
372156.97	3757518.41	1.36E-03	1.84E-01	2.13E-01	3.85E-02	1.92E-02	1.19E-02	2.32E-02	1.28E-02	4.40E-04	9.00E-05	4.40E-04	0.00E+00	0.00E+00	0.00E+00
372159.47	3757596.96	1.14E-03	2.19E-01	2.20E-01	3.58E-02	1.78E-02	1.36E-02	3.33E-02	1.72E-02	4.00E-04	8.00E-05	4.00E-04	0.00E+00	0.00E+00	0.00E+00
372161.97	3757675.51	9.70E-04	3.93E-01	3.05E-01	3.39E-02	1.64E-02	1.28E-02	3.18E-02	1.65E-02	3.60E-04	7.00E-05	3.60E-04	0.00E+00	0.00E+00	0.00E+00
372164.46	3757754.06	8.30E-04	2.84E-01	2.32E-01	4.18E-02	1.49E-02	1.03E-02	2.24E-02	1.22E-02	3.10E-04	6.00E-05	3.10E-04	0.00E+00	0.00E+00	0.00E+00
372232.73	3755391.79	3.30E-04	3.63E-03	7.30E-03	7.15E-03	3.61E-03	1.43E-03	5.90E-04	1.40E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
372242.87	3756947.24	2.17E-03	2.06E-02	3.72E-02	3.56E-02	3.39E-02	1.70E-02	2.94E-03	9.60E-04	2.50E-04	5.00E-05	2.50E-04	0.00E+00	0.00E+00	0.00E+00
372232.18	3755388.14	3.30E-04	3.84E-03	7.64E-03	7.48E-03	3.74E-03	1.46E-03	6.00E-04	1.40E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
372341.31	3756945.73	1.85E-03	1.82E-02	3.58E-02	3.45E-02	3.38E-02	1.81E-02	2.68E-03	8.30E-04	2.20E-04	4.00E-05	2.20E-04	0.00E+00	0.00E+00	0.00E+00
372410.73	3755381.99	3.20E-04	3.37E-03	6.82E-03	6.84E-03	3.44E-03	1.41E-03	5.40E-04	1.30E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
372439.76	3756944.21	1.60E-03	1.63E-02	3.50E-02	3.40E-02	3.37E-02	1.99E-02	2.47E-03	7.30E-04	1.90E-04	4.00E-05	1.90E-04	0.00E+00	0.00E+00	0.00E+00
372489.28	3755375.83	3.20E-04	3.26E-03	6.61E-03	6.79E-03	3.37E-03	1.40E-03	5.20E-04	1.30E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
372538.20	3756942.70	1.41E-03	1.47E-02	3.48E-02	3.37E-02	3.28E-02	2.26E-02	2.30E-03	6.60E-04	1.70E-04	3.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
372567.83	3755369.67	3.10E-04	3.15E-03	6.41E-03	6.82E-03	3.28E-03	1.38E-03	5.00E-04	1.30E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
372621.24	3755363.46	3.10E-04	3.04E-03	6.19E-03	6.76E-03	3.15E-03	1.37E-03	4.90E-04	1.30E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
372627.96	3756505.77	1.36E-03	7.69E-03	1.60E-02	1.43E-02	8.33E-03	4.14E-03	1.24E-03	3.30E-04	7.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
372628.35	3756589.05	9.50E-04	8.16E-03	1.81E-02	1.64E-02	9.60E-03	4.88E-03	1.37E-03	3.60E-04	8.00E-05	2.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
372630.81	3757026.03	1.40E-03	1.52E-02	4.36E-02	4.26E-02	3.56E-02	7.37E-02	2.45E-03	6.90E-04	1.80E-04	4.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
372632.23	3757120.50	1.50E-03	1.76E-02	6.03E-02	7.29E-02	3.95E-02	1.40E-01	3.03E-03	8.00E-04	2.10E-04	4.00E-05	2.10E-04	0.00E+00	0.00E+00	0.00E+00
372632.53	3756752.34	9.50E-04	1.01E-02	2.36E-02	2.19E-02	1.33E-02	7.35E-03	1.67E-03	4.40E-04	1.10E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
372634.59	3756846.76	1.03E-03	1.15E-02	2.28E-02	2.65E-02	1.58E-02	1.04E-02	1.88E-03	5.00E-04	1.30E-04	3.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
372634.70	3757211.58	1.53E-03	2.11E-02	7.55E-02	9.95E-02	5.06E-02	2.97E-02	3.98E-03	1.02E-03	2.40E-04	5.00E-05	2.40E-04	0.00E+00	0.00E+00	0.00E+00
372636.64	3756941.19	1.25E-03	1.33E-02	3.47E-02	3.31E-02	2.59E-02	2.02E-02	2.13E-03	5.90E-04	1.60E-04	3.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
372650.02	3757248.61	1.49E-03	2.29E-02	8.78E-02	1.11E-01	7.02E-02	2.83E-02	4.57E-03	1.13E-03	2.40E-04	5.00E-05	2.40E-04	0.00E+00	0.00E+00	0.00E+00
372671.90	3757332.14	1.41E-03	2.87E-02	1.57E-01	1.19E-01	7.67E-02	2.67E-02	5.06E-03	1.47E-03	2.50E-04	5.00E-05	2.50E-04	0.00E+00	0.00E+00	0.00E+00
372672.36	3756975.42	1.26E-03	1.37E-02	3.84E-02	3.64E-02	3.07E-02	2.56E-02	2.21E-03	6.20E-04	1.60E-04	3.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
372672.57	3757018.04	1.33E-03	1.47E-02	4.38E-02	4.18E-02	3.34E-02	4.28E-02	2.39E-03	6.80E-04	1.70E-04	3.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
372692.63	3756838.53	9.90E-04	1.15E-02	2.28E-02	2.16E-02	1.34E-02	9.44E-03	1.83E-03	4.80E-04	8.00E-05	2.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
372694.60	3756751.91	9.20E-04	9.58E-03	2.32E-02

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Diesel Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
373641.00	3757383.00	7.20E-04	1.21E-02	4.92E-02	7.04E-02	6.32E-02	5.52E-02	2.01E-03	5.96E-04	1.10E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
373641.00	3757483.00	7.10E-04	1.40E-02	6.23E-02	8.12E-02	7.37E-02	4.82E-02	2.27E-03	7.20E-04	1.20E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
373641.00	3757583.00	6.90E-04	1.57E-02	6.97E-02	8.95E-02	9.06E-02	5.56E-02	2.51E-03	8.50E-04	1.20E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
373641.00	3757683.00	6.70E-04	1.72E-02	6.88E-02	8.59E-02	9.41E-02	5.93E-02	2.71E-03	9.70E-04	1.30E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
373641.00	3757783.00	6.30E-04	1.81E-02	6.17E-02	6.78E-02	7.52E-02	4.60E-02	2.87E-03	1.07E-03	1.30E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
373641.00	3757883.00	5.90E-04	1.84E-02	5.20E-02	4.70E-02	4.98E-02	2.80E-02	2.94E-03	1.13E-03	1.20E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
373641.00	3757983.00	5.50E-04	1.81E-02	4.29E-02	3.24E-02	3.14E-02	1.65E-02	2.93E-03	1.14E-03	1.20E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
373687.89	3757980.08	5.50E-04	1.76E-02	4.24E-02	3.31E-02	3.23E-02	1.72E-02	2.84E-03	1.09E-03	1.20E-04	2.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
373900.00	3735500.00	7.00E-05	1.15E-03	2.32E-03	2.14E-03	1.14E-03	4.70E-04	2.00E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373900.00	3754500.00	1.00E-04	1.39E-03	2.99E-03	2.78E-03	1.54E-03	6.70E-04	2.30E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373900.00	3755500.00	1.10E-04	1.87E-03	4.15E-03	4.11E-03	2.21E-03	1.09E-03	3.10E-04	7.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373900.00	3756500.00	9.40E-04	4.02E-03	7.96E-03	7.80E-03	4.81E-03	2.51E-03	6.30E-04	1.40E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
373900.00	3757500.00	6.30E-04	1.17E-02	4.14E-02	4.84E-02	4.34E-02	2.81E-02	1.91E-03	6.00E-04	1.00E-04	2.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
373900.00	3758500.00	3.40E-04	1.10E-02	1.82E-02	1.14E-02	8.17E-03	4.01E-03	1.83E-03	6.80E-04	8.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
373900.00	3760500.00	7.00E-05	1.47E-03	2.75E-03	2.14E-03	1.35E-03	6.20E-04	2.50E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373900.00	3761500.00	4.00E-05	8.50E-04	1.50E-03	1.16E-03	7.30E-04	3.40E-04	1.40E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373900.00	3764500.00	2.00E-05	2.90E-04	4.70E-04	3.70E-04	2.40E-04	1.20E-04	5.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3754500.00	7.00E-05	1.01E-03	2.13E-03	1.98E-03	1.11E-03	5.20E-04	1.70E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374900.00	3755500.00	1.10E-04	1.37E-03	2.91E-03	2.75E-03	1.57E-03	7.40E-04	2.30E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374900.00	3756500.00	4.10E-04	2.65E-03	5.01E-03	4.91E-03	2.74E-03	1.28E-03	4.40E-04	1.00E-04	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
374900.00	3757500.00	4.40E-04	6.56E-03	1.57E-02	1.50E-02	1.15E-02	6.61E-03	1.08E-03	3.20E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
374900.00	3759500.00	1.50E-04	3.82E-03	6.26E-03	4.34E-03	2.82E-03	1.31E-03	6.50E-04	2.20E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
374900.00	3760500.00	8.00E-05	1.65E-03	2.64E-03	1.91E-03	1.16E-03	5.50E-04	2.70E-04	9.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
374900.00	3761500.00	4.00E-05	7.60E-04	1.29E-03	1.07E-03	6.80E-04	3.00E-04	1.40E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374900.00	3762500.00	2.00E-05	3.30E-04	6.10E-04	4.60E-04	3.00E-04	1.40E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3763500.00	2.00E-05	3.40E-04	6.00E-04	4.60E-04	3.00E-04	1.40E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3764500.00	2.00E-05	4.10E-04	7.20E-04	5.60E-04	3.60E-04	1.70E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3735500.00	4.00E-05	6.70E-04	1.40E-03	1.30E-03	7.30E-04	3.20E-04	1.10E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375900.00	3755500.00	8.00E-05	1.06E-03	2.20E-03	2.08E-03	1.17E-03	5.30E-04	1.80E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375900.00	3756500.00	2.40E-04	1.99E-03	3.72E-03	3.57E-03	1.93E-03	8.60E-04	3.40E-04	8.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
375900.00	3760500.00	8.00E-05	1.88E-03	3.21E-03	2.29E-03	1.53E-03	7.10E-04	3.20E-04	1.00E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
375900.00	3761500.00	5.00E-05	9.70E-04	1.62E-03	1.13E-03	6.70E-04	3.00E-04	1.50E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375900.00	3762500.00	3.00E-05	6.70E-04	1.06E-03	8.90E-04	5.30E-04	2.40E-04	1.20E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375900.00	3763500.00	2.00E-05	4.50E-04	8.70E-04	7.40E-04	4.70E-04	2.20E-04	8.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375900.00	3764500.00	2.00E-05	4.20E-04	8.00E-04	6.60E-04	4.10E-04	1.90E-04	7.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376084.62	3761776.42	4.00E-05	8.60E-04	1.43E-03	1.00E-03	6.00E-04	2.70E-04	1.40E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3755500.00	7.00E-05	8.60E-04	1.73E-03	1.64E-03	9.00E-04	4.00E-04	1.50E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3756500.00	1.90E-04	1.88E-03	3.21E-03	2.29E-03	1.51E-03	6.60E-04	2.70E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3758500.00	2.30E-04	4.43E-03	8.84E-03	7.23E-03	5.28E-03	2.72E-03	7.40E-04	2.40E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3759500.00	1.50E-04	3.57E-03	6.21E-03	4.56E-03	3.08E-03	1.47E-03	5.90E-04	2.00E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3760500.00	9.00E-05	2.13E-03	3.50E-03	2.54E-03	1.62E-03	7.60E-04	3.60E-04	1.20E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3761500.00	5.00E-05	1.15E-03	2.00E-03	1.53E-03	9.80E-04	4.60E-04	2.00E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3762500.00	3.00E-05	7.30E-04	1.25E-03	9.00E-04	5.60E-04	2.60E-04	1.20E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3764500.00	2.00E-05	4.40E-04	8.00E-04	6.60E-04	4.00E-04	1.80E-04	7.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377900.00	3735500.00	3.00E-05	4.60E-04	8.60E-04	8.60E-04	4.90E-04	2.20E-04	8.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377900.00	3754500.00	3.00E-05	4.40E-04	1.11E-03	1.02E-03	5.80E-04	2.50E-04	9.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377900.00	3755500.00	5.00E-05	7.10E-04	1.37E-03	1.32E-03	7.00E-04	2.90E-04	1.30E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377900.00	3756500.00	1.10E-04	1.18E-03	2.14E-03	2.08E-03	1.09E-03	4.60E-04	2.10E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377900.00	3757500.00	1.80E-04	2.27E-03	4.36E-03	3.88E-03	2.44E-03	1.19E-03	3.80E-04	1.00E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
377900.00	3759500.00	1.60E-04	3.38E-03	6.17E-03	4.75E-03	3.25E-03	1.59E-03	5.70E-04	1.80E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
377900.00	3760500.00	1.00E-04	2.24E-03	3.68E-03	2.78E-03	1.64E-03	8.80E-04	3.70E-04	1.20E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
377900.00	3761500.00	6.00E-05	1.34E-03	2.22E-03	1.68E-03	1.05E-03	4.90E-04	2.30E-04	7.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377900.00	3762500.00	4.00E-05	8.30E-04	1.45E-03	1.11E-03	7.20E-04	3.40E-04	1.40E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377900.00	3763500.00	3.00E-05	5.90E-04	1.04E-03	7.90E-04	5.00E-04	2.30E-04	1.00E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377900.00	3764500.00	2.00E-05	4.80E-04	8.20E-04	6.40E-04	3.80E-04	1.70E-04	8.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378528.59	3764156.44	2.00E-05	5.00E-04	8.90E-04	6.70E-04	4.30E-04	2.00E-04	8.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
378900.00	3735500.00	2.00E-05	3.90E-04	8.10E-04	7.40E-04	4.20E-04	1.80E-04	7.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378900.00	3755500.00	4.00E-05	5.40E-04	9.90E-04	9.40E-04	5.00E-04	2.10E-04	1.00E-04	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
378900.00	3756500.00	9.00E-05	9.40E-04	1.71E-03	1.66E-03	8.70E-04	3.70E-04	1.70E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
378900.00	3757500.00	1.40E-04	1.84E-03	3.47E-03	3.08E-03	1.90E-03	9.10E-04	3.10E-04	8.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
378900.00	3758500.00	1.60E-04	2.70E-03	5.13E-03	4.29E-03	2.95E-03	1.49E-03	4.60E-04	1.40E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
378900.00	3759500.00	1.50E-04	2.91E-03	5.40E-03	4.27E-03	2.94E-03	1.46E-03	4.90E-04	1.60E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
378900.00	3760500.00	1.00E-04	2.23E-03	3.88E-03	2.90E-03	1.95E-03	9.40E-04	3.70E-04	1.20E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
378900.00	3762500.00	5.00E-05	9.10E-04	1.53E-03	1.19E-03	7.40E-04	3.50E-04	1.60E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
378900.00	3763500.00	3.00E-05	6.10E-04	1.07E-03	8.30E-04	5.30E-04	2.50E-04	1.00E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
378900.00	3764500.00	2.00E-05	4.60E-04	8.20E-04	6.20E-04	4.00E-04	1.80E-04	8.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
378902.85	3757271.45	1.30E-04	1.57E-03	2.91E-03	2.66E-03	1.56E-03	7.30E-04	2.70E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
379900.00	3754500.00	3.00E-05	3.70E-04	6.90E-04	6.60E-04	3.60E-04	1.50E-04	7.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379900.00	3755500.00	3.00E-05	4.80E-04	8.70E-04	8.10E-04	4.30E-04	1.80E-04	9.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379900.00	3756500.00	8.00E-05	8.50E-04	1.54E-03	1.49E-03	7.90E-04	3.30E-04	1.50E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_PM10_Annual.xlsx

PM10 Annual Summary by Source

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Diesel Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
379900.00	3757500.00	1.20E-04	1.53E-03	2.86E-03	2.53E-03	1.55E-03	7.40E-04	2.60E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
379900.00	3759500.00	1.30E-04	2.46E-03	4.54E-03	3.66E-03	2.51E-03	1.25E-03	4.20E-04	1.30E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
379900.00	3760500.00	1.00E-04	2.13E-03	3.76E-03	2.89E-03	1.94E-03	9.40E-04	3.60E-04	1.10E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
379900.00	3761500.00	7.00E-05	1.47E-03	2.51E-03	1.87E-03	1.23E-03	5.90E-04	2.50E-04	8.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
379900.00	3762500.00	5.00E-05	1.16E-03	1.25E-03	7.80E-04	5.70E-04	1.70E-04	5.00E-05	1.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
379900.00	3763500.00	3.00E-05	6.60E-04	1.12E-03	8.80E-04	5.50E-04	2.60E-04	1.10E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
379900.00	3764500.00	2.00E-05	4.60E-04	8.20E-04	6.30E-04	4.10E-04	2.00E-04	8.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
380900.00	3753500.00	2.00E-05	2.70E-04	5.20E-04	4.80E-04	2.70E-04	1.20E-04	5.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
380900.00	3754500.00	2.00E-05	3.30E-04	6.00E-04	5.80E-04	3.10E-04	1.30E-04	6.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
380900.00	3755500.00	3.00E-05	4.60E-04	8.40E-04	7.80E-04	4.20E-04	1.80E-04	8.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
380900.00	3756500.00	6.00E-05	7.20E-04	1.39E-03	1.32E-03	7.00E-04	2.90E-04	1.40E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
380900.00	3757500.00	1.00E-04	1.29E-03	2.38E-03	2.11E-03	1.28E-03	6.00E-04	2.20E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
380900.00	3758500.00	1.20E-04	1.83E-03	3.38E-03	2.87E-03	1.90E-03	9.40E-04	3.10E-04	9.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
380900.00	3759500.00	1.20E-04	2.10E-03	3.83E-03	3.12E-03	2.12E-03	1.06E-03	3.60E-04	1.10E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
380900.00	3760500.00	1.00E-04	1.97E-03	3.51E-03	2.76E-03	1.85E-03	9.00E-04	3.40E-04	1.10E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
380900.00	3761500.00	7.00E-05	1.48E-03	2.55E-03	1.93E-03	1.28E-03	6.20E-04	2.50E-04	8.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
380900.00	3762500.00	5.00E-05	1.03E-03	1.75E-03	1.31E-03	8.40E-04	4.00E-04	1.80E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
380900.00	3763500.00	4.00E-05	7.70E-04	1.39E-03	1.12E-03	7.20E-04	3.40E-04	1.40E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
380900.00	3764500.00	2.00E-05	3.10E-04	5.70E-04	5.30E-04	2.80E-04	1.20E-04	5.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3754500.00	2.00E-05	3.30E-04	6.00E-04	4.90E-04	3.00E-04	1.40E-04	6.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3755500.00	3.00E-05	4.30E-04	8.00E-04	7.40E-04	4.00E-04	1.70E-04	8.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3756500.00	6.00E-05	6.90E-04	1.25E-03	1.17E-03	6.30E-04	2.70E-04	1.20E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
381900.00	3757500.00	8.00E-05	1.10E-03	2.01E-03	1.78E-03	1.07E-03	5.00E-04	1.90E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
381900.00	3759500.00	1.10E-04	1.81E-03	3.27E-03	2.68E-03	1.80E-03	9.00E-04	3.10E-04	1.00E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
381900.00	3760500.00	1.00E-04	1.79E-03	3.19E-03	2.54E-03	1.70E-03	8.30E-04	3.10E-04	1.00E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
381900.00	3761500.00	7.00E-05	1.47E-03	2.51E-03	1.87E-03	1.23E-03	5.90E-04	2.50E-04	8.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
381900.00	3762500.00	5.00E-05	1.05E-03	1.79E-03	1.35E-03	8.90E-04	4.20E-04	1.80E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
381900.00	3763500.00	4.00E-05	7.70E-04	1.28E-03	9.80E-04	6.20E-04	2.90E-04	1.30E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
381900.00	3764500.00	3.00E-05	5.40E-04	9.00E-04	7.10E-04	4.40E-04	2.00E-04	9.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
382900.00	3735500.00	1.00E-04	2.40E-04	4.50E-04	4.20E-04	2.30E-04	9.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
382900.00	3754500.00	2.00E-05	3.00E-04	5.70E-04	5.30E-04	2.80E-04	1.20E-04	5.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
382900.00	3755500.00	5.00E-05	6.20E-04	1.29E-03	1.19E-03	6.20E-04	2.50E-04	1.00E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
382900.00	3756500.00	5.00E-05	6.30E-04	1.13E-03	1.04E-03	5.70E-04	2.50E-04	1.10E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
382900.00	3757500.00	7.00E-05	9.50E-04	1.72E-03	1.52E-03	9.10E-04	4.30E-04	1.60E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
382900.00	3758500.00	9.00E-05	1.32E-03	2.38E-03	2.04E-03	1.31E-03	6.40E-04	2.30E-04	7.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
382900.00	3759500.00	9.00E-05	1.57E-03	2.82E-03	2.33E-03	1.55E-03	7.70E-04	2.70E-04	8.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
382900.00	3760500.00	9.00E-05	1.60E-03	2.85E-03	2.30E-03	1.54E-03	7.60E-04	2.80E-04	9.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
382900.00	3761500.00	7.00E-05	1.43E-03	2.50E-03	1.96E-03	1.29E-03	6.20E-04	2.50E-04	8.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
382900.00	3762500.00	5.00E-05	1.07E-03	1.83E-03	1.38E-03	9.10E-04

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Diesel Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
371041.00	3757283.00	2.25E-03	4.84E-02	6.99E-02	6.21E-02	3.09E-02	1.02E-02	4.20E-02	1.39E-03	1.40E-02	2.71E-03	1.40E-02	0.00E+00	0.00E+00	0.00E+00
371141.00	3757083.00	4.90E-03	6.33E-02	1.08E-01	1.29E-01	5.40E-02	1.19E-02	8.50E-03	1.53E-03	6.29E-03	1.22E-03	6.29E-03	0.00E+00	0.00E+00	0.00E+00
371141.00	3757183.00	3.12E-03	5.49E-02	8.44E-02	8.61E-02	4.00E-02	1.11E-02	9.00E-03	1.58E-03	6.69E-03	1.29E-03	6.69E-03	0.00E+00	0.00E+00	0.00E+00
371141.00	3757283.00	2.21E-03	5.21E-02	7.41E-02	6.17E-02	3.01E-02	9.63E-03	1.90E-02	1.59E-03	5.75E-03	1.11E-03	5.75E-03	0.00E+00	0.00E+00	0.00E+00
371150.00	3757970.99	4.30E-04	1.57E-02	2.20E-02	1.36E-02	7.31E-03	3.13E-03	2.61E-03	9.30E-04	1.80E-04	4.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
371241.00	3758083.00	5.61E-03	6.15E-02	9.95E-02	1.25E-01	5.26E-02	1.07E-02	7.77E-03	1.58E-03	3.46E-03	6.70E-04	3.46E-03	0.00E+00	0.00E+00	0.00E+00
371241.00	3757183.00	3.14E-03	5.62E-02	8.36E-02	8.30E-02	3.76E-02	1.03E-02	8.70E-03	1.76E-03	3.78E-03	7.30E-04	3.78E-03	0.00E+00	0.00E+00	0.00E+00
371341.00	3758083.00	6.25E-03	6.58E-02	9.61E-02	1.18E-01	5.16E-02	1.02E-02	7.21E-03	1.63E-03	2.26E-03	4.40E-04	2.26E-03	0.00E+00	0.00E+00	0.00E+00
371341.00	3757183.00	3.22E-03	6.26E-02	8.63E-02	7.94E-02	3.54E-02	9.68E-03	8.43E-03	1.96E-03	2.50E-03	4.80E-04	2.50E-03	0.00E+00	0.00E+00	0.00E+00
371441.00	3757083.00	7.62E-03	8.62E-02	9.75E-02	1.10E-01	5.06E-02	1.06E-02	6.73E-03	1.68E-03	1.61E-03	3.10E-04	1.61E-03	0.00E+00	0.00E+00	0.00E+00
371441.00	3757183.00	3.46E-03	8.29E-02	9.34E-02	7.82E-02	3.29E-02	9.34E-03	8.14E-03	2.16E-03	1.80E-03	3.50E-04	1.80E-03	0.00E+00	0.00E+00	0.00E+00
371539.56	3757095.63	7.83E-03	6.80E-02	7.94E-02	9.04E-02	4.34E-02	1.07E-02	6.49E-03	1.84E-03	1.24E-03	2.40E-04	1.24E-03	0.00E+00	0.00E+00	0.00E+00
371540.36	3757178.31	4.00E-03	6.72E-02	8.20E-02	8.00E-02	3.31E-02	9.19E-03	7.75E-03	2.33E-03	1.36E-03	2.60E-04	1.36E-03	0.00E+00	0.00E+00	0.00E+00
371614.33	3757093.32	8.09E-03	6.35E-02	7.24E-02	8.01E-02	4.05E-02	1.13E-02	6.25E-03	1.95E-03	1.03E-03	2.00E-04	1.03E-03	0.00E+00	0.00E+00	0.00E+00
371615.15	3757177.59	4.35E-03	6.49E-02	7.84E-02	7.68E-02	3.18E-02	9.17E-03	7.54E-03	2.54E-03	1.13E-03	2.20E-04	1.13E-03	0.00E+00	0.00E+00	0.00E+00
371641.00	3757083.00	8.52E-03	6.24E-02	6.98E-02	7.72E-02	4.09E-02	1.20E-02	6.06E-03	1.95E-03	9.50E-04	1.80E-04	9.50E-04	0.00E+00	0.00E+00	0.00E+00
371641.00	3757183.00	4.28E-03	6.51E-02	7.81E-02	7.59E-02	3.09E-02	9.13E-03	7.58E-03	2.68E-03	1.07E-03	2.10E-04	1.07E-03	0.00E+00	0.00E+00	0.00E+00
371741.00	3757083.00	7.13E-03	5.53E-02	6.36E-02	6.57E-02	3.71E-02	1.24E-02	5.71E-03	2.18E-03	7.60E-04	1.50E-04	7.60E-04	0.00E+00	0.00E+00	0.00E+00
371741.00	3757183.00	4.36E-03	6.25E-02	7.38E-02	6.89E-02	2.91E-02	9.24E-03	7.23E-03	3.21E-03	8.60E-04	1.70E-04	8.60E-04	0.00E+00	0.00E+00	0.00E+00
371741.00	3757283.00	2.68E-03	9.35E-02	1.00E-01	5.62E-02	2.44E-02	8.87E-03	1.05E-02	4.87E-03	9.10E-04	1.80E-04	9.10E-04	0.00E+00	0.00E+00	0.00E+00
371841.00	3757083.00	5.72E-03	4.78E-02	5.83E-02	5.75E-02	3.44E-02	1.26E-02	5.30E-03	2.56E-03	6.20E-04	1.20E-04	6.20E-04	0.00E+00	0.00E+00	0.00E+00
371841.00	3757183.00	4.11E-03	5.54E-02	6.73E-02	6.37E-02	2.76E-02	9.43E-03	6.67E-03	4.98E-03	7.10E-04	1.40E-04	7.10E-04	0.00E+00	0.00E+00	0.00E+00
371841.00	3757283.00	2.75E-03	8.41E-02	8.61E-02	5.30E-02	2.38E-02	8.89E-03	9.42E-03	7.30E-03	7.50E-04	1.50E-04	7.50E-04	0.00E+00	0.00E+00	0.00E+00
371900.00	3753500.00	1.20E-04	1.78E-03	3.45E-03	3.49E-03	1.76E-03	6.70E-04	3.30E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371900.00	3754500.00	1.20E-04	1.57E-03	3.04E-03	3.08E-03	1.76E-03	6.70E-04	4.60E-04	2.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371900.00	3760500.00	6.00E-05	1.35E-03	2.51E-03	1.91E-03	1.19E-03	5.40E-04	2.00E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371900.00	3761500.00	4.00E-05	8.80E-04	1.68E-03	1.29E-03	8.10E-04	3.60E-04	1.30E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371900.00	3764500.00	2.00E-05	3.90E-04	7.50E-04	6.00E-04	3.80E-04	1.70E-04	6.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371941.00	3758083.00	4.57E-03	4.07E-02	5.38E-02	5.16E-02	3.25E-02	1.28E-02	4.86E-03	2.76E-03	5.20E-04	1.00E-04	5.20E-04	0.00E+00	0.00E+00	0.00E+00
371941.00	3757183.00	3.70E-03	4.72E-02	6.14E-02	6.23E-02	2.64E-02	9.62E-03	5.95E-03	1.12E-02	5.90E-04	1.10E-04	5.90E-04	0.00E+00	0.00E+00	0.00E+00
371941.00	3757283.00	2.70E-03	5.66E-02	7.65E-02	5.00E-02	2.32E-02	8.81E-03	7.78E-03	1.11E-02	6.40E-04	1.20E-04	6.40E-04	0.00E+00	0.00E+00	0.00E+00
371941.00	3757383.00	1.95E-03	4.70E-01	1.59E-01	4.45E-02	2.07E-02	9.06E-03	1.19E-02	1.34E-02	6.30E-04	1.20E-04	6.30E-04	0.00E+00	0.00E+00	0.00E+00
372041.00	3757083.00	3.71E-03	3.44E-02	5.01E-02	4.71E-02	3.11E-02	1.30E-02	4.36E-03	2.13E-03	4.40E-04	8.00E-05	4.40E-04	0.00E+00	0.00E+00	0.00E+00
372041.00	3757183.00	3.26E-03	3.95E-02	5.77E-02	5.90E-02	2.56E-02	9.93E-03	5.13E-03	5.08E-03	5.00E-04	1.00E-04	5.00E-04	0.00E+00	0.00E+00	0.00E+00
372041.00	3757283.00	2.56E-03	5.34E-02	7.31E-02	4.81E-02	2.31E-02	9.02E-03	6.27E-03	8.58E-03	5.40E-04	1.00E-04	5.40E-04	0.00E+00	0.00E+00	0.00E+00
372041.00	3757383.00	1.94E-03	1.58E-01	1.43E-01	4.33E-02	2.10E-02	8.98E-03	9.12E-03	1.05E-02	5.50E-04	1.10E-04	5.50E-04	0.00E+00	0.00E+00	0.00E+00
372041.00	3757783.00	7.70E-04	1.38E-01	1.28E-01	4.22E-02	1.33E-02	8.99E-03	1.92E-02	1.45E-02	3.10E-04	6.00E-05	3.10E-04	0.00E+00	0.00E+00	0.00E+00
372041.00	3757883.00	6.40E-04	5.24E-01	6.07E-02	2.33E-02	1.15E-02	8.20E-03	8.82E-03	4.92E-03	2.40E-04	5.00E-05	2.40E-04	0.00E+00	0.00E+00	0.00E+00
372041.00	3757983.00	5.40E-04	3.09E-02	4.00E-02	1.83E-02	1.01E-02	4.95E-03	5.12E-03	2.37E-03	1.90E-04	4.00E-05	1.90E-04	0.00E+00	0.00E+00	0.00E+00
372141.00	3757083.00	3.05E-03	2.92E-02	4.77E-02	4.41E-02	3.03E-02	1.34E-02	3.86E-03	1.64E-03	3.70E-04	7.00E-05	3.70E-04	0.00E+00	0.00E+00	0.00E+00
372141.00	3757183.00	2.84E-03	3.37E-02	5.58E-02	5.66E-02	2.52E-02	1.04E-02	4.40E-03	2.81E-03	4.30E-04	8.00E-05	4.30E-04	0.00E+00	0.00E+00	0.00E+00
372141.00	3757283.00	2.38E-03	4.68E-02	7.30E-02	4.67E-02	2.31E-02	9.38E-03	5.21E-03	4.56E-03	4.70E-04	9.00E-05	4.70E-04	0.00E+00	0.00E+00	0.00E+00
372141.00	3757383.00	7.80E-04	1.81E-01	1.59E-01	4.57E-02	1.41E-02	9.36E-03	1.93E-02	1.10E-02	3.00E-04	6.00E-05	3.00E-04	0.00E+00	0.00E+00	0.00E+00
372141.00	3757883.00	6.50E-04	5.64E-02	6.50E-02	2.52E-02	1.23E-02	6.79E-03	9.94E-03	5.36E-03	2.40E-04	5.00E-05	2.40E-04	0.00E+00	0.00E+00	0.00E+00
372141.00	3757983.00	5.50E-04	3.34E-02	4.28E-02	1.92E-02	1.08E-02	5.38E-03	5.70E-03	2.54E-03	1.90E-04	4.00E-05	1.90E-04	0.00E+00	0.00E+00	0.00E+00
372241.00	3757083.00	2.56E-03	2.53E-02	4.64E-02	4.25E-02	3.00E-02	1.42E-02	3.44E-03	1.32E-03	3.20E-04	6.00E-05	3.20E-04	0.00E+00	0.00E+00	0.00E+00
372241.00	3757183.00	2.48E-03	2.96E-02	5.57E-02	5.59E-02	2.54E-02	1.13E-02	3.86E-03	1.96E-03	3.70E-04	7.00E-05	3.70E-04	0.00E+00	0.00E+00	0.00E+00
372241.00	3757283.00	2.18E-03	4.08E-02	7.39E-02	4.66E-02	2.37E-02	1.02E-02	4.56E-03	2.99E-03	4.10E-04	8.00E-05	4.10E-04	0.00E+00	0.00E+00	0.00E+00
372241.00	3757483.00	1.46E-03	1.19E-01	1.86E-01	4.01E-02	2.09E-02	1.06E-02	1.33E-02	7.45E-03	4.10E-04	8.00E-05	4.10E-04	0.00E+00	0.00E+00	0.00E+00
372241.00	3757583.00	1.18E-03	1.42E-01	1.60E-01	3.68E-02	1.92E-02	1.19E-02	2.26E-02	1.15E-02	3.80E-04	7.00E-05	3.80E-04	0.00E+00	0.00E+00	0.00E+00
372241.00	3757683.00	9.60E-04	2.08E-01	1.85E-01	3.41E-02	1.72E-02	1.16E-02	2.41E-02	1.22E-02	3.30E-04	6.00E-05	3.30E-04	0.00E+00	0.00E+00	0.00E+00
372241.00	3757783.00	7.90E-04	1.49E-01	1.37E-01	4.76E-02	1.52E-02	9.44E-03	1.73E-02	9.02E-03	2.80E-04	5.00E-05	2.80E-04	0.00E+00	0.00E+00	0.00E+00
372341.00	3757083.00	2.18E-03	2.23E-02	4.57E-02	4.24E-02	3.03E-02	1.59E-02	3.12E-03	1.09E-03	2.80E-04	5.00E-05	2.80E-04	0.00E+00	0.00E+00	0.00E+00
372341.00	3757183.00	2.17E-03	2.63E-02	5.66E-02	5.68E-02	2.64E-02	1.30E-02	3.48E-03	1.50E-03	3.30E-04	6.00E-05	3.30E-04	0.00E+00	0.00E+00	0.00E+00
372341.00	3757283.00	1.98E-03	3.56E-02	7.69E-02	4.85E-02	2.53E-02	1.17E-02	4.14E-03	2.22E-03	3.60E-04	7.00E-05	3.60E-04	0.00E+00	0.00E+00	0.00E+00
372341.00	3757383.00	1.71E-03	5.76E-02	1.38E-01	4.58E-02	2.43E-02	1.10E-02	5.96E-03	3.35E-03	3.70E-04	7.00E-05	3.70E-04	0.00E+00	0.00E+00	0.00E+00
372341.00	3757483.00	1.42E-03	8.55E-02	1.76E-01	4.27E-02	2.30E-02	1.10E-02	5.42E-03	3.70E-03	7.00E-04	1.30E-04	7.00E-04	0.00E+00	0.00E+00	0.00E+00
372341.00	3757583.00	1.17E-03	1.03E-01	1.36E-01	3.91E-02	2.12E-02	1.14E-02	1.59E-02	7.94E-03	3.50E-04	6.00E-05	3.50E-04	0.00E+00	0.00E+00	0.00E+00
372341.00	3757683.00	9.70E-04	1.27E-01	1.34E-01	3.64E-02	1.90E-02	1.10E-02	1.79E-02	8.83E-03	3.10E-04	6.00E-05	3.10E-04	0.00E+00	0.00E+00	0.00E+00
372341.00	3757783.00	8.10E-04	1.11E-01	1.12E-01	4.88E-02	1.67E-02	9.56E-03	1.48E-02	7.38E-03	2.70E-04	5.00E-05	2.70E-04	0.00E+00	0.00E+00	0.00E+00
372441.00	3757083.00	1.88E-03	1.99E-02	4.58E-02	4.50E-02	3.11E-02	2.01E-02	2.89E-03	9.40E-04	2.50E-04	5.00E-05	2.50E-04	0.00E+00	0.00E+00	0.00E+00
372441.00	3757183.00	1.91E-03	2.37E-02	5.87E-02	6.42E-02	2.88E-02	1.66E-02	3.25E-03	1.23E-03	2.90E-04	6.00E-05	2.90E-04	0.00E+00	0.00E+00	0.00E+00
372441.00	3757283.00	1.80E-03	3.14E-02	8.37E-02	5.39E-02	2.87E-02	1.40E-02	3.88E-03	1.76E-03	3.20E-04	6.00E-05	3.20E-04	0.00E+00	0.00E+00	0.00E+00
372441.00	3757383.00	1.62E-03	4.74E-02	1.55E-01	5.34E-02	2.80E-02	1.27E-02	5.35E-03	2.67E-03	3.30E-04	6.00E-05	3.30E-04	0.00E+00	0.00E+00	0.00E+00
372441.00	3757483.00	1.37E-03	6.74E-02	1.88E-01	4.97E-02	2.65E-02	1.22E-02	8.31E-03	4.14E-03	3.30E-04	6.00E-05	3.30E-04	0.00E+00	0.00E+00	0.00E+00
372441.00	3757583.00	1.16E-03	7.94E-02	1.31E-01	4.27E-02	2.43E-02	1.19E-02	1.20E-02	5.84E-03	3.20E-04	6.00E-05	3.20E-04	0.00E+00	0.00E+00	0.00E+00
372441.00	3757683.00	9.70E-04	9.20E-02	1.14E-01	3.84E-02	2.17E-02	1.12E-02	1.38E-02	6.66E-03	2.90E-04	6.00E-05	2.90E-04	0.00E+00	0.00E+00	0.00E+00
372441.00	3757783.00	8.10E-04	8.61E-02	9.59E-02	4.97E-02	1.90E-02	9.94E-03	1.25E-02	6.03E-03	2.60E-04	5.00E-05	2.60E-04	0.00E+00	0.00E+00	0.00E+00
372441.00	3757883.00	6.90E-04	6.16E-02	7.02E-02	2.91E-02	1.63E-02	8.34E-03	9.52E-03	4.55E-03	2.20E-04	4.00E-05	2.20E-04	0.00E+00	0.00E+00	0.00E+00
372441.00	3757983.00	5.80E-04	3.99E-02	4.90E-02	2.17E-02	1.38E-02	6.84E-03	6.68E-03	3.06E-03	1.80E-04	4.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_PM10_Annual.xlsx

PM10 Annual Summary by Source

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Diesel Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
372541.00	3757083.00	1.64E-03	1.80E-02	4.80E-02	5.10E-02	3.28E-02	4.31E-02	2.77E-03	8.30E-04	2.20E-04	4.00E-05	2.20E-04	0.00E+00	0.00E+00	0.00E+00
372541.00	3757183.00	1.70E-03	2.15E-02	6.29E-02	9.79E-02	3.57E-02	2.59E-02	3.21E-03	1.05E-03	2.50E-04	5.00E-05	2.50E-04	0.00E+00	0.00E+00	0.00E+00
372541.00	3757283.00	1.63E-03	2.81E-02	9.41E-02	6.52E-02	3.73E-02	1.77E-02	3.82E-03	1.48E-03	2.80E-04	5.00E-05	2.80E-04	0.00E+00	0.00E+00	0.00E+00
372541.00	3757383.00	1.49E-03	4.04E-02	2.02E-01	7.50E-02	3.58E-02	1.55E-02	4.94E-03	2.20E-03	3.00E-04	6.00E-05	3.00E-04	0.00E+00	0.00E+00	0.00E+00
372541.00	3757483.00	1.31E-03	5.65E-02	2.64E-01	7.38E-02	3.31E-02	1.43E-02	6.98E-03	3.29E-03	3.00E-04	6.00E-05	3.00E-04	0.00E+00	0.00E+00	0.00E+00
372541.00	3757583.00	1.13E-03	6.38E-02	1.40E-01	4.92E-02	2.98E-02	1.33E-02	9.46E-03	4.49E-03	2.90E-04	6.00E-05	2.90E-04	0.00E+00	0.00E+00	0.00E+00
372541.00	3757683.00	9.60E-04	7.17E-02	1.05E-01	4.05E-02	2.62E-02	1.22E-02	1.09E-02	5.19E-03	2.70E-04	5.00E-05	2.70E-04	0.00E+00	0.00E+00	0.00E+00
372541.00	3757783.00	8.10E-04	6.95E-02	8.65E-02	5.08E-02	2.25E-02	1.07E-02	1.05E-02	4.97E-03	2.40E-04	5.00E-05	2.40E-04	0.00E+00	0.00E+00	0.00E+00
372541.00	3757883.00	6.90E-04	5.57E-02	6.70E-02	3.01E-02	1.86E-02	8.97E-03	8.67E-03	4.05E-03	2.10E-04	4.00E-05	2.10E-04	0.00E+00	0.00E+00	0.00E+00
372541.00	3757983.00	5.90E-04	3.97E-02	4.95E-02	2.26E-02	1.51E-02	7.34E-03	6.53E-03	2.96E-03	1.80E-04	3.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
372641.00	3757583.00	1.39E-03	5.55E-02	1.17E-01	4.26E-02	2.68E-02	1.26E-02	8.48E-03	1.86E-03	2.70E-04	5.00E-05	2.70E-04	0.00E+00	0.00E+00	0.00E+00
372641.00	3757683.00	1.25E-03	4.91E-02	5.84E-01	1.68E-01	4.93E-02	1.82E-02	6.06E-03	2.69E-03	2.70E-04	5.00E-05	2.70E-04	0.00E+00	0.00E+00	0.00E+00
372641.00	3757783.00	1.10E-03	5.32E-02	1.57E-01	5.73E-02	4.09E-02	1.62E-02	7.76E-03	3.57E-03	2.70E-04	5.00E-05	2.70E-04	0.00E+00	0.00E+00	0.00E+00
372641.00	3757883.00	9.50E-04	5.85E-02	1.05E-01	4.38E-02	3.48E-02	1.42E-02	8.94E-03	4.15E-03	2.50E-04	5.00E-05	2.50E-04	0.00E+00	0.00E+00	0.00E+00
372641.00	3757983.00	8.10E-04	5.78E-02	8.20E-02	5.67E-02	2.89E-02	1.20E-02	8.91E-03	4.13E-03	2.30E-04	4.00E-05	2.30E-04	0.00E+00	0.00E+00	0.00E+00
372641.00	3757883.00	7.00E-04	4.96E-02	6.44E-02	3.13E-02	2.23E-02	9.73E-03	7.80E-03	3.58E-03	2.00E-04	4.00E-05	2.00E-04	0.00E+00	0.00E+00	0.00E+00
372641.00	3757983.00	6.00E-04	3.83E-02	4.94E-02	2.35E-02	1.67E-02	7.84E-03	6.23E-03	2.79E-03	1.70E-04	3.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
372741.00	3757583.00	1.39E-03	5.53E-02	1.17E-01	4.26E-02	2.68E-02	1.26E-02	8.48E-03	1.86E-03	2.70E-04	5.00E-05	2.70E-04	0.00E+00	0.00E+00	0.00E+00
372741.00	3757683.00	8.10E-04	4.91E-02	7.98E-02	5.44E-02	4.57E-02	1.37E-02	7.63E-03	3.47E-03	2.20E-04	4.00E-05	2.20E-04	0.00E+00	0.00E+00	0.00E+00
372741.00	3757783.00	7.00E-04	4.41E-02	6.23E-02	3.24E-02	2.94E-02	1.07E-02	6.97E-03	3.15E-03	1.90E-04	4.00E-05	1.90E-04	0.00E+00	0.00E+00	0.00E+00
372741.00	3757883.00	6.00E-04	3.61E-02	4.88E-02	2.45E-02	1.82E-02	8.39E-03	5.86E-03	2.59E-03	1.70E-04	3.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
372841.00	3757783.00	8.00E-04	4.24E-02	8.06E-02	4.58E-02	6.15E-02	1.61E-02	6.62E-03	2.96E-03	2.00E-04	4.00E-05	2.00E-04	0.00E+00	0.00E+00	0.00E+00
372841.00	3757883.00	7.00E-04	3.93E-02	6.07E-02	3.36E-02	3.48E-02	1.18E-02	6.24E-03	2.77E-03	1.80E-04	4.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
372841.00	3757983.00	6.10E-04	3.36E-02	4.79E-02	2.52E-02	1.94E-02	9.04E-03	5.45E-03	2.58E-03	1.60E-04	3.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
372841.75	3758083.00	5.90E-04	3.08E-02	4.86E-02	2.66E-02	1.66E-02	7.61E-03	5.30E-03	2.51E-03	1.50E-04	3.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
372857.79	3758854.91	9.30E-04	9.72E-03	2.74E-02	2.47E-02	1.61E-02	9.10E-03	1.61E-03	4.10E-04	1.10E-04	2.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
372900.00	3758500.00	3.10E-04	1.07E-02	1.64E-02	9.67E-03	6.18E-03	2.95E-03	1.82E-03	6.70E-04	8.00E-05	2.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3763500.00	2.00E-05	3.00E-04	5.30E-04	4.10E-04	2.60E-04	1.30E-04	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372900.00	3764500.00	2.00E-05	3.10E-04	5.60E-04	4.40E-04	3.00E-04	1.40E-04	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372941.00	3757783.00	7.80E-04	3.71E-02	8.75E-02	4.93E-02	6.80E-02	1.95E-02	5.79E-03	2.53E-03	1.90E-04	4.00E-05	1.90E-04	0.00E+00	0.00E+00	0.00E+00
372941.00	3757883.00	6.90E-04	6.52E-03	5.49E-02	5.49E-02	5.36E-02	1.58E-02	5.59E-03	2.44E-03	1.80E-04	3.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
372941.00	3757983.00	6.10E-04	3.11E-02	4.69E-02	2.57E-02	2.10E-02	9.77E-03	5.04E-03	2.17E-03	1.60E-04	3.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
373035.50	3755453.68	3.30E-04	2.67E-03	5.55E-03	1.40E-02	2.88E-03	1.31E-03	4.10E-04	1.10E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
373035.50	3755652.82	5.90E-04	3.08E-03	6.16E-03	1.50E-02	3.22E-03	1.50E-03	4.60E-04	1.30E-04	3.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
373041.00	3757783.00	7.70E-04	3.28E-02	8.67E-02	5.85E-02	7.72E-02	2.58E-02	5.11E-03	2.19E-03	1.80E-04	3.00E-05	1.80E-04	0.00E+00	0.00E+00	0.00E+00
373041.00	3757883.00	6.80E-04	3.16E-02	5.94E-02	3.64E-02	3.62E-02	1.58E-02	5.03E-03	2.16E-03	1.70E-04	3.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
373041.00	3757983.00	6.00E-04	2.88E-02	4.60E-02	2.60E-02	2.22E-02	1.04E-02	4.65E-03	1.98E-03	1.50E-04	3.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
373141.00	3757783.00	7.80E-04	6.52E-03	8.49E-02	7.13E-02	9.25E-02	3.68E-02	4.47E-03	1.91E-03	1.70E-04	3.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
373141.00	3757883.00	6.70E-04	2.86E-02	5.96E-02

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Diesel Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
366952.02	3756405.68	8.00E-05	1.28E-03	2.06E-03	2.01E-03	9.20E-04	3.80E-04	4.60E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
366982.97	3757895.00	5.00E-05	8.30E-04	1.36E-03	1.35E-03	6.80E-04	2.90E-04	2.70E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
366990.71	3756317.12	8.00E-05	1.27E-03	2.05E-03	2.00E-03	9.10E-04	3.80E-04	4.60E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367029.39	3756228.58	8.00E-05	1.26E-03	2.03E-03	1.98E-03	9.00E-04	3.80E-04	4.60E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367044.19	3757929.41	5.00E-05	8.20E-04	1.36E-03	1.34E-03	6.80E-04	2.90E-04	2.70E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367068.08	3756140.03	8.00E-05	1.24E-03	2.00E-03	1.95E-03	8.90E-04	3.70E-04	4.50E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367106.77	3756051.48	8.00E-05	1.22E-03	1.97E-03	1.91E-03	8.70E-04	3.60E-04	4.40E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367145.45	3755962.93	8.00E-05	1.19E-03	1.92E-03	1.86E-03	8.60E-04	3.60E-04	4.30E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367163.35	3757937.75	5.00E-05	8.30E-04	1.40E-03	1.39E-03	7.30E-04	3.10E-04	2.60E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367184.14	3755874.38	7.00E-05	1.16E-03	1.88E-03	1.82E-03	8.40E-04	3.50E-04	4.20E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367222.83	3755785.81	7.00E-05	1.14E-03	1.84E-03	1.78E-03	8.10E-04	3.10E-04	4.10E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367261.51	3755697.28	7.00E-05	1.12E-03	1.81E-03	1.76E-03	8.10E-04	3.40E-04	4.10E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367284.84	3756712.75	8.00E-05	1.27E-03	1.45E-03	1.43E-03	7.30E-04	3.20E-04	2.90E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367300.20	3755608.73	7.00E-05	1.11E-03	1.79E-03	1.74E-03	8.10E-04	3.40E-04	4.00E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367338.88	3755520.18	7.00E-05	1.10E-03	1.78E-03	1.72E-03	8.00E-04	3.40E-04	3.90E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367348.39	3757912.82	5.00E-05	8.90E-04	1.47E-03	1.45E-03	7.40E-04	3.20E-04	2.90E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367377.57	3755431.63	7.00E-05	1.09E-03	1.77E-03	1.71E-03	8.00E-04	3.40E-04	3.90E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367401.62	3757882.52	5.00E-05	8.40E-04	1.44E-03	1.38E-03	7.10E-04	3.10E-04	2.70E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367464.88	3755430.72	7.00E-05	1.15E-03	1.86E-03	1.80E-03	8.30E-04	3.50E-04	4.10E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367498.60	3757937.52	5.00E-05	9.00E-04	1.49E-03	1.47E-03	7.60E-04	3.30E-04	2.90E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367539.80	3757864.76	6.00E-05	9.70E-04	1.60E-03	1.58E-03	8.10E-04	3.50E-04	3.10E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367552.20	3755429.80	8.00E-05	1.20E-03	1.94E-03	1.88E-03	8.70E-04	3.70E-04	4.30E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367596.95	3757879.64	6.00E-05	9.70E-04	1.60E-03	1.59E-03	8.20E-04	3.50E-04	3.10E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367628.79	3757855.59	6.00E-05	1.00E-03	1.65E-03	1.63E-03	8.40E-04	3.60E-04	3.20E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367639.51	3757428.89	8.00E-05	1.28E-03	2.06E-03	2.01E-03	9.20E-04	3.80E-04	4.60E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367696.39	3757845.44	6.00E-05	1.02E-03	1.69E-03	1.68E-03	8.60E-04	3.70E-04	3.30E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367700.81	3758169.46	4.00E-05	7.90E-04	1.32E-03	1.28E-03	6.70E-04	2.90E-04	2.50E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367707.57	3757896.37	6.00E-05	9.80E-04	1.62E-03	1.61E-03	8.30E-04	3.60E-04	3.20E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367726.83	3755427.97	9.00E-05	1.33E-03	2.13E-03	2.06E-03	9.50E-04	4.00E-04	4.70E-04	7.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367734.79	3758105.67	5.00E-05	8.30E-04	1.39E-03	1.36E-03	7.10E-04	3.10E-04	2.70E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367743.72	3758010.21	5.00E-05	9.00E-04	1.47E-03	1.45E-03	7.60E-04	3.30E-04	2.90E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367785.33	3758200.53	4.00E-05	7.80E-04	1.31E-03	1.25E-03	6.40E-04	2.80E-04	2.50E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367814.14	3755427.06	9.00E-05	1.39E-03	2.23E-03	2.16E-03	9.90E-04	4.20E-04	5.00E-04	7.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367830.31	3758150.13	5.00E-05	8.20E-04	1.38E-03	1.34E-03	7.00E-04	3.10E-04	2.60E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367839.73	3758178.15	4.00E-05	8.00E-04	1.34E-03	1.28E-03	6.60E-04	2.90E-04	2.60E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367874.18	3755433.41	9.00E-05	1.44E-03	2.31E-03	2.23E-03	1.03E-03	4.30E-04	5.10E-04	7.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367912.80	3758112.41	5.00E-05	8.60E-04	1.44E-03	1.37E-03	7.00E-04	3.10E-04	2.70E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367934.21	3755439.76	9.00E-05	1.48E-03	2.38E-03	2.30E-03	1.06E-03	4.40E-04	5.30E-04	7.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368001.74	3755450.16	1.00E-04	1.54E-03	2.47E-03	2.39E-03	1.10E-03	4.60E-04	5.50E-04	8.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368067.33	3758044.68	5.00E-05	9.40E-04	1.58E-03	1.51E-03	7.70E-04	3.40E-04	3.00E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368069.28	3755460.56	1.00E-04	1.61E-03	2.58E-03	2.49E-03	1.14E-03	4.80E-04	5.80E-04	8.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368136.81	3755470.96	1.10E-04	1.68E-03	2.68E-03	2.59E-03	1.19E-03	5.00E-04	6.10E-04	8.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368139.37	3758014.68	6.00E-05	1.00E-03	1.66E-03	1.62E-03	8.50E-04	3.70E-04	3.20E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368217.94	3755478.99	1.10E-04	1.75E-03	2.80E-03	2.71E-03	1.24E-03	5.20E-04	6.40E-04	9.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368226.20	3757884.68	6.00E-05	1.03E-03	1.68E-03	1.66E-03	8.70E-04	3.70E-04	3.30E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368310.20	3755477.83	1.20E-04	1.81E-03	2.90E-03	2.81E-03	1.29E-03	5.40E-04	6.70E-04	9.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368312.17	3757967.29	6.00E-05	1.06E-03	1.77E-03	1.69E-03	8.60E-04	3.80E-04	3.40E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368386.06	3757966.42	6.00E-05	1.06E-03	1.78E-03	1.71E-03	8.90E-04	3.90E-04	3.40E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368402.45	3755476.67	1.20E-04	1.88E-03	3.01E-03	2.93E-03	1.35E-03	5.60E-04	7.00E-04	1.00E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368459.96	3757965.55	6.00E-05	1.10E-03	1.84E-03	1.79E-03	9.40E-04	4.10E-04	3.50E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368494.71	3755475.51	1.30E-04	1.94E-03	3.12E-03	3.04E-03	1.41E-03	5.80E-04	7.30E-04	1.00E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368533.85	3757964.68	6.00E-05	1.16E-03	1.94E-03	1.90E-03	1.00E-03	4.40E-04	3.60E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368533.98	3757935.39	7.00E-05	1.19E-03	1.99E-03	1.95E-03	1.03E-03	4.50E-04	3.80E-04	7.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368586.97	3755474.35	1.30E-04	1.99E-03	3.20E-03	3.14E-03	1.46E-03	6.00E-04	7.60E-04	1.00E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368594.27	3757948.47	7.00E-05	1.20E-03	2.00E-03	1.96E-03	1.04E-03	4.50E-04	3.80E-04	7.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368657.87	3757978.44	6.00E-05	1.16E-03	1.94E-03	1.90E-03	1.02E-03	4.40E-04	3.60E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368679.22	3755473.19	1.30E-04	2.03E-03	3.27E-03	3.23E-03	1.51E-03	6.20E-04	7.90E-04	1.10E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368710.99	3758011.46	6.00E-05	1.17E-03	1.88E-03	1.85E-03	9.80E-04	4.30E-04	3.50E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368748.06	3758034.51	6.00E-05	1.11E-03	1.86E-03	1.81E-03	9.70E-04	4.20E-04	3.40E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368771.48	3755472.04	1.30E-04	2.04E-03	3.31E-03	3.29E-03	1.56E-03	6.40E-04	8.10E-04	1.10E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368806.72	3758070.98	6.00E-05	1.09E-03	1.83E-03	1.77E-03	9.40E-04	4.10E-04	3.40E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368863.73	3755470.88	1.30E-04	2.02E-03	3.31E-03	3.31E-03	1.58E-03	6.50E-04	8.10E-04	1.10E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368865.39	3758107.46	6.00E-05	1.07E-03	1.80E-03	1.74E-03	9.30E-04	4.00E-04	3.30E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368931.37	3758150.49	5.00E-05	1.02E-03	1.73E-03	1.69E-03	9.10E-04	4.00E-04	3.20E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368955.99	3755469.72	1.20E-04	1.98E-03	3.28E-03	3.32E-03	1.60E-03	6.50E-04	8.10E-04	1.10E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368974.29	3758177.61	5.00E-05	9.90E-04	1.68E-03	1.65E-03	9.00E-04	3.90E-04	3.10E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368992.63	3758138.09	5.00E-05	1.04E-03	1.76E-03	1.72E-03	9.40E-04	4.10E-04	3.30E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369011.06	3758086.77	6.00E-05	1.10E-03	1.86E-03	1.82E-03	9.90E-04	4.30E-04	3.50E-04	7.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369048.25	3755468.56	1.20E-04	1.93E-03	3.22E-03	3.29E-03	1.61E-03	6.50E-04	8.00E-04	1.10E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369097.31	3758131.12	5.00E-05	1.02E-03	1.75E-03	1.73E-03	9.70E-04	4.20E-04	3.30E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Diesel Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
369140.50	3755467.40	1.10E-04	1.86E-03	3.14E-03	3.24E-03	1.60E-03	6.40E-04	7.80E-04	1.10E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369216.91	3758091.16	5.00E-05	1.03E-03	1.78E-03	1.78E-03	1.04E-03	4.50E-04	3.30E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369232.76	3755466.24	1.10E-04	1.80E-03	3.07E-03	3.19E-03	1.58E-03	6.30E-04	7.40E-04	1.10E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369267.76	3758146.04	5.00E-05	1.00E-03	1.75E-03	1.78E-03	1.06E-03	4.50E-04	3.10E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369271.60	3758257.04	4.00E-05	8.20E-04	1.44E-03	1.46E-03	8.70E-04	3.80E-04	2.50E-04	5.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369323.20	3758086.63	5.00E-05	1.06E-03	1.88E-03	1.91E-03	1.14E-03	4.90E-04	3.20E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369328.65	3758304.45	4.00E-05	7.70E-04	1.35E-03	1.37E-03	8.10E-04	3.50E-04	2.30E-04	5.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369329.84	3755464.79	1.10E-04	1.74E-03	3.01E-03	3.13E-03	1.54E-03	6.10E-04	7.00E-04	1.00E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369342.43	3757939.52	6.00E-05	1.29E-03	2.25E-03	2.30E-03	1.36E-03	5.80E-04	4.00E-04	8.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369386.54	3758429.44	3.00E-05	6.80E-04	1.20E-03	1.18E-03	6.80E-04	2.90E-04	2.00E-04	5.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369387.36	3758507.02	3.00E-05	6.30E-04	1.11E-03	1.09E-03	6.10E-04	2.70E-04	1.80E-04	4.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369409.11	3758008.60	5.00E-05	1.16E-03	2.04E-03	2.10E-03	1.26E-03	5.40E-04	3.50E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369426.92	3755463.35	1.00E-04	1.71E-03	2.98E-03	3.10E-03	1.51E-03	5.90E-04	6.60E-04	1.00E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369468.66	3758583.75	3.00E-05	6.00E-04	1.05E-03	9.90E-04	5.40E-04	2.40E-04	1.70E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369524.00	3755461.90	1.00E-04	1.70E-03	2.97E-03	3.07E-03	1.48E-03	5.80E-04	6.40E-04	9.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369549.13	3758582.89	3.00E-05	6.30E-04	1.09E-03	1.01E-03	5.50E-04	2.50E-04	1.80E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369621.08	3755460.45	1.00E-04	1.68E-03	2.96E-03	3.04E-03	1.46E-03	5.80E-04	6.20E-04	9.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369629.67	3758582.03	3.00E-05	6.30E-04	1.11E-03	1.03E-03	5.10E-04	2.20E-04	1.80E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369710.08	3758581.17	3.00E-05	6.70E-04	1.14E-03	1.03E-03	5.70E-04	2.60E-04	1.90E-04	5.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369718.16	3755459.00	1.00E-04	1.65E-03	2.91E-03	2.99E-03	1.45E-03	5.80E-04	6.20E-04	9.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369787.02	3758286.68	4.00E-05	8.50E-04	1.53E-03	1.47E-03	8.50E-04	3.70E-04	2.40E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369788.19	3758398.38	3.00E-05	7.90E-04	1.41E-03	1.34E-03	7.90E-04	3.40E-04	2.20E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369789.37	3758489.35	3.00E-05	7.30E-04	1.30E-03	1.22E-03	7.20E-04	3.10E-04	2.00E-04	5.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369815.24	3755457.56	1.00E-04	1.58E-03	2.82E-03	2.92E-03	1.45E-03	5.90E-04	6.10E-04	9.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369882.84	3758580.47	3.00E-05	6.60E-04	1.16E-03	1.08E-03	5.90E-04	2.60E-04	1.90E-04	5.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369912.32	3755456.11	9.00E-05	1.50E-03	2.70E-03	2.83E-03	1.45E-03	5.90E-04	5.90E-04	9.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369978.66	3758283.45	3.00E-05	8.40E-04	1.52E-03	1.42E-03	8.50E-04	3.70E-04	2.40E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370009.40	3755454.66	8.00E-05	1.42E-03	2.58E-03	2.73E-03	1.44E-03	5.80E-04	5.50E-04	8.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370056.44	3758282.14	3.00E-05	8.10E-04	1.41E-03	1.31E-03	8.00E-04	3.60E-04	2.30E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370106.48	3755453.21	8.00E-05	1.36E-03	2.50E-03	2.66E-03	1.41E-03	5.70E-04	5.10E-04	8.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370130.90	3758282.44	3.00E-05	8.00E-04	1.39E-03	1.29E-03	7.90E-04	3.60E-04	2.20E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370203.56	3755451.77	8.00E-05	1.32E-03	2.46E-03	2.61E-03	1.37E-03	5.50E-04	4.70E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370226.81	3758159.47	3.00E-05	1.00E-03	1.80E-03	1.65E-03	1.01E-03	4.40E-04	2.60E-04	8.00E-05	3.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
370227.55	3758221.46	3.00E-05	9.50E-04	1.69E-03	1.54E-03	9.40E-04	4.10E-04	2.40E-04	8.00E-05	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
370228.30	3758283.44	3.00E-05	9.00E-04	1.59E-03	1.44E-03	8.80E-04	3.90E-04	2.30E-04	7.00E-05	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
370253.14	3758168.84	3.00E-05	1.00E-03	1.80E-03	1.63E-03	9.90E-04	4.30E-04	2.60E-04	8.00E-05	3.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
370300.64	3755450.32	8.00E-05	1.30E-03	2.45E-03	2.59E-03	1.34E-03	5.40E-04	4.50E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370308.97	3758176.51	3.00E-05	1.01E-03	1.81E-03	1.62E-03	9.70E-04	4.30E-04	2.60E-04	8.00E-05	3.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Diesel Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
373057.59	3755829.92	4.30E-04	8.30E-04	1.13E-03	1.51E-03	6.00E-04	3.30E-04	1.40E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373058.79	3755899.65	5.70E-04	9.60E-04	1.19E-03	1.30E-03	6.30E-04	3.50E-04	1.50E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373077.68	3757731.38	1.10E-04	5.04E-03	1.80E-02	1.49E-02	1.50E-02	6.22E-03	1.26E-03	5.80E-04	7.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
373089.44	3756434.13	4.80E-04	1.21E-03	2.00E-03	1.92E-03	1.12E-03	6.50E-04	2.40E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373118.11	3756991.19	1.20E-04	2.15E-03	5.85E-03	5.87E-03	3.64E-03	2.59E-03	4.70E-04	1.30E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
373137.84	3755759.39	1.70E-04	5.90E-04	1.04E-03	1.65E-03	5.60E-04	3.00E-04	1.30E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373138.33	3755829.37	3.30E-04	7.40E-04	1.10E-03	1.43E-03	5.80E-04	3.20E-04	1.30E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373138.82	3755899.35	4.60E-04	8.60E-04	1.15E-03	1.28E-03	6.20E-04	3.40E-04	1.40E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373159.49	3757731.01	1.00E-04	4.60E-03	1.98E-02	2.22E-02	2.23E-02	1.07E-02	1.15E-03	5.20E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
373174.45	3756432.91	4.60E-04	1.15E-03	1.90E-03	1.83E-03	1.07E-03	6.30E-04	2.30E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373179.17	3757023.66	1.10E-04	2.09E-03	5.35E-03	5.69E-03	3.66E-03	2.93E-03	6.00E-04	1.70E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
373213.14	3755758.34	1.70E-04	5.80E-04	1.02E-03	1.45E-03	5.40E-04	2.90E-04	1.20E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373236.62	3757073.64	1.10E-04	1.93E-03	6.51E-03	6.34E-03	4.43E-03	3.68E-03	4.60E-04	1.30E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
373241.30	3757730.64	1.00E-04	4.21E-03	1.91E-02	2.97E-02	3.44E-02	2.18E-02	1.06E-03	4.60E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
373259.45	3756431.68	4.20E-04	1.08E-03	1.81E-03	1.74E-03	1.03E-03	6.10E-04	2.20E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373288.44	3757757.29	1.50E-04	5.50E-04	9.90E-04	1.31E-03	5.30E-04	2.90E-04	1.20E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373303.06	3757072.90	1.10E-04	1.83E-03	5.63E-03	5.77E-03	4.01E-03	3.87E-03	4.40E-04	1.20E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
373317.74	3756432.03	3.60E-04	1.01E-03	1.75E-03	1.69E-03	9.80E-04	5.80E-04	2.00E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373323.11	3757730.27	1.00E-04	3.86E-03	1.63E-02	2.91E-02	3.73E-02	2.69E-02	9.80E-04	4.20E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
373323.28	3757744.87	1.00E-04	3.88E-03	1.54E-02	2.28E-02	2.87E-02	1.93E-02	9.80E-04	4.20E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
373363.74	3755756.24	1.10E-04	5.10E-04	9.60E-04	1.21E-03	5.10E-04	2.80E-04	1.20E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373365.13	3755845.96	3.60E-04	7.20E-04	1.02E-03	1.18E-03	5.50E-04	3.00E-04	1.20E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373366.53	3755935.69	4.70E-04	8.30E-04	1.09E-03	1.15E-03	5.90E-04	3.30E-04	1.30E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373367.92	3756025.41	5.30E-04	9.10E-04	1.16E-03	1.17E-03	6.30E-04	3.60E-04	1.40E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373369.31	3756115.13	5.90E-04	9.90E-04	1.22E-03	1.20E-03	6.90E-04	3.90E-04	1.50E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373369.50	3757072.16	1.00E-04	1.74E-03	4.99E-03	5.23E-03	3.59E-03	5.36E-03	4.20E-04	1.10E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
373370.37	3757159.75	1.10E-04	1.84E-03	8.04E-03	7.56E-03	5.56E-03	8.77E-03	4.80E-04	1.30E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
373370.71	3756204.86	5.80E-04	1.02E-03	1.35E-03	1.30E-03	7.50E-04	4.30E-04	1.70E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373371.24	3757247.34	1.10E-04	2.03E-03	1.32E-02	2.43E-02	2.74E-02	2.89E-02	5.60E-04	1.60E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373372.10	3756294.58	4.50E-04	9.70E-04	1.47E-03	1.41E-03	8.30E-04	4.80E-04	1.80E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373372.12	3757334.94	1.10E-04	2.31E-03	1.42E-02	3.51E-02	3.71E-02	3.41E-02	6.40E-04	1.90E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373372.99	3757422.53	1.10E-04	2.68E-03	2.04E-02	3.21E-02	2.31E-02	1.47E-02	7.20E-04	2.40E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
373373.72	3756378.86	3.60E-04	9.50E-04	1.60E-03	1.54E-03	9.20E-04	5.40E-04	2.00E-04	5.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373373.86	3757510.12	1.10E-04	3.08E-03	2.36E-02	3.87E-02	3.52E-02	2.30E-02	7.90E-04	2.90E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
373374.73	3757597.71	1.00E-04	3.40E-03	1.94E-02	4.52E-02	5.78E-02	4.77E-02	8.60E-04	3.30E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
373374.83	3756432.37	3.10E-04	9.50E-04	1.69E-03	1.63E-03	9.80E-04	5.80E-04	2.10E-04	5.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373375.60	3757685.31	1.00E-04	3.60E-03	1.67E-02	2.89E-02	3.58E-02	2.90E-02	9.10E-04	3.80E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
373393.43	3757684.85	1.10E-04	3.53E-03	1.61E-02	2.66E-02	3.27E-02	2.54E-02	8.90E-04	3.50E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
373394.30	3757744.19	9.00E-05	1.61E-03	1.39E-02	1.91E-02	2.40E-02	1.66E-02	9.20E-04	3.90E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
367047.63	3761097.01	1.00E-05	2.00E-04	3.40E-04	3.10E-04	1.80E-04	9.00E-05	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370737.54	3762942.92	0.00E+00	8.00E-05	1.70E-04	1.50E-04	9.00E-05	5.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371031.93	3758057.86	5.00E-05	1.97E-03	2.93E-03	2.03E-03	1.12E-03	5.60E-04	5.20E-04	2.00E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
371034.38	3758338.88	3.00E-05	1.12E-03	1.71E-03	1.26E-03	7.10E-04	3.60E-04	3.20E-04	1.20E-04	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
371091.65	3754274.94	3.00E-05	4.90E-04	8.70E-04	8.60E-04	4.50E-04	2.00E-04	1.60E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371165.78	3758547.83	3.00E-05	1.14E-03	1.32E-02	1.96E-02	5.80E-02	2.26E-02	2.20E-04	8.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372241.00	3757383.00	2.30E-04	1.18E-02	2.25E-02	7.51E-03	3.84E-03	2.00E-03	1.79E-03	1.23E-03	1.50E-04	2.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
372703.01	3761799.64	1.00E-05	1.30E-04	2.20E-04	1.70E-04	1.10E-04	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374794.97	3754806.86	1.00E-05	2.30E-04	4.80E-04	4.50E-04	2.60E-04	1.40E-04	6.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374697.43	3760305.50	1.00E-05	3.10E-04	5.10E-04	3.70E-04	2.30E-04	1.30E-04	8.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375423.74	3758805.14	4.00E-05	1.07E-03	1.95E-03	1.39E-03	9.90E-04	5.50E-04	2.90E-04	1.10E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
375433.42	3757541.59	5.00E-05	8.60E-04	1.68E-03	1.73E-03	1.12E-03	7.70E-04	2.40E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
378090.06	3758535.33	2.00E-05	5.20E-04	9.90E-04	8.20E-04	5.60E-04	3.20E-04	1.50E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368494.88	3756671.28	2.70E-04	3.99E-03	6.25E-03	5.93E-03	2.55E-03	1.06E-03	1.37E-03	1.70E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370394.80	3756845.73	1.36E-03	3.70E-02	6.67E-02	1.14E-01	8.37E-02	2.55E-02	1.34E-02	1.56E-03	1.30E-04	2.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
368983.23	3754581.57	5.00E-05	7.60E-04	1.34E-03	1.38E-03	6.90E-04	2.80E-04	2.70E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369216.41	3758422.45	3.00E-05	6.80E-04	1.20E-03	1.21E-03	7.20E-04	3.10E-04	2.10E-04	5.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369552.57	3755391.67	9.00E-05	1.52E-03	2.77E-03	2.73E-03	1.23E-03	4.80E-04	5.00E-04	8.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369574.04	3758166.39	4.00E-05	9.10E-04	1.60E-03	1.70E-03	1.10E-03	3.90E-04	2.60E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369581.37	3758516.07	3.00E-05	6.60E-04	1.14E-03	1.06E-03	5.80E-04	2.50E-04	1.80E-04	5.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
369830.08	3755394.84	9.00E-05	1.45E-03	2.61E-03	2.66E-03	1.34E-03	5.50E-04	5.70E-04	8.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370114.12	3758186.53	3.00E-05	9.40E-04	1.70E-03	1.60E-03	9.80E-04	4.30E-04	2.50E-04	7.00E-05	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
371021.69	3757820.60	8.00E-05	2.98E-03	4.29E-03	2.92E-03	1.56E-03	7.60E-04	7.70E-04	2.60E-04	1.00E-05	1.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
366809.77	3757837.27	5.00E-05	8.30E-04	1.36E-03	1.33E-03	6.70E-04	2.90E-04	2.70E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
366843.26	3757860.52	5.00E-05	8.20E-04	1.34E-03	1.32E-03	6.60E-04	2.90E-04	2.70E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
366900.00	3758500.00	3.00E-05	5.30E-04	9.00E-04	8.70E-04	4.50E-04	2.00E-04	1.70E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
366900.00	3762500.00	1.00E-05	1.20E-04	2.20E-04	2.10E-04	1.20E-04	6.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3763500.00	0.00E+00	9.00E-05	1.70E-04	1.50E-04	1.00E-04	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3764500.00	0.00E+00	7.00E-05	1.20E-04	1.10E-04	7.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757383.00	9.00E-05	1.99E-03	7.72E-03	1.07E-02	9.09E-03	9.66E-03	5.40E-04	1.70E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
373641.00	3757483.00	9.00E-05	2.26E-03	9.56E-03	1.22E-02	1.05E-02	8.02E-03	6.00E-04	2.10E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373641.00	3757583.00	9.00E-05	2.53E-03	1.06E-02	1.33E-02	1.27E-02	8.80E-03	6.70E-04	2.40E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373641.00	3757683.00	9.00E-05	2.75E-03	1.04E-02	1.26E-02	1.32E-02	9.23E-03	7.20E-04	2.80E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373641.00	3757783.00	8.00E-05	2.89E-03	9.38E-03	9.98E-03	1.06E-02	7.16E-03	7.60E-04	3.10E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373641.00	3757883.00	8.00E-05	2.94E-03	7.97E-03	7.05E-03	7.16E-03	4.40E-03	7.80E-04	3.20E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373641.00	3757983.00	7.00E-05	2.90E-03	6.64E-03	4.97E-03	4.61E-03	2.65E-03	7.70E-04	3.30E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373687.89	3757980.08	7.00E-05	2.81E-03	6.57E-03	5.06E-03	4.72E-03	2.75E-03	7.50E-04	3.10E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373900.00	3753500.00	1.00E-05	1.90E-04	3.80E-04	3.50E-04	2.00E-04	9.00E-05	6.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3754500.00	1.00E-05	2.40E-04	4.90E-04	4.60E-04	2.60E-04	1.30E-04	6.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373900.00	3755500.00	2.00E-05	3.20E-04	6.80E-04	7.00E-04	3.80E-04	2.00E-04	8.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373900.00	3756500.00	1.00E-05	6.80E-04	1.31E-03	1.30E-03	7.80E-04	4.70E-04	1.70E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373900.00	3757500.00	8.00E-05	1.90E-03	6.43E-03	7.40E-03	6.26E-03	4.67E-03	5.10E-04	1.70E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
373900.00	3758500.00	5.00E-05	1.76E-03	2.89E-03	1.83E-03	1.28E-03	7.20E-04	4.80E-04	1.90E-04	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
373900.00	3760500.00	1.00E-05	2.40E-04	4.50E-04	3.50E-04	2.20E-04	1.20E-04	7.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373900.00	3761500.00	1.00E-05	1.40E-04	2.40E-04	1.90E-04	1.20E-04	6.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3764500.00	0.00E+00	5.00E-05	8.00E-05	6.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3754500.00	1.00E-05	1.70E-04	3.50E-04	3.30E-04	1.90E-04	1.00E-04	5.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3755500.00	2.00E-05	2.89E-04	6.38E-04	6.40E-04	3.60E-04	1.90E-04	7.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374900.00	3756500.00	6.00E-05	4.40E-04	8.30E-04	8.10E-04	4.60E-04	2.50E-04	1.20E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374900.00	3757500.00	6.00E-05	1.06E-03	2.49E-03	2.37E-03	1.73E-03	1.14E-03	2.90E-04	9.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
374900.00	3759500.00	2.00E-05	6.20E-04	1.01E-03	7.10E-04	4.50E-04	2.40E-04	1.70E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374900.00	3760500.00	1.00E-05	2.70E-04	4.30E-04	3.10E-04	1.90E-04	1.00E-04	7.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374900.00	3761500.00	1.00E-05	1.20E-04	2.10E-04	1.70E-04	1.10E-04	6.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3762500.00	0.00E+00	6.00E-05	1.00E-04	8.00E-05	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3763500.00	0.00E+00	6.00E-05	1.00E-04	8.00E-05	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3764500.00	0.00E+00	7.00E-05	1.20E-04	9.00E-05	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3753500.00	1.00E-05	1.10E-04	2.30E-04	2.20E-04	1.30E-04	6.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3755500.00	1.00E-05	1.80E-04	3.60E-04	3.40E-04	2.00E-04	1.00E-04	5.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3756500.00	3.00E-05	3.30E-04	6.10E-04	5.80E-04	3.30E-04	1.70E-04	9.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375900.00	3760500.00	1.00E-05	3.10E-04	5.20E-04	3.90E-04	2.50E-04	1.30E-04	9.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375900.00	3761500.00	1.00E-05	1.40E-04	2.60E-04	2.10E-04	1.30E-04	6.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3762500.00	0.00E+00	1.10E-04	1.70E-04	1.40E-04	9.00E-05	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3763500.00	0.00E+00	7.00E-05	1.20E-04	8.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3764500.00	0.00E+00	7.00E-05	1.30E-04	1.10E-04	7.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376084.62	3761776.42	1.00E-05	1.40E-04	2.30E-04	1.70E-04	1.00E-04	5.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3755500.00	1.00E-05	1.40E-04	2.90E-04	2.70E-04	1.50E-04	8.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3756500.00	2.00E-05	2.60E-04	4.80E-04	4.50E-04	2.50E-04	1.30E-04	8.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3758500.00	3.00E-05	4.20E-04	8.20E-04	8.20E-04	4.70E-04	2.60E-04	1.20E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3759500.00	2.00E-05	5.80E-04	1.00E-03	7.30E-04	4.90E-04	2.70E-04	1.60E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3760500.00	1.00E-05	3.40E-04	5.70E-04	4.10E-04	2.60E-04	1.40E-04	1.00E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3761500.00	1.00E-05	1.90E-04	3.20E-04	2.50E-04	1.60E-04	9.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3762500.00	0.00E+00	1.20E-04	2

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Diesel Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
372541.00	3756983.00	1.90E-04	3.37E-03	6.67E-03	8.07E-03	9.52E-03	7.38E-03	7.10E-04	2.10E-04	7.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
372641.00	3756983.00	1.70E-04	3.21E-03	6.94E-03	8.21E-03	7.59E-03	7.43E-03	6.90E-04	2.00E-04	6.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
372341.00	3756983.00	1.10E-04	1.90E-03	4.73E-03	5.07E-03	3.23E-03	2.47E-03	4.30E-04	1.20E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
372341.00	3756983.00	1.00E-04	1.73E-03	4.15E-03	4.52E-03	2.91E-03	2.50E-03	4.00E-04	1.10E-04	3.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
372441.00	3756983.00	1.00E-04	1.67E-03	3.72E-03	4.17E-03	2.58E-03	2.33E-03	3.80E-04	1.00E-04	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
372441.00	3756783.00	1.00E-04	3.11E-03	1.68E-02	2.90E-02	3.29E-02	2.77E-02	8.00E-04	3.00E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
372441.00	3756683.00	1.00E-04	3.35E-03	1.46E-02	2.21E-02	2.64E-02	2.29E-02	8.50E-04	3.50E-04	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
372441.00	3756783.00	9.00E-05	3.44E-03	1.15E-02	1.26E-02	1.54E-02	1.03E-02	8.90E-04	3.80E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
372441.00	3756883.00	8.00E-05	3.44E-03	8.79E-03	6.89E-03	7.03E-03	3.96E-03	9.00E-04	3.90E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
372341.00	3756983.00	8.00E-05	3.33E-03	6.92E-03	4.60E-03	4.08E-03	2.25E-03	8.80E-04	3.90E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
372541.00	3756683.00	1.10E-04	1.81E-03	3.15E-03	3.59E-03	1.77E-02	1.82E-03	2.80E-04	1.10E-04	5.00E-05	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00
372541.00	3756083.00	1.00E-04	1.50E-03	3.86E-03	4.06E-03	2.67E-03	3.19E-03	3.80E-04	1.00E-04	3.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
372541.00	3757183.00	1.00E-04	1.65E-03	5.42E-03	5.99E-03	4.44E-03	6.54E-03	4.40E-04	1.20E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
372541.00	3757283.00	1.00E-04	1.87E-03	7.35E-03	1.10E-02	1.00E-02	1.82E-02	5.10E-04	1.50E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
372541.00	3757383.00	1.00E-04	2.14E-03	9.30E-03	1.43E-02	1.24E-02	1.66E-02	5.80E-04	1.80E-04	4.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
372541.00	3757483.00	1.00E-04	2.50E-03	1.24E-02	1.67E-02	1.42E-02	1.03E-02	6.60E-04	2.30E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
372541.00	3757583.00	1.00E-04	2.79E-03	1.32E-02	1.82E-02	1.86E-02	1.35E-02	7.30E-04	2.70E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
372541.00	3757683.00	1.00E-04	3.01E-03	1.51E-02	1.57E-02	1.77E-02	1.82E-02	7.80E-04	3.10E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
366455.27	3763213.67	0.00E+00	1.00E-04	1.90E-04	1.70E-04	1.10E-04	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366669.62	3763342.53	0.00E+00	1.00E-04	1.80E-04	1.60E-04	1.00E-04	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366671.31	3762769.21	1.00E-05	1.20E-04	2.10E-04	1.90E-04	1.20E-04	6.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367494.53	3758314.82	4.00E-05	6.80E-04	1.14E-03	1.10E-03	5.70E-04	2.50E-04	2.20E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367575.16	3764900.80	0.00E+00	7.00E-05	1.20E-04	1.10E-04	7.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367638.49	3757975.16	5.00E-05	9.00E-04	1.49E-03	1.48E-03	7.60E-04	3.30E-04	2.90E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367728.62	3761967.19	1.00E-04	1.70E-03	3.21E-03	3.18E-03	1.60E-03	6.60E-04	2.60E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367787.59	3758292.62	4.00E-05	7.30E-04	1.22E-03	1.16E-03	6.00E-04	2.60E-04	2.40E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367831.34	3763245.91	0.00E+00	9.00E-05	1.70E-04	1.60E-04	1.00E-04	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367900.00	3758500.00	3.00E-05	6.10E-04	1.03E-03	1.02E-03	5.60E-04	2.50E-04	1.90E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367926.08	3763311.16	0.00E+00	9.00E-05	1.70E-04	1.60E-04	1.00E-04	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367964.98	3758232.97	4.00E-05	7.90E-04	1.32E-03	1.26E-03	6.60E-04	2.90E-04	2.50E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
367976.37	3763336.74	0.00E+00	9.00E-05	1.45E-04	1.50E-04	1.00E-04	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367978.91	3758390.10	4.00E-05	6.80E-04	1.15E-03	1.12E-03	6.10E-04	2.70E-04	2.20E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368188.78	3758591.47	3.00E-05	6.20E-04	1.06E-03	1.03E-03	5.50E-04	2.40E-04	1.90E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368501.11	3761632.38	1.00E-04	1.40E-04	2.70E-04	2.50E-04	1.50E-04	8.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368505.49	3758571.22	4.00E-05	6.50E-04	1.11E-03	1.06E-03	5.50E-04	2.40E-04	2.10E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368673.29	3761677.69	1.00E-04	1.40E-04	2.70E-04	2.50E-04	1.50E-04	8.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368693.42	3758559.47	4.00E-05	8.20E-04	1.39E-03	1.34E-03	7.10E-04	3.10E-04	2.60E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368842.52	3761590.39	1.00E-04	1.50E-04	2.80E-04	2.50E-04	1.60E-04	8.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368869.11	3754097.89	3.00E-05	5.30E-04	9.60E-04	9.60E-04	4.70E-04	2.00E-04	1.70E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
368869.83	3765067.00	0.00E+00	6.00E-05	1.20E-04	1.10E-04	7.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368969.99	3761647.20	1.00E-04	1.40E-04	2.70E-04	2.50E-04	1.50E-04	8.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368970.54	3754677.64	5.00E-05	8.20E-04	1.45E-03	1.49E-03	7.40E-04	3.10E-04	3.00E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369007.11	3762513.11	0.00E+00	1.10E-04	2.10E-04	1.90E-04	1.20E-04	6.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369227.39	3762251.91	1.00E-05	1.20E-04	2.30E-04	2.10E-04	1.30E-04	6.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369342.37	3754695.62	5.00E-05	8.50E-04	1.45E-03	1.48E-03	7.30E-04	3.00E-04	2.90E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369456.98	3762567.48	0.00E+00	1.10E-04	2.10E-04	1.90E-04	1.20E-04	6.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369504.04	3754702.08	5.00E-05	8.20E-04	1.46E-03	1.48E-03	7.40E-04	3.10E-04	2.90E-04	5.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369767.91	3761750.98	1.00E-04	1.60E-04	3.20E-04	2.90E-04	1.90E-04	9.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369809.34	3764567.65	0.00E+00	6.00E-05	1.30E-04	1.20E-04	7.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369845.18	3754154.97	3.00E-05	4.70E-04	8.80E-04	9.20E-04	5.00E-04	2.10E-04	1.80E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369848.41	3753976.49	3.00E-05	4.80E-04	8.70E-04	8.70E-04	4.60E-04	2.00E-04	1.60E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370097.88	3760014.31	1.00E-05	2.30E-04	4.30E-04	3.90E-04	2.60E-04	1.30E-04	7.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370150.95	3754699.75	4.00E-05	6.70E-04	1.26E-03	1.33E-03	7.10E-04	3.00E-04	2.30E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370192.96	3758860.70	2.00E-05	5.40E-04	8.90E-04	7.40E-04	4.60E-04	2.20E-04	1.50E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370243.17	3759622.98	1.00E-05	2.70E-04	5.20E-04	4.50E-04	2.90E-04	1.40E-04	8.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370246.20	3754243.12	3.00E-05	4.90E-04	9.30E-04	9.60E-04	5.10E-04	2.10E-04	1.60E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370290.74	3759464.60	1.00E-05	3.00E-04	5.60E-04	4.80E-04	3.00E-04	1.50E-04	8.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370608.78	3762239.97	0.00E+00	1.00E-04	2.10E-04	1.80E-04	1.20E-04	6.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370614.80	3762181.53	0.00E+00	1.00E-04	2.10E-04	1.90E-04	1.20E-04	6.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370625.96	3763759.08	0.00E+00	7.00E-05	1.40E-04	1.30E-04	8.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370723.56	3763867.78	0.00E+00	7.00E-05	1.40E-04	1.20E-04	8.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370968.58	3759443.63	1.00E-05	3.00E-04	5.40E-04	4.60E-04	3.00E-04	1.60E-04	8.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371139.14	3758179.30	4.00E-05	1.59E-03	2.38E-03	1.71E-03	9.70E-04	4.90E-04	4.60E-04	1.80E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
371516.05	3762577.75	0.00E+00	1.00E-04	1.90E-04	1.60E-04	1.00E-04	5.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371721.40	3759371.61	2.00E-05	4.50E-04	8.00E-04	6.40E-04	4.00E-04	2.00E-04	1.10E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371973.81	3758892.65	2.00E-05	7.70E-04	1.31E-03	9.70E-04	6.10E-04	3.20E-04	2.00E-04	8.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372687.72	3759513.01	2.00E-05	4.70E-04	8.30E-04	6.10E-04	3.70E-04	1.90E-04	1.20E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
372943.49	3761051.66	1.00E-05	1.80E-04	3.20E-04	2.40E-04	1.50E-04	8.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373546.52	3760907.48	1.00E-05	2.00E-04	3.50E-04	2.80E-04	1.70E-04	9.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373736.60	3756503.93	1.60E-04	7.50E-04	1.45E-03	1.44E-03	8.80E-04	5.30E-04	1.90E-04	5.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_PM10_Annual.xlsx

PM10 Annual Summary by Source

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Diesel Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
373758.20	3758043.23	7.00E-05	2.64E-03	5.78E-03	4.26E-03	3.79E-03	2.18E-03	7.10E-04	2.90E-04	4.00E-05	1.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00
373781.58	3755802.14	6.00E-05	4.10E-04	8.30E-04	9.00E-04	4.70E-04	2.60E-04	1.00E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373814.20	3756040.57	1.20E-04	5.10E-04	9.60E-04	9.80E-04	5.50E-04	3.10E-04	1.20E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373990.06	3753826.14	1.00E-05	2.00E-04	4.10E-04	3.80E-04	2.10E-04	1.00E-04	6.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374057.73	3758196.54	6.00E-05	2.10E-03	4.26E-03	3.07E-03	2.53E-03	1.45E-03	5.70E-04	2.30E-04	3.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
374270.95	3758673.42	4.00E-05	1.39E-03	2.32E-03	1.52E-03	1.05E-03	5.80E-04	3.80E-04	1.50E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
374561.05	3757642.94	6.00E-05	1.41E-03	3.65E-03	3.56E-03	2.85E-03	1.90E-03	3.90E-04	1.30E-04	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
374688.84	3758984.90	3.00E-05	1.02E-03	1.67E-03	1.13E-03	7.50E-04	4.10E-04	2.80E-04	1.10E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
374693.96	3758983.17	3.00E-05	1.02E-03	1.68E-03	1.13E-03	7.50E-04	4.10E-04	2.80E-04	1.10E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
374717.46	3762574.39	0.00E+00	6.00E-05	1.10E-04	9.00E-05	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375503.80	3764537.77	0.00E+00	6.00E-05	1.20E-04	1.00E-04	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375614.97	3760655.10	1.00E-05	2.70E-04	4.60E-04	3.40E-04	2.20E-04	1.10E-04	8.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375718.04	3758204.95	4.00E-05	1.05E-03	2.25E-03	1.87E-03	1.41E-03	8.40E-04	2.90E-04	1.00E-04	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
375902.79	3764940.52	0.00E+00	6.00E-05	1.20E-04	1.00E-04	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375908.38	3763938.71	0.00E+00	7.00E-05	1.30E-04	1.10E-04	7.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375920.60	3762083.39	0.00E+00	1.20E-04	1.90E-04	1.40E-04	9.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376709.15	3756388.48	2.00E-05	2.50E-04	4.70E-04	4.40E-04	2.50E-04	1.20E-04	7.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
376814.39	3754856.21	1.00E-05	2.40E-04	4.20E-04	3.30E-04	2.00E-04	1.00E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377050.15	3761774.29	1.00E-05	1.70E-04	2.90E-04	2.20E-04	1.40E-04	8.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377052.34	3761911.90	1.00E-05	1.50E-04	2.70E-04	2.10E-04	1.30E-04	7.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377227.14	3756422.42	2.00E-05	2.30E-04	4.20E-04	3.90E-04	2.20E-04	1.10E-04	7.00E-05	2.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377237.88	3763993.21	0.00E+00	9.00E-05	1.50E-04	1.20E-04	7.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377313.01	3765265.13	2.00E-05	2.00E-04	3.70E-04	3.50E-04	1.90E-04	1.00E-04	6.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377330.56	3760754.60	1.00E-05	3.10E-04	5.10E-04	3.70E-04	2.40E-04	1.30E-04	9.00E-05	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377342.37	3764027.27	0.00E+00	6.00E-05	1.20E-04	1.00E-04	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377388.19	3762578.39	1.00E-05	1.30E-04	2.20E-04	1.70E-04	1.10E-04	6.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377563.47	3760340.44	1.00E-05	3.90E-04	6.60E-04	4.80E-04	3.10E-04	1.70E-04	1.10E-04	4.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377753.42	3759272.76	2.00E-05	5.70E-04	1.06E-03	8.20E-04	5.60E-04	3.10E-04	1.60E-04	6.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
377839.66	3764649.02	0.00E+00	7.00E-05	1.30E-04	1.00E-04	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377841.65	3762246.94	1.00E-05	1.50E-04	2.60E-04	2.00E-04	1.30E-04	7.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377908.39	3762502.03	1.00E-05	1.30E-04	2.60E-04	1.80E-04	1.20E-04	6.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377916.00	3755241.12	1.00E-05	1.10E-04	2.20E-04	2.00E-04	1.20E-04	6.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377924.86	3763642.88	0.00E+00	9.00E-05	1.60E-04	1.20E-04	8.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377967.05	3762224.48	1.00E-05	1.50E-04	2.60E-04	2.00E-04	1.30E-04	7.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378003.52	3753139.05	0.00E+00	7.00E-05	1.50E-04	1.30E-04	8.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378022.11	3755897.25	1.00E-05	1.30E-04	2.40E-04	2.30E-04	1.30E-04	6.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378066.59	3761432.90	1.00E-05	2.30E-04	3.80E-04	2.80E-04	1.80E-04	1.00E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
378209.66	3764122.39	0.00E+00	6.00E-05	1.10E-04	9.00E-05	6.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378212.33	3753511.52

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Diesel Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
378900.00	3761500.00	1.00E-05	2.30E-04	3.90E-04	2.90E-04	1.80E-04	1.00E-04	7.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
379900.00	3753500.00	0.00E+00	6.00E-05	1.10E-04	1.10E-04	6.00E-05	3.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379900.00	3758500.00	2.00E-05	3.60E-04	6.70E-04	5.60E-04	3.70E-04	2.10E-04	1.00E-04	3.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
380900.00	3764500.00	0.00E+00	8.00E-05	1.40E-04	1.10E-04	7.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3753500.00	0.00E+00	4.00E-05	8.00E-05	7.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3758500.00	1.00E-05	2.50E-04	4.50E-04	3.80E-04	2.50E-04	1.40E-04	7.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
383900.00	3758500.00	1.00E-05	1.80E-04	3.30E-04	2.80E-04	1.80E-04	1.00E-04	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3759500.00	1.00E-05	2.20E-04	4.00E-04	3.20E-04	2.10E-04	1.20E-04	6.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
383900.00	3760500.00	1.00E-05	2.30E-04	4.10E-04	3.30E-04	2.20E-04	1.20E-04	7.00E-05	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
383900.00	3761500.00	1.00E-05	2.20E-04	3.80E-04	3.00E-04	2.00E-04	1.10E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
384985.00	3755395.00	1.00E-04	1.58E-03	2.55E-03	2.45E-03	1.51E-03	6.00E-04	5.70E-04	2.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
384985.00	3757395.00	1.10E-04	1.73E-03	2.80E-03	2.73E-03	1.29E-03	5.40E-04	6.20E-04	9.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
384985.00	3759395.00	1.10E-04	1.72E-03	2.76E-03	2.68E-03	1.24E-03	5.20E-04	6.40E-04	9.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
384985.00	3759395.00	1.10E-04	1.77E-03	2.84E-03	2.77E-03	1.29E-03	5.40E-04	6.60E-04	9.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
384985.00	3759395.00	1.20E-04	1.81E-03	2.91E-03	2.86E-03	1.33E-03	5.50E-04	6.90E-04	1.00E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
384985.00	3759395.00	1.20E-04	1.84E-03	2.98E-03	2.94E-03	1.38E-03	5.70E-04	7.10E-04	1.00E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
384985.00	3759395.00	1.20E-04	1.87E-03	3.04E-03	3.02E-03	1.43E-03	5.90E-04	7.30E-04	1.00E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
384985.00	3759395.00	1.10E-04	1.86E-03	3.01E-03	2.99E-03	1.41E-03	6.00E-04	7.40E-04	1.00E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
384985.00	3759395.00	1.10E-04	1.83E-03	3.03E-03	3.06E-03	1.48E-03	6.00E-04	7.40E-04	1.00E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
384985.00	3759395.00	1.10E-04	1.78E-03	2.97E-03	3.03E-03	1.48E-03	6.00E-04	7.30E-04	1.00E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
384985.00	3759395.00	1.10E-04	1.72E-03	2.91E-03	3.00E-03	1.48E-03	5.90E-04	7.10E-04	1.00E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
384985.00	3759395.00	1.00E-04	1.66E-03	2.84E-03	2.95E-03	1.46E-03	5.80E-04	6.80E-04	1.00E-04	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
384985.00	3759395.00	1.00E-04	1.61E-03	2.79E-03	2.90E-03	1.43E-03	5.70E-04	6.40E-04	9.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
384985.00	3759395.00	9.00E-05	1.53E-03	2.77E-03	2.83E-03	1.36E-03	5.30E-04	5.60E-04	9.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
384985.00	3759395.00	9.00E-05	1.51E-03	2.76E-03	2.75E-03	1.25E-03	4.90E-04	5.10E-04	8.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
384985.00	3759395.00	9.00E-05	1.54E-03	2.80E-03	2.76E-03	1.24E-03	4.90E-04	5.20E-04	8.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
384985.00	3759395.00	1.00E-04	1.55E-03	2.79E-03	2.78E-03	1.30E-03	5.30E-04	5.60E-04	8.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
384985.00	3759395.00	9.00E-05	1.49E-03	2.68E-03	2.71E-03	1.33E-03	5.50E-04	5.70E-04	9.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
384985.00	3759395.00	8.00E-05	1.39E-03	2.52E-03	2.62E-03	1.35E-03	5.50E-04	5.60E-04	8.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
384985.00	3759395.00	8.00E-05	1.34E-03	2.44E-03	2.57E-03	1.36E-03	5.50E-04	5.20E-04	8.00E-05	1.00E-05	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370985.00	3759395.00	7.00E-05	1.27E-03	2.34E-03	2.49E-03	1.33E-03	5.40E-04	4.80E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370185.00	3759395.00	7.00E-05	1.24E-03	2.31E-03	2.45E-03	1.30E-03	5.20E-04	4.40E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370285.00	3759395.00	7.00E-05	1.21E-03	2.29E-03	2.42E-03	1.26E-03	5.10E-04	4.20E-04	7.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370377.81	3753513.33	6.00E-05	1.10E-03	2.10E-03	2.20E-03	1.12E-03	4.60E-04	3.80E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370477.81	3753513.33	6.00E-05	1.11E-03	2.11E-03	2.18E-03	1.10E-03	4.50E-04	3.80E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370577.81	3753513.33	6.00E-05	1.08E-03	2.06E-03	2.12E-03	1.08E-03	4.50E-04	3.70E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370677.81	3753513.33	6.00E-05	1.03E-03	1.93E-03	1.95E-03	9.90E-04	4.20E-04	3.60E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370777.81	3753513.33	6.00E-05	1.00E-03	1.85E-03	1.82E-03	9.70E-04	4.20E-04	3.50E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370877.81	3753513.33	6.00E-05	9.70E-04	1.78E-03	1.82E-03	9.70E-04	4.20E-04	3.40E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
370977.81	3753513.33	6.00E-05	9.50E-04	1.82E-03	1.86E-03	1.01E-03	4.20E-04	3.20E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371077.81	3753513.33	5.00E-05	9.10E-04	1.75E-03	1.80E-03	9.80E-04	4.10E-04	3.00E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371177.81	3753513.33	5.00E-05	8.70E-04	1.68E-03	1.73E-03	9.40E-04	4.00E-04	2.80E-04	6.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371277.81	3753513.33	5.00E-05	8.40E-04	1.62E-03	1.67E-03	9.00E-04	3.80E-04	2.60E-04	5.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371377.81	3753513.33	5.00E-05	8.10E-04	1.57E-03	1.60E-03	8.60E-04	3.60E-04	2.40E-04	5.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371477.81	3753513.33	5.00E-05	7.80E-04	1.52E-03	1.63E-03	8.10E-04	3.40E-04	2.30E-04	5.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371577.81	3753513.33	5.00E-05	7.50E-04	1.47E-03	1.47E-03	7.70E-04	3.30E-04	2.20E-04	5.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371677.81	3753513.33	5.00E-05	7.30E-04	1.42E-03	1.41E-03	7.40E-04	3.10E-04	2.10E-04	5.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371777.81	3753513.33	5.00E-05	7.00E-04	1.37E-03	1.35E-03	7.00E-04	3.00E-04	2.00E-04	5.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371871.62	3752532.57	4.00E-05	6.50E-04	1.26E-03	1.24E-03	6.50E-04	2.80E-04	1.80E-04	4.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
371971.62	3752532.57	4.00E-05	6.20E-04	1.22E-03	1.19E-03	6.30E-04	2.80E-04	1.80E-04	4.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372071.62	3752532.57	4.00E-05	6.00E-04	1.16E-03	1.14E-03	6.00E-04	2.70E-04	1.70E-04	4.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372171.62	3752532.57	4.00E-05	5.80E-04	1.14E-03	1.12E-03	5.90E-04	2.70E-04	1.60E-04	4.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372271.62	3752532.57	4.00E-05	5.60E-04	1.10E-03	1.09E-03	5.80E-04	2.60E-04	1.50E-04	4.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372371.62	3752532.57	4.00E-05	5.40E-04	1.07E-03	1.07E-03	5.60E-04	2.60E-04	1.50E-04	4.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372471.62	3752532.57	4.00E-05	5.20E-04	1.03E-03	1.05E-03	5.50E-04	2.60E-04	1.40E-04	4.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372571.62	3752532.57	4.00E-05	5.00E-04	9.90E-04	1.04E-03	5.30E-04	2.50E-04	1.30E-04	4.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372671.62	3752532.57	4.00E-05	4.80E-04	9.60E-04	1.05E-03	5.10E-04	2.50E-04	1.30E-04	3.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372771.62	3752532.57	4.00E-05	4.60E-04	9.20E-04	1.08E-03	4.90E-04	2.40E-04	1.20E-04	3.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372871.62	3752532.57	3.00E-05	4.40E-04	8.90E-04	1.11E-03	4.70E-04	2.40E-04	1.10E-04	3.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372971.62	3752532.57	3.00E-05	4.20E-04	8.50E-04	1.05E-03	4.50E-04	2.30E-04	1.10E-04	3.00E-05	1.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Fugitive Dust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, with Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
369131.40	3758945.42	3.00E-04	2.74E-03	3.68E-03	3.11E-03	2.57E-03	1.11E-03	8.50E-04	2.70E-04	2.20E-04	2.00E-05	2.20E-04	0.00E+00	0.00E+00	0.00E+00
370190.78	3758848.26	2.10E-04	3.82E-03	4.42E-03	3.77E-03	3.64E-03	1.67E-03	9.80E-04	4.80E-04	2.90E-04	3.00E-05	2.90E-04	0.00E+00	0.00E+00	0.00E+00
370747.03	3763937.58	3.00E-05	4.30E-04	6.20E-04	5.70E-04	5.50E-04	2.90E-04	1.00E-04	6.00E-05	4.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
370757.72	3755124.52	7.10E-04	4.10E-03	6.57E-03	6.20E-03	5.15E-03	2.04E-03	1.85E-03	3.60E-04	2.90E-04	3.00E-05	2.90E-04	0.00E+00	0.00E+00	0.00E+00
370946.70	3758260.69	4.50E-04	8.88E-03	9.12E-03	6.87E-03	6.10E-03	2.95E-03	2.25E-03	1.18E-03	7.70E-04	7.00E-05	7.80E-04	0.00E+00	0.00E+00	0.00E+00
371368.79	3754218.82	3.50E-04	2.33E-03	3.46E-03	3.30E-03	2.67E-03	1.08E-03	9.10E-04	2.20E-04	1.70E-04	2.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
371786.04	3754168.42	2.70E-04	2.03E-03	3.27E-03	3.15E-03	2.60E-03	1.12E-03	7.80E-04	2.10E-04	1.60E-04	2.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
373756.25	3761779.11	8.00E-05	7.70E-04	9.20E-04	7.30E-04	6.90E-04	4.20E-04	2.20E-04	1.00E-04	4.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
367734.03	3758536.57	3.90E-04	2.69E-03	3.65E-03	3.40E-03	3.11E-03	1.20E-03	1.13E-03	2.40E-04	1.40E-04	1.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
368069.11	3760165.13	1.60E-04	1.55E-03	2.06E-03	1.80E-03	1.62E-03	7.30E-04	4.90E-04	1.60E-04	1.00E-04	1.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
369125.38	3763906.25	6.00E-05	5.98E-04	8.20E-04	7.83E-04	3.70E-04	1.80E-04	7.00E-05	5.00E-05	5.00E-05	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00
369225.45	3764227.42	4.00E-05	4.50E-04	6.40E-04	5.90E-04	5.70E-04	2.90E-04	1.40E-04	5.00E-05	4.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
370236.75	3761140.30	7.00E-05	9.60E-04	1.41E-03	1.31E-03	1.25E-03	6.30E-04	2.40E-04	1.20E-04	9.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
372218.41	3759157.53	2.70E-04	3.99E-03	4.62E-03	3.47E-03	3.33E-03	1.85E-03	1.00E-03	5.40E-04	2.40E-04	2.00E-05	2.50E-04	0.00E+00	0.00E+00	0.00E+00
372267.44	3762986.25	3.00E-05	4.20E-04	4.90E-04	4.00E-04	3.90E-04	2.30E-04	1.20E-04	6.00E-05	4.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
374498.14	3758643.27	5.50E-04	1.00E-02	1.02E-02	7.16E-03	6.82E-03	4.18E-03	2.39E-03	1.21E-03	4.70E-04	5.00E-05	4.80E-04	0.00E+00	0.00E+00	0.00E+00
375472.61	3759680.03	2.40E-04	3.61E-03	3.80E-03	2.77E-03	2.53E-03	1.57E-03	9.40E-04	4.30E-04	2.30E-04	2.00E-05	2.30E-04	0.00E+00	0.00E+00	0.00E+00
375514.38	3757500.61	7.40E-04	8.24E-03	8.24E-03	7.35E-03	7.26E-03	3.70E-03	1.54E-03	5.80E-04	3.60E-04	3.00E-05	3.70E-04	0.00E+00	0.00E+00	0.00E+00
377395.41	3759189.37	3.30E-04	4.31E-03	5.29E-03	4.18E-03	3.93E-03	2.51E-03	1.17E-03	5.40E-04	2.90E-04	3.00E-05	2.90E-04	0.00E+00	0.00E+00	0.00E+00
366363.62	3757753.10	6.20E-04	3.32E-03	4.76E-03	4.16E-03	3.26E-03	1.17E-03	1.66E-03	2.60E-04	1.20E-04	1.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
369385.71	3758351.85	4.50E-04	4.10E-03	5.74E-03	5.35E-03	4.85E-03	1.86E-03	1.30E-03	3.80E-04	3.50E-04	3.00E-05	3.50E-04	0.00E+00	0.00E+00	0.00E+00
369388.19	3758584.61	3.80E-04	3.44E-03	4.80E-03	4.26E-03	3.64E-03	1.47E-03	1.11E-03	3.40E-04	3.00E-04	3.00E-05	3.00E-04	0.00E+00	0.00E+00	0.00E+00
371727.30	3758286.14	5.40E-04	1.17E-02	1.21E-02	8.12E-03	6.96E-03	3.75E-03	2.61E-03	1.69E-03	6.40E-04	6.00E-05	6.40E-04	0.00E+00	0.00E+00	0.00E+00
371973.18	3757657.97	1.72E-03	4.00E-03	1.73E-03	3.55E-03	2.33E-03	4.73E-03	1.12E-01	1.93E-01	3.27E-03	3.10E-04	3.31E-03	0.00E+00	0.00E+00	0.00E+00
372028.59	3757658.28	1.74E-03	4.04E-03	1.74E-03	3.58E-03	2.35E-03	4.77E-03	1.91E-01	9.01E-02	3.29E-03	3.12E-04	3.33E-03	0.00E+00	0.00E+00	0.00E+00
372057.72	3757303.44	4.46E-03	6.39E-02	6.88E-02	5.11E-02	3.52E-02	1.80E-02	1.38E-02	3.77E-02	4.41E-03	4.20E-04	4.47E-03	0.00E+00	0.00E+00	0.00E+00
372058.94	3757365.68	3.66E-03	1.24E-01	1.05E-01	4.36E-02	3.17E-02	1.73E-02	1.53E-02	3.98E-02	4.49E-03	4.30E-04	4.55E-03	0.00E+00	0.00E+00	0.00E+00
372114.76	3757419.38	3.13E-03	2.99E-01	2.57E-01	3.84E-02	2.86E-02	1.67E-02	1.61E-02	2.96E-02	4.15E-03	4.00E-04	4.20E-03	0.00E+00	0.00E+00	0.00E+00
372149.51	3757302.81	4.32E-03	5.46E-02	6.81E-02	4.89E-02	3.42E-02	1.76E-02	1.10E-02	2.07E-02	3.86E-03	3.70E-04	3.91E-03	0.00E+00	0.00E+00	0.00E+00
366675.72	3757743.67	6.80E-04	3.66E-03	5.26E-03	4.61E-03	3.64E-03	1.30E-03	1.81E-03	2.80E-04	1.30E-04	1.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
367105.41	3757963.83	5.60E-04	3.48E-03	5.07E-03	4.20E-03	3.56E-03	1.34E-03	1.54E-03	2.80E-04	1.40E-04	1.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
367221.30	3757911.68	6.10E-04	3.69E-03	5.34E-03	4.69E-03	3.85E-03	1.41E-03	1.65E-03	2.90E-04	1.40E-04	1.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
367346.43	3757955.57	5.80E-04	3.64E-03	5.25E-03	4.61E-03	3.81E-03	1.41E-03	1.58E-03	2.90E-04	1.50E-04	1.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
367457.41	3758010.28	5.40E-04	3.56E-03	5.10E-03	4.47E-03	3.71E-03	1.39E-03	1.51E-03	2.90E-04	1.50E-04	1.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
367730.93	3758222.91	5.50E-04	3.51E-03	4.79E-03	4.13E-03	3.33E-03	1.30E-03	1.54E-03	3.10E-04	1.50E-04	1.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
367995.30	3758074.68	6.70E-04	4.20E-03	5.76E-03	4.91E-03	3.87E-03	1.50E-03	1.87E-03	3.70E-04	1.70E-04	2.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
369154.15	3758166.98	6.00E-04	4.84E-03	6.72E-03	6.35E-03	5.94E-03	2.19E-03	1.90E-03	4.50E-04	3.20E-04	3.00E-05	3.20E-04	0.00E+00	0.00E+00	0.00E+00
369274.54	3758209.64	5.60E-04	3.48E-03	5.07E-03	4.20E-03	3.56E-03	2.19E-03	1.71E-03	4.30E-04	3.30E-04	3.00E-05	3.40E-04	0.00E+00	0.00E+00	0.00E+00
369279.67	3758015.34	6.80E-04	5.73E-03	8.04E-03	7.55E-03	7.10E-03	2.59E-03	2.23E-03	5.30E-04	3.60E-04	3.00E-05	3.70E-04	0.00E+00	0.00E+00	0.00E+00
369788.09	3758340.35	5.10E-04	4.79E-03	6.60E-03	6.00E-03	5.35E-03	2.09E-03	1.48E-03	4.70E-04	4.30E-04	4.00E-05	4.40E-04	0.00E+00	0.00E+00	0.00E+00
369790.55	3758580.31	3.90E-04	4.08E-03	5.34E-03	4.69E-03	4.23E-03	1.73E-03	1.24E-03	4.30E-04	3.40E-04	3.00E-05	3.40E-04	0.00E+00	0.00E+00	0.00E+00
371537.21	3756959.02	5.91E-02	9.37E-02	7.05E-02	8.45E-02	1.22E-01	3.93E-02	1.24E-02	4.52E-03	7.24E-03	6.90E-04	7.34E-03	0.00E+00	0.00E+00	0.00E+00
371736.26	3757371.88	3.34E-03	1.95E-01	1.20E-01	3.71E-02	2.72E-02	1.76E-02	2.97E-02	2.07E-02	7.29E-03	7.00E-04	7.38E-03	0.00E+00	0.00E+00	0.00E+00
371795.72	3757393.54	3.19E-03	3.71E-01	1.56E-01	3.62E-02	2.69E-02	1.97E-02	3.43E-02	2.92E-02	6.52E-03	6.20E-04	6.61E-03	0.00E+00	0.00E+00	0.00E+00
371925.67	3757658.96	1.69E-03	3.43E-01	1.37E-01	4.26E-02	4.89E-02	1.24E-02	1.57E-01	3.33E-03	3.20E-04	2.00E-05	3.37E-03	0.00E+00	0.00E+00	0.00E+00
367720.95	3757929.47	6.20E-04	4.01E-03	5.77E-03	5.07E-03	4.21E-03	1.56E-03	1.71E-03	3.30E-04	1.70E-04	2.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
366410.42	3757645.39	6.70E-04	3.48E-03	4.98E-03	4.36E-03	3.40E-03	1.20E-03	1.77E-03	2.70E-04	1.20E-04	1.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
366412.06	3757743.84	6.40E-04	3.39E-03	4.86E-03	4.25E-03	3.33E-03	1.19E-03	1.69E-03	2.60E-04	1.20E-04	1.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
366449.10	3757556.84	7.10E-04	3.59E-03	5.14E-03

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Fugitive Dust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
370966.07	3757852.69	8.70E-04	1.75E-02	1.76E-02	1.17E-02	1.02E-02	4.57E-03	4.16E-03	1.81E-03	1.85E-03	1.80E-04	1.88E-03	0.00E+00	0.00E+00	0.00E+00
370968.09	3757808.70	9.30E-04	1.87E-02	1.90E-02	1.25E-02	1.08E-02	4.85E-03	4.63E-03	1.94E-03	2.12E-03	2.00E-04	2.15E-03	0.00E+00	0.00E+00	0.00E+00
370983.75	3757705.22	9.40E-04	6.33E-03	1.08E-02	1.07E-02	8.92E-03	3.41E-03	2.47E-03	1.50E-04	5.90E-04	6.00E-05	6.00E-04	0.00E+00	0.00E+00	0.00E+00
370986.42	3757628.02	8.70E-04	5.88E-03	9.87E-03	9.82E-03	8.27E-03	3.19E-03	2.35E-03	5.20E-04	5.30E-04	5.00E-05	5.40E-04	0.00E+00	0.00E+00	0.00E+00
370989.10	3757550.81	8.20E-04	5.50E-03	9.12E-03	9.06E-03	7.66E-03	2.98E-03	2.26E-03	5.00E-04	4.90E-04	5.00E-05	4.90E-04	0.00E+00	0.00E+00	0.00E+00
370991.77	3757473.61	7.90E-04	5.20E-03	8.48E-03	8.39E-03	7.10E-03	2.78E-03	2.19E-03	4.90E-04	4.50E-04	4.00E-05	4.50E-04	0.00E+00	0.00E+00	0.00E+00
371017.44	3757371.98	3.06E-03	7.66E-02	6.29E-02	5.03E-02	3.85E-02	1.97E-02	8.75E-02	6.42E-03	1.05E-01	1.01E-02	1.07E-01	0.00E+00	0.00E+00	0.00E+00
371039.92	3757778.95	9.80E-04	2.19E-02	2.14E-02	1.32E-02	1.14E-02	5.23E-03	5.36E-03	2.26E-03	2.40E-03	2.30E-04	2.43E-03	0.00E+00	0.00E+00	0.00E+00
371061.56	3756965.39	1.25E-02	1.32E-01	2.24E-01	2.28E-01	1.14E-01	2.68E-02	2.93E-02	7.70E-03	7.37E-02	7.05E-03	7.47E-02	0.00E+00	0.00E+00	0.00E+00
371064.57	3755405.04	7.20E-04	4.89E-03	7.88E-03	7.73E-03	6.54E-03	2.58E-03	1.99E-03	4.70E-04	4.20E-04	4.00E-05	4.30E-04	0.00E+00	0.00E+00	0.00E+00
371078.64	3757842.57	8.80E-04	2.12E-02	1.97E-02	1.22E-02	1.05E-02	4.86E-03	4.21E-03	1.89E-03	1.95E-03	1.90E-04	1.98E-03	0.00E+00	0.00E+00	0.00E+00
371116.65	3757378.24	3.01E-03	6.91E-02	1.01E-01	4.96E-02	3.81E-02	1.97E-02	6.42E-02	6.81E-03	4.61E-02	4.40E-03	4.67E-02	0.00E+00	0.00E+00	0.00E+00
371117.35	3757906.19	8.10E-04	2.02E-02	1.81E-02	1.10E-02	9.66E-03	4.65E-03	4.52E-03	2.18E-03	1.62E-03	1.50E-04	1.64E-03	0.00E+00	0.00E+00	0.00E+00
371160.25	3755403.96	6.80E-04	4.84E-03	7.80E-03	7.56E-03	6.32E-03	2.52E-03	1.81E-03	4.70E-04	4.20E-04	4.00E-05	4.20E-04	0.00E+00	0.00E+00	0.00E+00
371160.00	3756963.88	2.33E-02	9.05E-02	2.07E-01	3.20E-01	1.89E-01	2.35E-02	2.52E-02	6.95E-03	3.14E-02	3.00E-03	3.18E-02	0.00E+00	0.00E+00	0.00E+00
371173.76	3757954.26	7.60E-04	1.93E-02	1.70E-02	1.04E-02	9.14E-03	4.58E-03	4.56E-03	2.30E-03	1.40E-03	1.30E-04	1.42E-03	0.00E+00	0.00E+00	0.00E+00
371174.47	3757986.09	7.30E-04	1.77E-02	1.58E-02	9.98E-03	8.79E-03	4.42E-03	4.34E-03	2.22E-03	1.30E-03	1.20E-04	1.32E-03	0.00E+00	0.00E+00	0.00E+00
371208.04	3757297.08	3.30E-04	1.27E-03	4.52E-03	5.20E-03	1.38E-02	2.22E-02	4.89E-03	3.01E-02	2.88E-03	1.05E-02	2.98E-03	0.00E+00	0.00E+00	0.00E+00
371268.86	3757379.92	3.04E-03	1.15E-01	1.35E-01	5.57E-02	4.22E-02	2.32E-02	4.87E-02	8.54E-03	2.60E-02	2.49E-03	2.63E-02	0.00E+00	0.00E+00	0.00E+00
371210.97	3757210.00	5.35E-03	8.95E-02	7.27E-02	5.46E-02	4.31E-02	1.49E-02	1.83E-02	4.76E-03	3.41E-02	3.26E-03	3.45E-02	0.00E+00	0.00E+00	0.00E+00
371243.87	3757985.25	7.50E-04	1.88E-02	1.63E-02	1.01E-02	8.86E-03	4.60E-03	4.68E-03	2.48E-03	1.26E-03	1.20E-04	1.27E-03	0.00E+00	0.00E+00	0.00E+00
371255.94	3754502.89	6.60E-04	4.80E-03	7.68E-03	7.37E-03	6.04E-03	2.44E-03	1.70E-03	4.60E-04	4.10E-04	4.00E-05	4.20E-04	0.00E+00	0.00E+00	0.00E+00
371258.45	3756962.36	6.27E-02	1.14E-01	2.49E-01	5.21E-01	3.32E-01	1.70E-02	1.77E-02	4.77E-03	1.89E-02	1.81E-03	1.91E-02	0.00E+00	0.00E+00	0.00E+00
371275.69	3757208.66	5.37E-03	7.25E-02	7.52E-02	5.35E-02	4.18E-02	1.45E-02	1.74E-02	5.01E-03	2.53E-02	2.42E-03	2.57E-02	0.00E+00	0.00E+00	0.00E+00
371313.27	3757984.47	8.60E-04	2.06E-02	1.86E-02	1.15E-02	9.80E-03	4.75E-03	4.82E-03	2.72E-03	1.68E-03	1.60E-04	1.72E-03	0.00E+00	0.00E+00	0.00E+00
371348.54	3758024.62	7.30E-04	1.78E-02	1.57E-02	9.79E-03	8.52E-03	4.53E-03	4.46E-03	2.56E-03	1.10E-03	1.10E-04	1.12E-03	0.00E+00	0.00E+00	0.00E+00
371351.62	3755401.81	6.60E-04	4.73E-03	7.47E-03	7.14E-03	5.74E-03	2.35E-03	1.63E-03	4.50E-04	4.10E-04	4.00E-05	4.10E-04	0.00E+00	0.00E+00	0.00E+00
371356.75	3757207.46	5.48E-03	1.01E-01	8.93E-02	5.43E-02	4.03E-02	1.43E-02	1.66E-02	5.42E-03	1.87E-02	1.79E-03	1.90E-02	0.00E+00	0.00E+00	0.00E+00
371396.85	3756960.85	1.65E-01	2.25E-01	1.60E-01	2.99E-01	2.01E-01	1.87E-02	1.51E-02	4.42E-03	1.28E-02	1.23E-03	1.30E-02	0.00E+00	0.00E+00	0.00E+00
371402.37	3758061.24	7.00E-04	1.68E-02	1.50E-02	9.49E-03	8.21E-03	4.34E-03	4.01E-03	2.42E-03	1.01E-03	1.00E-04	1.02E-03	0.00E+00	0.00E+00	0.00E+00
371437.81	3757206.27	5.57E-03	3.06E-02	1.31E-01	5.18E-02	3.66E-02	1.47E-02	1.44E-02	2.52E-03	1.58E-02	1.49E-03	1.47E-02	0.00E+00	0.00E+00	0.00E+00
371447.31	3755400.73	6.60E-04	4.62E-03	7.24E-03	6.90E-03	5.47E-03	2.27E-03	1.58E-03	4.40E-04	4.00E-04	4.00E-05	4.10E-04	0.00E+00	0.00E+00	0.00E+00
371455.33	3756959.34	1.27E-01	1.68E-01	8.93E-02	1.20E-01	1.29E-01	3.35E-02	1.28E-02	4.12E-03	9.23E-03	8.80E-04	9.35E-03	0.00E+00	0.00E+00	0.00E+00
371474.09	3758110.88	6.60E-04	1.60E-02	1.43E-02	9.14E-03	7.84E-03	4.12E-03	3.48E-03	2.23E-03	9.00E-04	9.00E-05	9.10E-04	0.00E+00	0.00E+00	0.00E+00
371518.87	3757205.07	5.73E-03	9.54E-02	7.82E-02	5.13E-01	3.97E-02	1.44E-02	1.49E-02	6.33E-03	1.16E-02	1.11E-03	1.18E-02	0.00E+00	0.00E+00	0.00E+00
371537.39	3758154.69	6.30E-04	1.51E-02	1.38E-02	8.87E-03	7.56E-03	3.96E-03	3.10E-03	2.05E-03	8.20E-04	8.00E-05	8.30E-04	0.00E+00	0.00E+00	0.00E+00
371542.99	3755399.65	6.60E-04	4.49E-03	7.05E-03	6.69E-03	5.25E-03	2.20E-03	1.54E-03	4.30E-04	3.90E-04	4.00E-05	4.00E-04	0.00E+00	0.00E+00	0.00E+00
371599.93	3757203.87	6.00E-03	7.94E-02	7.00E-02	1.18E-01	4.02E-02	1.47E-02	1.44E-02	2.52E-03	9.50E-03	9.10E-04	9.56E-03	0.00E+00	0.00E+00	0.00E+00
371600.70	3758198.51	6.00E-04	1.39E-02	1.32E-02	8.62E-03	7.31E-03	3.83E-03	2.85E-03	1.90E-03	7.50E-04	7.00E-05	7.60E-04	0.00E+00	0.00E+00	0.00E+00
371613.52	3756957.47	3.49E-02	6.52E-02	5.85E-02	6.52E-02	1.15E-01	3.96E-02	1.10E-02	4.45E-03	5.87E-03	5.60E-04	5.95E-03	0.00E+00	0.00E+00	0.00E+00
371638.58	3759398.58	6.60E-04	4.36E-03	6.86E-03	6.47E-03	5.07E-03	2.15E-03	1.49E-03	4.30E-04	3.80E-04	4.00E-05	3.80E-04	0.00E+00	0.00E+00	0.00E+00
371652.22	3756956.31	2.77E-02	5.67E-02	5.44E-02	5.91E-02	1.11E-01	3.96E-02	1.07E-02	4.54E-03	5.31E-03	5.10E-04	5.38E-03	0.00E+00	0.00E+00	0.00E+00
371664.00	3758242.33	5.70E-04	1.28E-02	1.27E-02	8.39E-03	7.13E-03	3.79E-03	2.71E-03	1.79E-03	6.90E-04	7.00E-05	7.00E-04	0.00E+00	0.00E+00	0.00E+00
371678.83	3757576.47	3.25E-03	2.02E-01	1.47E-01	3.64E-02	2.66E-02	1.73E-02	3.05E-02	1.78E-02	8.00E-03	7.60E-04	8.10E-03	0.00E+00	0.00E+00	0.00E+00
371680.99	3757202.68	6.60E-04	1.45E-02	1.30E-02	8.38E-03	7.15E-03	3.68E-03	2.70E-03	1.54E-03	7.40E-04	7.00E-05	7.60E-04	0.00E+00	0.00E+00	0.00E+00
371683.71	3757291.78	4.30E-03	1.02E-01	7.63E-02	4.70E-02	3.17E-02	1.48E-02	1.88E-02	1.21E-02	8.24E-03	7.90E-04	8.35E-03	0.00E+00	0.00E+00	0.00E+00
371734.36	3755397.50	6.60E-04	4.22E-03	6.61E-03	6.24E-03	4.90E-03	2.12E-03	1.44E-03	4.20E-04	3.60E-04	3.00E-05	3.70E-04	0.00E+00	0.00E+00	0.00E+00
371750.66	3756954.80	1.69E-02	4.41E-02	4.80E-02	4.99E-02	1.09E-01	4.12E-02	1.04E-02	4.97E-03	4.19E-03	4.00E-04	4.25E-03	0.00E+00	0.00E+00	0.00E+00
371767.81	3758230.27	5.90E-04	1.35E-02	1.35E-02	8.80E-03	7.38E-03	4.07E-03	3.02E-03	2.01E-03	6.90E-04	7.00E-05	7.00E-04	0.00E+00	0.00E+00	0.00E+00
371801.04	3755399.23	6.60E-04	4.13E-03	6.41E-03	6.08E-03	4.80E-03	2.11E-03	1.40E-03	4.20E-04	3.50E-04	3.00E-05	3.60E-04	0.00E+00	0.00E+00	0.00E+00
371812.25	3757364.20	3.50E-03	1.08E-01	7.77E-02	3.92E-02	2.87E-02	1.27E-02	2.64E-02	1.25E-02	5.35E-03	5.10E-04	6.47E-03	0.00E+00	0.00E+00	0.00E+00
371825.62	3758161.92	6.70E-04	1.66E-02	1.57E-02	9.85E-03	8.04E-03	4.56E-03	3.69E-03	2.57E-03	7.70E-04	7.00E-05	7.80E-04	0.00E+00	0.00E+00	0.00E+00
371849.10	3756953.29	1.14E-02	3.69E-02	4.37E-02	4.43E-02	1.08E-01	4.25E-02	1.00E-02	5.35E-03	3.39E-03	3.20E-04	3.43E-03	0.00E+00	0.00E+00	0.00E+00
371866.03	3757363.09	3.57E-03	3.71E-01	1.01E-01	4.29E-02	3.11E-02	1.87E-02	2.46E-02	4.64E-02	5.95E-03	5.70E-04	6.03E-03	0.00E+00	0.00E+00	0.00E+00
371867.72	3755400.96	6.70E-04	4.02E-03	6.22E-03	5.95E-03	4.71E-03	2.10E-03	1.34E-03	4.20E-04	3.40E-04	3.00E-05	3.50E-04	0.00E+00	0.00E+00	0.00E+00
371895.02	3758059.68	8.00E-04	2.40E-02	2.03E-02	1.20E-02	9.36E-03	5.55E-03	5.18E-03	3.92E-03	9.50E-04	9.00E-05	9.70E-04	0.00E+00	0.00E+00	0.00E+00
371898.90	3758134.17	7.10E-04	1.83E-02	1.71E-02	1.06E-02	8.54E-03	4.94E-03	4.17E-03	2.98E-03	8.10E-04	8.00E-05	8.20E-04	0.00E+00	0.00E+00	0.00E+00
371909.58	3757435.59	2.90E-03	1.06E+00	1.77E-01	3.46E-02	2.58E-02	2.00E-02	3.38E-02	1.25E-02	5.35E-03	5.10E-04	5.42E-03	0.00E+00	0.00E+00	0.00E+00
371916.85	3757398.54	3.23E-03	5.19E-01	1.59E-01	3.70E-02	2.75E-02	1.73E-02	2.41E-02	7.30E-02	5.44E-03	5.20E-04	5.51E-03	0.00E+00	0.00E+00	0.00E+00
371917.20	3757362.27	3.62E-03	7.51E-01	9.81E-02	4.38E-02	3.17E-02	1.84E-02	2.18E-02	1.16E-01	5.51E-03	5.30E-04	5.58E-03	0.00E+00	0.00E+00	0.00E+00
371927.01	3757742.18	1.41E-03	1.72E-01	9.29E-02	3.46E-02	1.60E-02	1.70E-02	3.27E-02	1.06E-01	2.54E-03	2.40E-04	2.58E-03	0.00E+00	0.00E+00	0.00E+00
371928.06	3757790.69	1.27E-03	1.25E-01	6.80E-02	4.14E-02	1.48E-02	1.23E-02	1.98E-02	6.66E-02	2.15E-03	2.10E-04	2.18E-03	0.00E+00	0.00E+00	0.00E+00
371934.40	3755402.69	6.60E-04	3.92E-03	6.04E-03	5.84E-03	4.62E-03	2.09E-03	1.28E-03	4.10E-04	3.30E-04	3.00E-05	3.40E-04	0.00E+00	0.00E+00	0.00E+00
371934.40	3757852.44	1.13E-03	8.04E-02	4.71E-02	2.24E-02	1.33E-02	9.46E-03	1.28E-02	1.95E-02	1.75E-03	1.70E-04	1.77E-03	0.00E+00	0.00E+00	0.00E+00
371937.61	3757919.43	1.00E-03	4.98E-02	3.35E-02	1.73E-02	1.18E-02	7.64E-03	8.96E-03	8.93E-03	1.41E-03	1.40E-04	1.43E-03	0.00E+00	0.00E+00	0.00E+00
371940.82	3757986.42	8.90E-04	3.39E-02	2.59E-02	1.44E-02	1.06E-02	6.54E-03	6.81E-03	5.74E-03	1.16E-03	1.10E-04	1.18E-03	0.00E+00	0.00E+00	0.00E+00
371944.03	3758053.41	8.10E-04	2.49E-02	2.12E-02	1.25E-02	9.66E-03	5.76E-03	5.41E-03	4.17E-03	9.80E-04	9.00E-05	9.90E-04	0.00E+00	0.00E+00	0.00E+00
371947.54	3756951.78	8.22E-03	3.20E-02	4.19E-02	4.26E-02	1.09E-01	4.49E-02	1.07E-02	5.93E-03	2.79E-03	2.70E-04	2.83E-03	0.00E+00	0.00E+00	0.00E+00
371954.98	3757424.18	3.02E-03	4.72E-01	2.12E-01	3.92E-02	2.90E-02	1.94E-02	2.62E-02	2.16E-01	5.08E-03	4.90E-04	5.15E-03	0.00E+00	0.00E+00	0.00E+00
372007.70	3757423.57	3.05E-03	3.52E-01	2.16E-01	4.35E-02	3.19E-02	2.05E-02	2.39E-02	7.02E-02	4.74E-03	4.50E-04	4.81E-03	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Fugitive Dust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
372031.48	3757755.88	1.41E-03	4.71E-01	1.42E-01	8.45E-02	1.86E-02	1.91E-02	3.43E-02	6.13E-02	2.40E-03	2.30E-04	2.44E-03	0.00E+00	0.00E+00	0.00E+00
372033.85	3755399.05	6.50E-04	3.77E-03	5.82E-03	5.73E-03	4.48E-03	2.08E-03	1.19E-03	4.00E-04	3.20E-04	3.00E-05	3.20E-04	0.00E+00	0.00E+00	0.00E+00
372045.99	3756950.26	6.28E-03	2.71E-02	3.69E-02	3.68E-02	1.06E-01	4.43E-02	8.71E-03	5.02E-03	2.34E-03	2.20E-04	2.37E-03	0.00E+00	0.00E+00	0.00E+00
372060.42	3757422.83	3.08E-03	2.67E-01	2.41E-01	3.95E-02	2.92E-02	1.77E-02	1.92E-02	4.22E-02	4.44E-03	4.20E-04	4.49E-03	0.00E+00	0.00E+00	0.00E+00
372097.97	3757754.97	1.44E-03	1.22E+00	3.02E-01	8.74E-02	1.79E-02	1.89E-02	3.47E-02	4.09E-02	2.38E-03	2.30E-04	2.41E-03	0.00E+00	0.00E+00	0.00E+00
372114.62	3757440.24	2.95E-03	3.56E-01	2.58E-01	3.72E-02	2.78E-02	1.72E-02	1.86E-02	3.10E-02	4.11E-03	3.90E-04	4.17E-03	0.00E+00	0.00E+00	0.00E+00
372133.29	3755395.42	6.30E-04	3.64E-03	5.65E-03	5.70E-03	4.35E-03	2.06E-03	1.10E-03	3.90E-04	3.00E-04	3.00E-05	3.10E-04	0.00E+00	0.00E+00	0.00E+00
372144.43	3756948.75	5.00E-03	2.40E-02	3.61E-02	3.69E-02	1.07E-01	4.68E-02	8.87E-03	4.67E-03	2.00E-03	1.90E-04	2.02E-03	0.00E+00	0.00E+00	0.00E+00
372152.01	3757362.33	3.66E-03	8.89E-02	1.06E-01	4.23E-02	3.11E-02	1.66E-02	1.20E-02	2.25E-02	3.96E-03	3.80E-04	4.01E-03	0.00E+00	0.00E+00	0.00E+00
372153.80	3757418.83	3.13E-03	2.35E-01	2.64E-01	3.82E-02	2.86E-02	1.65E-02	1.48E-02	2.43E-02	3.95E-03	3.80E-04	4.00E-03	0.00E+00	0.00E+00	0.00E+00
372154.47	3757439.86	2.96E-03	2.42E-01	2.49E-01	3.70E-02	2.78E-02	1.64E-02	1.46E-02	2.54E-02	3.92E-03	3.80E-04	3.97E-03	0.00E+00	0.00E+00	0.00E+00
372156.97	3757518.41	2.42E-03	3.16E-01	1.72E-01	3.36E-02	2.51E-02	2.11E-02	3.32E-02	3.36E-02	3.70E-03	3.50E-04	3.74E-03	0.00E+00	0.00E+00	0.00E+00
372159.47	3757596.96	2.02E-03	4.11E-01	1.71E-01	3.22E-02	2.27E-02	2.68E-02	5.29E-02	4.32E-02	3.31E-03	3.20E-04	3.36E-03	0.00E+00	0.00E+00	0.00E+00
372161.97	3757675.51	1.71E-03	9.17E-01	2.35E-01	3.52E-02	2.04E-02	2.54E-02	5.12E-02	4.20E-02	2.84E-03	2.70E-04	2.88E-03	0.00E+00	0.00E+00	0.00E+00
372164.46	3757754.06	1.46E-03	6.38E-01	1.77E-01	9.20E-02	1.82E-02	1.86E-02	3.35E-02	3.23E-02	2.35E-03	2.20E-04	2.38E-03	0.00E+00	0.00E+00	0.00E+00
372232.73	3755391.79	6.10E-04	3.52E-03	5.49E-03	5.74E-03	4.23E-03	2.04E-03	1.03E-03	3.80E-04	2.90E-04	3.00E-05	2.90E-04	0.00E+00	0.00E+00	0.00E+00
372242.87	3756947.24	4.10E-03	2.14E-02	3.47E-02	3.63E-02	1.08E-01	4.92E-02	8.36E-03	4.08E-03	1.72E-03	1.60E-04	1.74E-03	0.00E+00	0.00E+00	0.00E+00
372232.18	3755388.11	5.90E-04	3.46E-03	5.34E-03	5.58E-03	4.17E-03	2.04E-03	9.70E-04	3.70E-04	2.70E-04	3.00E-05	2.80E-04	0.00E+00	0.00E+00	0.00E+00
372341.31	3756945.73	3.46E-03	1.95E-02	3.36E-02	3.62E-02	1.08E-01	5.31E-02	7.92E-03	3.61E-03	1.50E-03	1.40E-04	1.52E-03	0.00E+00	0.00E+00	0.00E+00
372410.73	3755381.99	5.80E-04	3.34E-03	5.19E-03	6.05E-03	4.01E-03	2.05E-03	9.30E-04	3.70E-04	2.60E-04	2.00E-05	2.60E-04	0.00E+00	0.00E+00	0.00E+00
372439.76	3756944.21	2.97E-03	1.78E-02	3.41E-02	3.73E-02	1.08E-01	6.09E-02	8.03E-03	3.44E-03	1.33E-03	1.30E-04	1.34E-03	0.00E+00	0.00E+00	0.00E+00
372489.28	3755375.83	5.70E-04	3.26E-03	5.05E-03	6.38E-03	3.91E-03	2.06E-03	9.10E-04	3.70E-04	2.50E-04	2.00E-05	2.50E-04	0.00E+00	0.00E+00	0.00E+00
372538.20	3756942.70	2.59E-03	1.66E-02	3.63E-02	3.92E-02	1.05E-01	7.28E-02	8.74E-03	3.58E-03	1.18E-03	1.10E-04	1.19E-03	0.00E+00	0.00E+00	0.00E+00
372567.83	3755369.67	5.60E-04	3.18E-03	4.91E-03	6.95E-03	3.81E-03	2.06E-03	8.80E-04	3.70E-04	2.40E-04	2.00E-05	2.40E-04	0.00E+00	0.00E+00	0.00E+00
372621.24	3756940.64	2.43E-03	1.55E-02	3.64E-02	4.11E-02	1.02E-01	8.60E-02	9.70E-03	3.70E-03	1.16E-03	1.00E-04	1.17E-03	0.00E+00	0.00E+00	0.00E+00
372627.96	3755505.77	2.54E-03	8.33E-03	1.25E-02	1.10E-02	1.01E-02	7.36E-03	2.33E-03	1.00E-03	4.60E-04	4.00E-05	4.70E-04	0.00E+00	0.00E+00	0.00E+00
372628.35	3756589.05	1.61E-03	8.23E-03	1.45E-02	1.27E-02	1.19E-02	9.04E-03	2.70E-03	1.13E-03	5.10E-04	5.00E-05	5.20E-04	0.00E+00	0.00E+00	0.00E+00
372630.81	3757026.03	2.71E-03	1.80E-02	5.21E-02	5.65E-02	1.03E-01	6.04E-01	1.11E-02	4.35E-03	1.30E-03	1.20E-04	1.32E-03	0.00E+00	0.00E+00	0.00E+00
372632.23	3757120.50	3.03E-03	1.98E-02	8.10E-02	1.30E-01	1.06E-01	1.45E+00	1.09E-02	4.06E-03	1.59E-03	1.50E-04	1.61E-03	0.00E+00	0.00E+00	0.00E+00
372632.53	3756752.34	1.58E-03	1.01E-02	2.06E-02	1.84E-02	1.82E-02	1.54E-02	3.76E-03	1.53E-03	6.80E-04	7.00E-05	6.90E-04	0.00E+00	0.00E+00	0.00E+00
372634.59	3756846.76	1.50E-03	9.19E-03	2.03E-02	1.49E-02	2.61E-02	2.61E-02	5.06E-03	1.08E-03	8.40E-04	8.00E-05	8.50E-04	0.00E+00	0.00E+00	0.00E+00
372634.70	3757211.58	3.12E-03	2.32E-02	7.46E-02	1.55E-01	1.32E-01	8.49E-02	1.21E-02	4.35E-03	1.86E-03	1.80E-04	1.88E-03	0.00E+00	0.00E+00	0.00E+00
372636.64	3756941.19	2.30E-03	1.52E-02	3.83E-02	3.91E-02	5.99E-02	6.32E-02	8.68E-03	3.45E-03	1.06E-03	1.00E-04	1.07E-03	0.00E+00	0.00E+00	0.00E+00
372650.02	3757248.61	3.05E-03	2.59E-02	7.89E-02	1.66E-01	2.41E-01	7.48E-02	1.49E-02	5.16E-03	1.93E-03	1.80E-04	1.95E-03	0.00E+00	0.00E+00	0.00E+00
372671.90	3757332.14	2.85E-03	3.35E-02	1.15E-01	1.49E-01	2.41E-01	5.76E-02	1.38E-02	5.59E-03	2.07E-03	2.00E-04	2.10E-03	0.00E+00	0.00E+00	0.00E+00
372672.36	3756975.42	2.37E-03	1.67E-02	4.70E-02	4.81E-02	8.24E-02	8.67E-02	1.12E-02	4.40E-03	1.11E-03	1.10E-04	1.12E-03	0.00E+00	0.00E+00	0.00E+00
372672.57	3757018.04	2.55E-03	1.87E-02	5.78E-02	6.02E-02	9.57E-02	1.64E-01	1.37E-02	5.37E-03	1.22E-03	1.20E-04	1.24E-03	0.00E+00	0.00E+00	0.00E+00
372692.63	3756588.53	1.56E-03	9.19E-03	2.03E-02	1.49E-02	2.61E-02	2.61E-02	5.06E-03	1.08E-03	8.40E-04	8.00E-05	8.50E-04	0.00E+00	0.00E+00	0.00E+00
372694.60	3756751.91	1.54E-03

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Fugitive Dust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
373641.00	3775383.00	1.43E-03	1.21E-02	3.98E-02	5.90E-02	6.33E-02	1.20E-01	4.04E-03	1.59E-03	9.20E-04	9.00E-05	9.30E-04	0.00E+00	0.00E+00	0.00E+00
373641.00	3775483.00	1.42E-03	1.53E-02	4.51E-02	6.29E-02	6.15E-02	7.63E-02	4.47E-03	1.93E-03	1.00E-03	1.00E-04	1.01E-03	0.00E+00	0.00E+00	0.00E+00
373641.00	3775583.00	1.39E-03	1.88E-02	5.15E-02	7.03E-02	7.77E-02	7.42E-02	4.84E-03	2.32E-03	1.06E-03	1.00E-04	1.07E-03	0.00E+00	0.00E+00	0.00E+00
373641.00	3775683.00	1.33E-03	2.18E-02	5.20E-02	7.00E-02	8.71E-02	7.87E-02	5.16E-03	2.69E-03	1.08E-03	1.00E-04	1.10E-03	0.00E+00	0.00E+00	0.00E+00
373641.00	3775783.00	1.25E-03	2.37E-02	4.62E-02	5.42E-02	7.24E-02	5.90E-02	5.40E-03	2.99E-03	1.08E-03	1.00E-04	1.09E-03	0.00E+00	0.00E+00	0.00E+00
373641.00	3775883.00	1.16E-03	2.46E-02	3.80E-02	3.58E-02	4.84E-02	3.12E-02	5.47E-03	3.13E-03	1.04E-03	1.00E-04	1.05E-03	0.00E+00	0.00E+00	0.00E+00
373641.00	3775983.00	1.07E-03	2.45E-02	3.04E-02	2.41E-02	2.96E-02	1.75E-02	5.35E-03	3.11E-03	9.80E-04	9.00E-05	9.90E-04	0.00E+00	0.00E+00	0.00E+00
373687.89	3775980.08	1.06E-03	2.36E-02	3.04E-02	2.47E-02	3.03E-02	1.82E-02	5.21E-03	3.00E-03	9.70E-04	9.00E-05	9.80E-04	0.00E+00	0.00E+00	0.00E+00
373900.00	3775300.00	1.40E-04	1.10E-03	1.69E-03	1.55E-03	1.31E-03	6.80E-04	3.70E-04	1.20E-04	8.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
373900.00	3775400.00	1.80E-04	1.35E-03	2.26E-03	2.12E-03	1.71E-03	9.70E-04	4.00E-04	1.60E-04	1.10E-04	1.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
373900.00	3775500.00	2.30E-04	1.88E-03	3.14E-03	3.19E-03	2.57E-03	1.69E-03	4.20E-04	1.90E-04	1.40E-04	1.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
373900.00	3775600.00	1.81E-03	4.27E-03	5.97E-03	5.55E-03	4.95E-03	4.01E-03	1.13E-03	3.90E-04	2.30E-04	2.00E-05	2.30E-04	0.00E+00	0.00E+00	0.00E+00
373900.00	3775700.00	1.25E-03	1.26E-02	3.22E-02	3.95E-02	3.95E-02	4.56E-02	3.71E-03	1.59E-03	8.50E-04	8.00E-05	8.60E-04	0.00E+00	0.00E+00	0.00E+00
373900.00	3775800.00	6.10E-04	1.30E-02	1.22E-02	8.07E-03	7.63E-03	4.82E-03	2.98E-03	1.58E-03	5.70E-04	5.00E-05	5.80E-04	0.00E+00	0.00E+00	0.00E+00
373900.00	3776050.00	1.20E-04	1.46E-03	1.99E-03	1.61E-03	1.51E-03	8.60E-04	4.30E-04	1.80E-04	1.10E-04	1.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
373900.00	3776100.00	7.00E-05	9.00E-04	1.03E-03	8.50E-04	8.30E-04	4.90E-04	2.50E-04	1.20E-04	5.00E-05	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00
373900.00	3776450.00	3.00E-05	3.00E-04	3.30E-04	2.90E-04	2.90E-04	1.70E-04	9.00E-05	4.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
374900.00	3774500.00	1.20E-04	9.80E-04	1.54E-03	1.47E-03	1.31E-03	7.80E-04	3.60E-04	1.60E-04	8.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
374900.00	3775500.00	1.70E-04	1.32E-03	2.15E-03	2.18E-03	1.72E-03	1.11E-03	4.00E-04	1.60E-04	1.00E-04	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
374900.00	3776500.00	8.00E-04	2.46E-03	3.49E-03	3.46E-03	2.82E-03	1.87E-03	7.60E-04	2.40E-04	1.60E-04	2.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
374900.00	3777500.00	8.40E-04	6.62E-03	1.22E-02	1.20E-02	1.14E-02	1.05E-02	2.04E-03	8.00E-04	4.80E-04	5.00E-05	4.90E-04	0.00E+00	0.00E+00	0.00E+00
374900.00	3779500.00	2.60E-04	3.94E-03	4.23E-03	3.05E-03	2.79E-03	1.66E-03	1.03E-03	4.70E-04	2.40E-04	2.00E-05	2.40E-04	0.00E+00	0.00E+00	0.00E+00
374900.00	3780500.00	1.40E-04	1.73E-03	1.82E-03	1.35E-03	1.25E-03	7.80E-04	4.30E-04	2.10E-04	1.10E-04	1.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
374900.00	3781500.00	8.00E-05	8.10E-04	9.60E-04	8.00E-04	7.50E-04	4.20E-04	2.60E-04	1.00E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
374900.00	3782500.00	4.00E-05	4.30E-04	5.60E-04	4.50E-04	4.10E-04	2.50E-04	1.10E-04	5.00E-05	4.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
375900.00	3773500.00	8.00E-05	6.30E-04	1.02E-03	9.20E-04	8.20E-04	4.60E-04	1.90E-04	8.00E-05	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
375900.00	3775500.00	1.30E-04	9.70E-04	1.57E-03	1.55E-03	1.30E-03	8.00E-04	3.10E-04	1.20E-04	8.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
375900.00	3776500.00	4.50E-04	1.75E-03	2.52E-03	2.48E-03	1.93E-03	1.16E-03	5.80E-04	1.80E-04	1.20E-04	1.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
375900.00	3780500.00	1.50E-04	6.87E-03	2.22E-03	1.68E-03	1.55E-03	9.40E-04	5.30E-04	2.20E-04	1.30E-04	1.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
375900.00	3781500.00	8.00E-05	1.03E-03	1.15E-03	8.20E-04	6.90E-04	4.10E-04	2.40E-04	1.30E-04	8.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
375900.00	3782500.00	7.00E-05	7.00E-04	7.60E-04	6.40E-04	6.00E-04	3.60E-04	2.20E-04	9.00E-05	5.00E-05	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00
375900.00	3783500.00	4.00E-05	4.30E-04	6.40E-04	5.40E-04	4.90E-04	2.80E-04	1.30E-04	5.00E-05	5.00E-05	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00
375900.00	3784500.00	4.00E-05	4.00E-04	5.60E-04	4.90E-04	4.60E-04	2.50E-04	1.10E-04	5.00E-05	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
376084.62	3771776.42	6.00E-05	9.10E-04	1.04E-03	7.30E-04	6.10E-04	3.60E-04	2.10E-04	1.20E-04	7.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3775500.00	1.10E-04	7.50E-04	1.20E-03	1.15E-03	9.80E-04	5.60E-04	2.40E-04	9.00E-05	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3776500.00	3.00E-04	1.38E-03	1.97E-03	1.91E-03	1.52E-03	8.50E-04	4.60E-04	1.40E-04	9.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3778500.00	5.50E-04	6.87E-03	2.22E-03	1.68E-03	1.55E-03	9.40E-04	5.30E-04	2.20E-04	1.30E-04	1.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
376900.00	3779500.00	8.00E-05	1.03E-03	1.15E-03	8.20E-04	6.90E-04	4.10E-04	2.40E-04	1.30E-04	8.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3780500.00	7.00E-05	7.00E-04	7.60E-04	6.40E-04	6.00E-04	3.60E-04	2.20E-04	9.00E-05	5.00E-05	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3781500.00	1.00E-04	1.14E-03	1.40E-03	1.10E-03	1.03E-03	6.10E-04	3.30E-04	1.30E-04	8.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3782500.00	5.00E-05	7.70E-04	8.90E-04	6.70E-04	5.80E-04	3.50E-04	1.80E-04	1.00E-04	6.00E-05	0.00E+00	6.00E-05	0.00E+00	0.00E+00	0.00E+00
376900.00	3784500.00	4.00E-05	4.30E-04	5.60E-04	4.80E-04	4.50E-04	2.60E-04	1.30E-04	5.00E-05	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
377900.00	3775500.00	9.00E-05	8.40E-04	1.18E-03	1.06E-03	9.00E-04	5.20E-04	2.30E-04	1.40E-04	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
377900.00	3776500.00	2.10E-04	1.02E-03	1.45E-03	1.44E-03	1.11E-03	5.90E-04	3.60E-04	1.00E-04	7.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
377900.00	3777500.00	3.40E-04	2.20E-03	3.16E-03	2.87E-03	2.50E-03	1.69E-03	6.90E-04	2.50E-04	1.70E-04	2.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
377900.00	3779500.00	3.00E-04	3.84E-03	4.62E-03	3.64E-03	3.42E-03	2.16E-03	1.04E-03	4.70E-04	2.50E-04	2.00E-05	2.50E-04	0.00E+00	0.00E+00	0.00E+00
377900.00	3780500.00	1.80E-04	2.36E-03	3.10E-03	2.46E-03	2.15E-03	1.06E-03	6.10E-04	2.80E-04	1.50E-04	1.00E-05	1.60E-04	0.00E+00	0.00E+00	0.00E+00
377900.00	3781500.00	1.10E-04	1.33E-03	1.48E-03	1.14E-03	1.02E-03	6.20E-04	3.70E-04	1.50E-04	9.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
377900.00	3782500.00	7.00E-05	8.10E-04	9.90E-04	8.00E-04	7.50E-04	4.40E-04	2.30E-04	9.00E-05	5.00E-05	1.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
377900.00	3783500.00	5.00E-05	6.10E-04	7.30E-04	5.90E-04	5.40E-04	3.10E-04	1.60E-04	7.00E-05	4.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
377900.00	3784500.00	4.00E-05	4.80E-04	5.80E-04	4.60E-04	4.20E-04	2.30E-04	1.40E-04	6.00E-05	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
378528.59	3784156.44	4.00E-05	5.20E-04	6.30E-04	5.10E-04	4.60E-04	2.70E-04	1.40E-04	6.00E-05	4.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
378900.00	3775500.00	4.00E-05	3.70E-04	5.80E-04	5.30E-04	4.80E-04	2.70E-04	1.20E-04	5.00E-05	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
378900.00	3776500.00	7.00E-05	4.60E-04	6.60E-04	6.20E-04	5.60E-04	2.80E-04	1.60E-04	6.00E-05	4.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
378900.00	3781500.00	1.60E-04	8.00E-04	1.14E-03	1.13E-03	8.80E-04	4.60E-04	2.90E-04	8.00E-05	5.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
378900.00	3782500.00	2.70E-04	1.75E-03	2.46E-03	2.24E-03	1.92E-03	1.26E-03	5.50E-04	2.00E-04	1.40E-04	1.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
378900.00	3783500.00	3.10E-04	3.05E-03	4.02E-03	3.41E-03	3.19E-03	2.23E-03	8.50E-04	3.80E-04	2.20E-04	2.00E-05	2.30E-04	0.00E+00	0.00E+00	0.00E+00
378900.00	3784500.00	2.80E-04	3.26E-03	4.06E-03	3.28E-03	3.07E-03	2.02E-03	8.90E-04	4.00E-04	2.20E-04	2.00E-05	2.30E-04	0.00E+00	0.00E+00	0.00E+00
378900.00	3785500.00	1.90E-04	2.37E-03	2.71E-03	2.09E-03	1.95E-03	1.22E-03	6.30E-04	2.90E-04	1.50E-04	1.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
378900.00	3786500.00	8.00E-05	8.90E-04	1.03E-03	8.10E-04	7.30E-04	4.50E-04	2.60E-04	1.00E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
378900.00	3787500.00	6.00E-05	6.00E-04	7.30E-04	6.00E-04	5.60E-04	3.40E-04	1.70E-04	7.00E-05	4.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
378900.00	3788500.00	4.00E-05	4.90E-04	5.80E-04	4.60E-04	4.20E-04	2.60E-04	1.30E-04	6.00E-05	4.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
378902.85	3775271.45	2.40E-04	1.42E-03	2.01E-03	1.87E-03	1.56E-03	9.80E-04	4.60E-04	1.50E-04	1.10E-04	1.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
379900.00	3774500.00	5.00E-05	3.30E-04	5.10E-04	4.60E-04	4.00E-04	2.10E-04	1.20E-04	4.00E-05	2.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
379900.00	3775500.00	6.00E-05	4.20E-04	5.90E-04	5.30E-04	4.40E-04	2.50E-04	1.40E-04	5.00E-05	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
379900.00	3776500.00	1.30E-04	7.10E-04	1.02E-03	9.90E-04	7.90E-04	4.10E-04	2.60E-04	7.00E-05	5.00E-05	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_PM10_Annual.xlsx

PM10 Annual Summary by Source

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Fugitive Dust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
379900.00	3775500.00	2.20E-04	1.45E-03	2.00E-03	1.82E-03	1.55E-03	1.00E-03	4.50E-04	1.60E-04	1.10E-04	1.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
379900.00	3775900.00	2.50E-04	2.74E-03	3.43E-03	2.85E-03	2.66E-03	1.79E-03	7.50E-04	3.40E-04	1.90E-04	2.00E-05	1.90E-04	0.00E+00	0.00E+00	0.00E+00
379900.00	3776500.00	2.00E-04	2.30E-03	2.70E-03	2.13E-03	1.98E-03	1.25E-03	6.30E-04	2.70E-04	1.50E-04	1.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
379900.00	3781500.00	1.20E-04	1.53E-03	1.73E-03	1.33E-03	1.22E-03	7.50E-04	4.10E-04	1.80E-04	1.00E-04	1.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
379900.00	3782500.00	9.00E-05	1.00E-03	1.11E-03	8.60E-04	7.70E-04	4.50E-04	2.80E-04	1.20E-04	7.00E-05	1.00E-05	7.00E-05	0.00E+00	0.00E+00	0.00E+00
379900.00	3783500.00	6.00E-05	6.50E-04	7.70E-04	6.20E-04	5.60E-04	3.50E-04	1.90E-04	8.00E-05	4.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
379900.00	3784500.00	4.00E-05	4.60E-04	5.60E-04	4.50E-04	4.30E-04	2.60E-04	1.20E-04	6.00E-05	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
380900.00	3775300.00	3.00E-05	2.40E-04	3.70E-04	3.30E-04	3.00E-04	1.70E-04	8.00E-05	3.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
380900.00	3775400.00	4.00E-05	2.90E-04	4.40E-04	4.00E-04	3.40E-04	1.70E-04	1.00E-04	3.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
380900.00	3775500.00	5.00E-05	4.00E-04	5.70E-04	5.20E-04	4.30E-04	2.40E-04	1.40E-04	5.00E-05	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
380900.00	3776500.00	1.20E-04	6.44E-04	9.10E-04	8.70E-04	7.10E-04	3.80E-04	2.30E-04	7.00E-05	5.00E-05	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00
380900.00	3777500.00	1.80E-04	1.21E-03	1.65E-03	1.49E-03	1.28E-03	8.10E-04	3.80E-04	1.30E-04	9.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
380900.00	3778500.00	2.40E-04	1.97E-03	2.58E-03	2.26E-03	2.05E-03	1.40E-03	5.70E-04	2.30E-04	1.50E-04	1.00E-05	1.50E-04	0.00E+00	0.00E+00	0.00E+00
380900.00	3779500.00	2.30E-04	2.33E-03	2.90E-03	2.44E-03	2.26E-03	1.53E-03	6.50E-04	2.90E-04	1.60E-04	2.00E-05	1.70E-04	0.00E+00	0.00E+00	0.00E+00
380900.00	3780500.00	1.90E-04	2.17E-03	2.58E-03	2.06E-03	1.90E-03	1.22E-03	6.00E-04	2.60E-04	1.40E-04	1.00E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
380900.00	3781500.00	1.30E-04	1.56E-03	1.78E-03	1.39E-03	1.29E-03	8.10E-04	4.20E-04	1.90E-04	1.10E-04	1.00E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00
380900.00	3782500.00	9.00E-05	1.08E-03	1.21E-03	9.30E-04	8.50E-04	5.10E-04	2.90E-04	1.30E-04	8.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
380900.00	3783500.00	7.00E-05	7.90E-04	8.80E-04	6.80E-04	6.10E-04	3.60E-04	2.20E-04	9.00E-05	5.00E-05	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00
380900.00	3784500.00	5.00E-05	5.30E-04	6.20E-04	4.90E-04	4.40E-04	2.60E-04	1.50E-04	6.00E-05	4.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
380900.00	3785500.00	3.00E-05	2.20E-04	3.40E-04	3.10E-04	2.70E-04	1.40E-04	8.00E-05	3.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
382900.00	3775500.00	3.00E-05	2.70E-04	4.00E-04	3.60E-04	3.20E-04	1.70E-04	9.00E-05	3.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
382900.00	3776500.00	9.00E-05	8.30E-04	1.16E-03	1.02E-03	9.30E-04	5.90E-04	3.00E-04	1.40E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
382900.00	3777500.00	1.30E-04	8.80E-04	1.18E-03	1.06E-03	9.00E-04	5.60E-04	2.80E-04	1.00E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
382900.00	3778500.00	1.70E-04	1.36E-03	1.77E-03	1.57E-03	1.40E-03	9.30E-04	4.00E-04	1.60E-04	1.00E-04	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
382900.00	3779500.00	1.80E-04	1.76E-03	2.15E-03	1.82E-03	1.66E-03	1.12E-03	5.00E-04	2.10E-04	1.30E-04	1.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
382900.00	3780500.00	1.70E-04	1.77E-03	2.14E-03	1.76E-03	1.62E-03	1.07E-03	4.90E-04	2.20E-04	1.30E-04	1.00E-05	1.30E-04	0.00E+00	0.00E+00	0.00E+00
382900.00	3781500.00	1.40E-04	1.53E-03	1.81E-03	1.46E-03	1.34E-03	8.40E-04	4.30E-04	1.80E-04	1.00E-04	1.00E-05	1.00E-04	0.00E+00	0.00E+00	0.00E+00
382900.00	3782500.00	9.00E-05	1.10E-03	1.22E-03	9.30E-04	8.50E-04	5.00E-04	3.00E-04	1.40E-04	8.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
382900.00	3783500.00	7.00E-05	8.30E-04	9.40E-04	7.40E-04	6.70E-04	4.10E-04	2.30E-04	1.00E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
383900.00	3773500.00	3.00E-05	2.10E-04	3.20E-04	2.90E-04	2.60E-04	1.40E-04	7.00E-05	3.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
383900.00	3774500.00	3.00E-05	2.50E-04	3.70E-04	3.30E-04	3.00E-04	1.60E-04	8.00E-05	3.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
383900.00	3775500.00	4.00E-05	3.20E-04	4.70E-04	4.20E-04	3.60E-04	2.00E-04	1.10E-04	4.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
383900.00	3776500.00	8.00E-05	4.70E-04	6.70E-04	6.10E-04	5.00E-04	2.70E-04	1.60E-04	5.00E-05	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
383900.00	3777500.00	1.10E-04	7.10E-04	1.03E-03	9.70E-04	7.80E-04	4.80E-04	2.40E-04	1.20E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
383900.00	3778500.00	1.00E-04	1.13E-03	1.32E-03	1.05E-03	9.70E-04	6.10E-04	3.10E-04	1.40E-04	8.00E-05	1.00E-05	8.00E-05	0.00E+00	0.00E+00	0.00E+00
383900.00	3779500.00	7.00E-05	8.40E-04	9.70E-04	7.60E-04	7.00E-04	4.40E-04	2.30E-04	1.00E-04	6.00E-05	1.00E-05	6.00E-05	0.00E+00	0.00E+00	0.00E+00
383900.00	3780500.00	5.00E-05	6.30E-04	7.10E-04	5.50E-04	5.00E-04	3.00E-04	1.70E-04	8.00E-05	5.00E-05	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00
384900.00	3773500.00	2.00E-05	1.90E-04	3.00E-04	2.70E-04	2.40E-04	1.30E-04	7.00E-05	2.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
384900.00	3774500.00	3.00E-05	2.30E-04	3.40E-04	3.00E-04	2.70E-04	1.50E-04	7.00E-05	3.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
384900.00	3775500.00	4.00E-05	3.20E-04	4.60E-04	4.20E-04	3.60E-04	2.00E-04	1.10E-04	4.00E-05	2.00E-05	0.00E+00	2.00E-05	0.00E+00	0.00E+00	0.00E+00
384900.00	3776500.00	7.00E-05	4.30E-04	6.00E-04	5.50E-04	4.60E-04	2.50E-04	1.50E-04	5.00E-05	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
384900.00	3777500.00	1.00E-04	6.80E-04	8.90E-04	8.00E-04	6.80E-04	4.10E-04	2.20E-04	7.00E-05	5.00E-05	0.00E+00	5.00E-05	0.00E+00	0.00E+00	0.00E+00
384900.00	3778500.00	1.30E-04	1.00E-03	1.29E-03	1.14E-

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Fugitive Dust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
371041.00	3757283.00	4.25E-03	6.16E-02	6.56E-02	5.26E-02	4.19E-02	1.80E-02	9.35E-02	5.40E-03	1.31E-01	1.25E-02	1.32E-01	0.00E+00	0.00E+00	0.00E+00
371141.00	3757083.00	9.43E-03	7.79E-02	1.02E-01	9.61E-02	6.47E-02	1.80E-02	1.98E-02	4.88E-03	5.01E-02	4.79E-03	5.07E-02	0.00E+00	0.00E+00	0.00E+00
371141.00	3757183.00	6.04E-03	6.65E-02	7.41E-02	6.22E-02	4.85E-02	1.64E-02	1.88E-02	4.70E-03	5.28E-02	5.04E-03	5.35E-02	0.00E+00	0.00E+00	0.00E+00
371141.00	3757283.00	4.17E-03	6.81E-02	7.32E-02	4.62E-02	3.74E-02	1.46E-02	3.92E-02	4.69E-03	4.45E-02	4.25E-03	4.51E-02	0.00E+00	0.00E+00	0.00E+00
371150.00	3757970.99	7.40E-04	1.81E-02	1.62E-02	1.01E-02	8.93E-03	4.43E-03	4.31E-03	2.16E-03	1.36E-03	1.30E-04	1.38E-03	0.00E+00	0.00E+00	0.00E+00
371241.00	3758083.00	1.04E-02	7.33E-02	9.92E-02	9.51E-02	6.38E-02	1.62E-02	1.72E-02	4.65E-03	2.68E-02	2.56E-03	2.72E-02	0.00E+00	0.00E+00	0.00E+00
371241.00	3757183.00	5.93E-03	6.89E-02	7.51E-02	5.91E-02	4.55E-02	1.51E-02	1.71E-02	4.83E-03	2.96E-02	2.83E-03	2.99E-02	0.00E+00	0.00E+00	0.00E+00
371341.00	3758083.00	1.10E-02	8.81E-02	1.04E-01	9.20E-02	6.52E-02	1.64E-02	1.52E-02	4.61E-03	1.73E-02	1.65E-03	1.75E-02	0.00E+00	0.00E+00	0.00E+00
371341.00	3757183.00	6.01E-03	8.76E-02	8.43E-02	5.82E-02	4.34E-02	1.46E-02	1.61E-02	5.18E-03	1.96E-02	1.88E-03	1.99E-02	0.00E+00	0.00E+00	0.00E+00
371441.00	3757083.00	1.27E-02	1.87E-01	1.24E-01	9.17E-02	7.35E-02	1.92E-02	1.37E-02	4.73E-03	1.23E-02	1.18E-03	1.25E-02	0.00E+00	0.00E+00	0.00E+00
371441.00	3757183.00	6.17E-03	1.89E-01	1.10E-01	7.07E-02	4.25E-02	1.46E-02	1.50E-02	5.56E-03	1.42E-02	1.35E-03	1.43E-02	0.00E+00	0.00E+00	0.00E+00
371539.56	3757095.63	1.31E-02	8.21E-02	8.28E-02	8.16E-02	7.02E-02	2.02E-02	1.28E-02	5.26E-03	9.55E-03	9.10E-04	9.67E-03	0.00E+00	0.00E+00	0.00E+00
371540.36	3757178.31	6.70E-03	8.64E-02	7.59E-02	9.03E-02	4.38E-02	1.50E-02	1.39E-02	6.12E-03	1.07E-02	1.03E-03	1.09E-02	0.00E+00	0.00E+00	0.00E+00
371614.33	3757093.32	1.43E-02	6.76E-02	7.17E-02	7.52E-02	7.27E-02	2.27E-02	1.26E-02	5.97E-03	7.89E-03	7.50E-04	7.99E-03	0.00E+00	0.00E+00	0.00E+00
371615.15	3757177.59	7.24E-03	7.38E-02	6.91E-02	9.25E-02	4.45E-02	1.55E-02	1.37E-02	7.11E-03	8.94E-03	8.50E-04	9.06E-03	0.00E+00	0.00E+00	0.00E+00
371641.00	3757083.00	1.57E-02	6.39E-02	6.85E-02	7.31E-02	7.97E-02	2.58E-02	1.24E-02	6.17E-03	7.27E-03	7.00E-04	7.36E-03	0.00E+00	0.00E+00	0.00E+00
371641.00	3757183.00	7.16E-03	7.18E-02	6.74E-02	9.89E-02	4.37E-02	1.56E-02	1.38E-02	7.71E-03	8.48E-03	8.10E-04	8.59E-03	0.00E+00	0.00E+00	0.00E+00
371741.00	3757083.00	1.41E-02	5.54E-02	5.97E-02	7.07E-02	7.89E-02	2.81E-02	1.26E-02	7.59E-03	5.82E-03	5.60E-04	5.90E-03	0.00E+00	0.00E+00	0.00E+00
371741.00	3757183.00	7.63E-03	6.50E-02	6.25E-02	8.56E-02	4.44E-02	1.68E-02	1.36E-02	1.08E-02	6.85E-03	6.60E-04	6.94E-03	0.00E+00	0.00E+00	0.00E+00
371741.00	3757283.00	4.58E-03	9.53E-02	7.14E-02	5.05E-02	3.28E-02	1.52E-02	1.80E-02	1.47E-02	7.38E-03	7.10E-04	7.48E-03	0.00E+00	0.00E+00	0.00E+00
371841.00	3757083.00	1.17E-02	4.91E-02	5.50E-02	5.86E-02	7.88E-02	3.06E-02	1.23E-02	1.03E-02	4.76E-03	4.50E-04	4.82E-03	0.00E+00	0.00E+00	0.00E+00
371841.00	3757183.00	7.61E-03	5.87E-02	5.92E-02	8.62E-02	4.62E-02	1.91E-02	1.39E-02	2.21E-02	5.64E-03	5.40E-04	5.71E-03	0.00E+00	0.00E+00	0.00E+00
371841.00	3757283.00	4.77E-03	9.02E-02	6.75E-02	5.38E-02	3.48E-02	1.69E-02	1.77E-02	3.06E-02	6.17E-03	5.90E-04	6.25E-03	0.00E+00	0.00E+00	0.00E+00
371900.00	3757500.00	2.20E-04	1.55E-03	2.49E-03	2.37E-03	1.94E-03	8.80E-04	6.10E-04	1.60E-04	1.20E-04	1.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
371900.00	3757400.00	3.00E-04	2.66E-03	3.59E-03	3.59E-03	2.81E-03	1.22E-03	7.70E-04	2.30E-04	1.90E-04	1.60E-05	1.90E-04	0.00E+00	0.00E+00	0.00E+00
371900.00	3760500.00	1.10E-04	1.45E-03	1.88E-03	1.55E-03	1.48E-03	8.00E-04	3.50E-04	1.90E-04	1.20E-04	1.00E-05	1.20E-04	0.00E+00	0.00E+00	0.00E+00
371900.00	3761500.00	7.00E-05	9.40E-04	1.24E-03	1.06E-03	1.02E-03	5.50E-04	2.20E-04	1.20E-04	9.00E-05	1.00E-05	9.00E-05	0.00E+00	0.00E+00	0.00E+00
371900.00	3764500.00	3.00E-05	4.20E-04	5.50E-04	4.90E-04	4.80E-04	2.50E-04	1.00E-04	5.00E-05	4.00E-05	0.00E+00	4.00E-05	0.00E+00	0.00E+00	0.00E+00
371941.00	3757083.00	9.50E-03	4.42E-02	5.47E-02	6.00E-02	8.14E-02	3.50E-02	1.47E-02	1.34E-02	3.94E-03	3.80E-04	4.00E-03	0.00E+00	0.00E+00	0.00E+00
371941.00	3757183.00	7.17E-03	5.26E-02	5.64E-02	1.17E-01	4.70E-02	2.08E-02	1.36E-02	1.33E-01	4.71E-03	4.50E-04	4.77E-03	0.00E+00	0.00E+00	0.00E+00
371941.00	3757283.00	4.85E-03	7.49E-02	6.38E-02	5.22E-02	3.44E-02	1.65E-02	1.50E-02	7.66E-03	5.22E-03	5.00E-04	5.29E-03	0.00E+00	0.00E+00	0.00E+00
372041.00	3757083.00	3.41E-03	5.84E-01	1.26E-01	3.89E-02	2.86E-02	1.67E-02	2.05E-02	9.22E-02	5.29E-03	5.10E-04	5.36E-03	0.00E+00	0.00E+00	0.00E+00
372041.00	3757083.00	7.72E-03	3.73E-02	4.80E-02	5.19E-02	7.67E-02	3.35E-02	1.18E-02	9.29E-03	3.32E-03	3.20E-04	3.36E-03	0.00E+00	0.00E+00	0.00E+00
372041.00	3757183.00	6.51E-03	4.48E-02	5.37E-02	1.13E-01	4.70E-02	2.19E-02	1.24E-02	2.40E-02	3.98E-03	3.80E-04	4.04E-03	0.00E+00	0.00E+00	0.00E+00
372041.00	3757283.00	4.79E-03	5.94E-02	6.48E-02	5.56E-02	3.69E-02	1.86E-02	1.41E-02	4.23E-02	4.46E-03	4.30E-04	4.52E-03	0.00E+00	0.00E+00	0.00E+00
372041.00	3757383.00	3.46E-03	1.70E-01	1.35E-01	4.30E-02	3.14E-02	1.77E-02	1.70E-02	4.70E-02	4.60E-03	4.40E-04	4.66E-03	0.00E+00	0.00E+00	0.00E+00
372041.00	3757783.00	1.34E-03	2.50E-01	9.74E-02	1.00E-01	1.72E-02	1.58E-02	2.63E-02	4.97E-02	2.21E-03	2.10E-04	2.24E-03	0.00E+00	0.00E+00	0.00E+00
372041.00	3757883.00	1.09E-03	6.84E-02	4.35E-02	2.39E-02	1.32E-02	9.18E-03	1.77E-02	2.62E-02	1.62E-03	1.60E-04	1.64E-03	0.00E+00	0.00E+00	0.00E+00
372041.00	3757983.00	9.10E-04	3.68E-02	2.80E-02	1.57E-02	1.12E-02	6.94E-03	7.16E-03	5.76E-03	1.21E-03	1.20E-04	1.22E-03	0.00E+00	0.00E+00	0.00E+00
372141.00	3757083.00	6.34E-03	3.18E-02	4.45E-02	4.79E-02	7.41E-02	3.37E-02	1.00E-02	6.58E-03	2.82E-03	2.70E-04	2.86E-03	0.00E+00	0.00E+00	0.00E+00
372141.00	3757183.00	5.78E-03	3.78E-02	5.01E-02	1.07E-01	4.52E-02	2.18E-02	9.92E-03	1.14E-02	3.41E-03	3.30E-04	3.45E-03	0.00E+00	0.00E+00	0.00E+00
372141.00	3757283.00	4.58E-03	4.99E-02	6.30E-02	5.23E-02	3.55E-02	1.80E-02	1.09E-02	2.07E-02	3.85E-03	3.70E-04	3.90E-03	0.00E+00	0.00E+00	0.00E+00
372141.00	3757383.00	1.37E-03	3.61E-01	1.17E-01	1.08E-01	1.71E-02	1.61E-02	2.74E-02	3.04E-02	2.19E-03	2.10E-04	2.21E-03	0.00E+00	0.00E+00	0.00E+00
372141.00	3757883.00	1.13E-03	7.56E-02	4.67E-02	2.78E-02	1.41E-02	1.01E-02	1.31E-02	1.52E-02	1.65E-03	1.60E-04	1.67E-03	0.00E+00	0.00E+00	0.00E+00
372141.00	3757983.00	9.41E-04	4.06E-02	3.00E-02	1.67E-02	1.19E-02	7.41E-03	7.69E-03	5.76E-03	1.24E-03	1.20E-04	1.26E-03	0.00E+00	0.00E+00	0.00E+00
372241.00	3757083.00	5.27E-03	2.80E-02	4.31E-02	4.69E-02	7.30E-02	3.59E-02	9.11E-03	5.19E-03	2.43E-03	2.30E-04	2.46E-03	0.00E+00	0.00E+00	0.00E+00
372241.00	3757183.00	5.09E-03	3.30E-02	4.89E-02	1.05E-01	4.52E-02	2.39E-02	8.70E-03	7.40E-03	2.94E-03	2.80E-04	2.98E-03	0.00E+00	0.00E+00	0.00E+00
372241.00	3757283.00	4.29E-03	4.33E-02	6.27E-02	5.21E-02	3.61E-02	1.94E-02	9.30E-03	1.25E-02	3.34E-03	3.20E-04	3.38E-03	0.00E+00	0.00E+00	0.00E+00
372241.00	3757483.00	2.66E-03	1.70E-01	1.67E-01	3.57E-02	2.72E-02	1.76E-02	1.90E-02	2.06E-02	3.48E-03	3.30E-04	3.53E-03	0.00E+00	0.00E+00	0.00E+00
372241.00	3757583.00	2.11E-03	2.06E-01	1.19E-01	3.30E-02	2.40E-02	2.17E-02	3.55E-02	2.90E-02	3.17E-03	3.00E-04	3.21E-03	0.00E+00	0.00E+00	0.00E+00
372241.00	3757683.00	1.16E-03	4.03E-01	1.41E-01	3.72E-02	2.11E-02	2.18E-02	3.94E-02	3.09E-02	2.68E-03	2.60E-04	2.71E-03	0.00E+00	0.00E+00	0.00E+00
372241.00	3757783.00	1.40E-03	2.86E-01	1.01E-01	1.10E-01	1.81E-02	1.61E-02	2.62E-02	2.34E-02	2.14E-03	2.00E-04	2.17E-03	0.00E+00	0.00E+00	0.00E+00
372341.00	3757083.00	4.45E-03	2.49E-02	4.25E-02	4.87E-02	7.28E-02	4.12E-02	8.62E-03	4.37E-03	2.11E-03	2.00E-04	2.14E-03	0.00E+00	0.00E+00	0.00E+00
372341.00	3757183.00	4.47E-03	2.88E-02	4.93E-02	1.06E-01	4.68E-02	2.87E-02	8.00E-03	5.50E-03	2.56E-03	2.40E-04	2.59E-03	0.00E+00	0.00E+00	0.00E+00
372341.00	3757283.00	3.97E-03	3.74E-02	6.39E-02	5.47E-02	3.85E-02	2.28E-02	8.37E-03	8.53E-03	2.92E-03	2.80E-04	2.96E-03	0.00E+00	0.00E+00	0.00E+00
372341.00	3757383.00	3.28E-03	6.89E-02	1.55E-01	4.37E-02	3.36E-02	1.91E-02	9.83E-03	1.14E-02	3.13E-03	3.00E-04	3.17E-03	0.00E+00	0.00E+00	0.00E+00
372341.00	3757483.00	2.65E-03	1.20E-01	1.63E-01	3.80E-02	2.98E-02	1.79E-02	1.53E-02	1.50E-02	3.13E-03	3.00E-04	3.17E-03	0.00E+00	0.00E+00	0.00E+00
372341.00	3757583.00	2.12E-03	1.41E-01	1.01E-01	3.92E-02	2.64E-02	1.93E-02	2.54E-02	2.02E-02	2.91E-03	2.80E-04	2.95E-03	0.00E+00	0.00E+00	0.00E+00
372341.00	3757683.00	1.72E-03	2.18E-01	9.94E-02	3.88E-02	2.30E-02	1.93E-02	2.99E-02	2.26E-02	2.53E-03	2.40E-04	2.56E-03	0.00E+00	0.00E+00	0.00E+00
372341.00	3757783.00	1.42E-03	2.04E-01	8.37E-02	1.10E-01	1.99E-02	1.57E-02	2.35E-02	1.89E-02	2.08E-03	2.00E-04	2.11E-03	0.00E+00	0.00E+00	0.00E+00
372341.00	3757883.00	3.80E-03	2.20E-02	4.33E-02	5.59E-02	7.38E-02	5.74E-02	8.55E-03	3.92E-03	1.85E-03	1.80E-04	1.87E-03	0.00E+00	0.00E+00	0.00E+00
372441.00	3757183.00	3.93E-03	2.53E-02	5.13E-02	1.23E-01	5.15E-02	4.08E-02	7.82E-03	4.47E-03	2.24E-03	2.10E-04	2.27E-03	0.00E+00	0.00E+00	0.00E+00
372441.00	3757283.00	3.64E-03	3.29E-02	6.84E-02	6.17E-02	4.48E-02	2.88E-02	8.06E-03	6.39E-03	2.58E-03	2.50E-04	2.61E-03	0.00E+00	0.00E+00	0.00E+00
372441.00	3757383.00	3.13E-03	5.79E-02	1.81E-01	4.97E-02	3.97E-02	2.21E-02	9.26E-03	8.74E-03	2.79E-03	2.70E-04	2.82E-03	0.00E+00	0.00E+00	0.00E+00
372441.00	3757483.00	2.60E-03	9.68E-02	1.67E-01	4.29E-02	3.48E-02	1.91E-02	1.30E-02	1.16E-02	2.82E-03	2.70E-04	2.86E-03	0.00E+00	0.00E+00	0.00E+00
372441.00	3757583.00	2.13E-03	1.06E-01	9.74E-02	3.81E-02	3.05E-02	1.86E-02	1.95E-02	1.52E-02	2.67E-03	2.60E-04	2.71E-03	0.00E+00	0.00E+00	0.00E+00
372441.00	3757683.00	1.74E-03	1.46E-01	8.46E-02	4.06E-02	2.65E-02	1.81E-02	2.34E-02	1.73E-02	2.38E-03	2.30E-04	2.41E-03	0.00E+00	0.00E+00	0.00E+00
372441.00	3757783.00	1.44E-03	1.50E-01	7.28E-02	1.10E-01	2.28E-02	1.55E-02	2.06E-02	1.56E-02	2.01E-03	1.90E-04	2.04E-03	0.00E+00	0.00E+00	0.00E+00
372441.00	3757883.00	1.20E-03	9.42E-02	5.13E-02	3.54E-02	1.90E-02	1.21E-02	1.45E-02	1.12E-02	1.63E-03	1.60E-04	1.66E-03	0.00E+00	0.00E+00	0.00E+00
372441.00	3757983.00	1.01E-03	5.04E-02	3.42E-02	2.01E-02	1.55E-02	9.30E-03	9.49E-03	6.80E-03	1.30E-03	1.20E-04	1.32E-03	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_PM10_Annual.xlsx

PM10 Annual Summary by Source

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Fugitive Dust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
372541.00	3757083.00	3.30E-03	2.02E-02	5.06E-02	7.30E-02	7.77E-02	1.64E-01	9.76E-03	4.04E-03	1.64E-03	1.60E-04	1.66E-03	0.00E+00	0.00E+00	0.00E+00
372541.00	3757183.00	3.47E-03	2.33E-02	5.91E-02	2.73E-01	7.23E-02	7.76E-02	9.00E-03	4.19E-03	1.98E-03	1.90E-04	2.01E-03	0.00E+00	0.00E+00	0.00E+00
372541.00	3757283.00	3.32E-03	3.01E-02	7.41E-02	7.68E-02	6.72E-02	3.80E-02	8.96E-03	5.39E-03	2.28E-03	2.20E-04	2.31E-03	0.00E+00	0.00E+00	0.00E+00
372541.00	3757383.00	2.96E-03	5.03E-02	1.62E-01	6.53E-02	5.57E-02	2.70E-02	9.56E-03	7.16E-03	2.49E-03	2.40E-04	2.52E-03	0.00E+00	0.00E+00	0.00E+00
372541.00	3757483.00	2.52E-03	8.64E-02	2.04E-01	5.50E-02	4.56E-02	2.16E-02	1.18E-02	9.35E-03	2.55E-03	2.40E-04	2.58E-03	0.00E+00	0.00E+00	0.00E+00
372541.00	3757583.00	2.11E-03	8.47E-02	1.01E-01	4.25E-02	3.83E-02	1.93E-02	1.60E-02	1.20E-02	2.46E-03	2.40E-04	2.49E-03	0.00E+00	0.00E+00	0.00E+00
372541.00	3757683.00	1.76E-03	1.08E-01	7.82E-02	4.27E-02	3.30E-02	1.80E-02	1.89E-02	1.37E-02	2.24E-03	2.10E-04	2.27E-03	0.00E+00	0.00E+00	0.00E+00
372541.00	3757783.00	1.46E-03	1.15E-01	6.62E-02	1.10E-01	2.82E-02	1.58E-02	1.78E-02	1.30E-02	1.93E-03	1.80E-04	1.96E-03	0.00E+00	0.00E+00	0.00E+00
372541.00	3757883.00	1.21E-03	8.65E-02	4.99E-02	3.65E-02	2.26E-02	1.27E-02	1.38E-02	1.02E-02	1.61E-03	1.50E-04	1.63E-03	0.00E+00	0.00E+00	0.00E+00
372541.00	3757983.00	1.02E-03	5.27E-02	3.51E-02	2.11E-02	1.76E-02	9.97E-03	9.69E-03	6.80E-03	1.30E-03	1.20E-04	1.32E-03	0.00E+00	0.00E+00	0.00E+00
372641.00	3757583.00	2.78E-03	4.65E-02	3.10E-01	1.64E-01	8.47E-02	1.04E-01	1.41E-01	3.82E-02	1.20E-02	6.69E-03	2.23E-03	2.10E-04	2.26E-03	0.00E+00
372641.00	3757483.00	2.43E-03	7.95E-02	3.96E-01	1.01E-01	8.54E-02	2.72E-02	1.28E-02	8.50E-03	2.31E-03	2.20E-04	2.34E-03	0.00E+00	0.00E+00	0.00E+00
372641.00	3757583.00	2.08E-03	7.10E-02	1.12E-01	5.00E-02	5.89E-02	2.17E-02	1.43E-02	1.00E-02	2.26E-03	2.20E-04	2.29E-03	0.00E+00	0.00E+00	0.00E+00
372641.00	3757683.00	1.76E-03	8.56E-02	7.97E-02	4.58E-02	4.95E-02	1.94E-02	1.62E-02	1.13E-02	2.10E-03	2.00E-04	2.12E-03	0.00E+00	0.00E+00	0.00E+00
372641.00	3757783.00	1.47E-03	9.20E-02	6.29E-02	1.56E-01	4.22E-02	1.66E-02	1.57E-02	1.10E-02	1.85E-03	1.80E-04	1.87E-03	0.00E+00	0.00E+00	0.00E+00
372641.00	3757883.00	1.23E-03	7.68E-02	4.84E-02	3.69E-02	3.08E-02	1.33E-02	1.29E-02	9.16E-03	1.57E-03	1.50E-04	1.59E-03	0.00E+00	0.00E+00	0.00E+00
372641.00	3757983.00	1.04E-03	5.27E-02	3.55E-02	2.18E-02	2.05E-02	1.07E-02	9.63E-03	6.62E-03	1.30E-03	1.20E-04	1.32E-03	0.00E+00	0.00E+00	0.00E+00
372741.00	3757583.00	1.49E-03	7.54E-02	6.15E-02	1.28E-01	1.08E-01	1.78E-02	1.38E-02	9.46E-03	1.76E-03	1.70E-04	1.79E-03	0.00E+00	0.00E+00	0.00E+00
372741.00	3757683.00	1.25E-03	6.74E-02	4.71E-02	3.62E-02	5.73E-02	1.43E-02	1.19E-02	8.21E-03	1.53E-03	1.50E-04	1.55E-03	0.00E+00	0.00E+00	0.00E+00
372741.00	3757783.00	1.06E-03	5.08E-02	3.55E-02	2.24E-02	2.36E-02	1.15E-02	9.37E-03	6.31E-03	1.29E-03	1.20E-04	1.30E-03	0.00E+00	0.00E+00	0.00E+00
372841.00	3757783.00	1.49E-03	6.37E-02	6.68E-02	5.51E-02	1.54E-01	2.07E-02	1.32E-02	8.53E-03	1.68E-03	1.60E-04	1.70E-03	0.00E+00	0.00E+00	0.00E+00
372841.00	3757883.00	1.27E-03	5.91E-02	4.61E-02	3.51E-02	6.64E-02	1.56E-02	1.09E-02	7.31E-03	1.48E-03	1.40E-04	1.50E-03	0.00E+00	0.00E+00	0.00E+00
372841.00	3757983.00	1.08E-03	4.78E-02	3.52E-02	2.27E-02	2.48E-02	1.24E-02	8.95E-03	5.93E-03	1.27E-03	1.20E-04	1.28E-03	0.00E+00	0.00E+00	0.00E+00
372841.75	3758064.00	1.00E-03	4.49E-02	3.49E-02	2.31E-02	2.83E-02	1.01E-02	2.79E-02	1.09E-02	5.00E-04	0.00E+00	5.00E-04	0.00E+00	0.00E+00	0.00E+00
372857.79	3758054.91	1.63E-03	1.00E-02	2.83E-02	2.30E-02	2.10E-02	1.84E-02	4.59E-03	1.74E-03	7.10E-04	7.00E-05	7.10E-04	0.00E+00	0.00E+00	0.00E+00
372900.00	3758500.00	5.40E-04	1.10E-02	1.09E-02	6.85E-03	4.00E-03	2.63E-03	1.33E-03	5.31E-04	5.00E-05	5.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372900.00	3763500.00	2.00E-05	3.40E-04	4.10E-04	3.10E-04	2.70E-04	1.90E-04	7.00E-05	4.00E-05	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
372900.00	3764500.00	3.00E-05	3.60E-04	4.30E-04	3.50E-04	3.40E-04	2.10E-04	9.00E-05	4.00E-05	3.00E-05	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00
372941.00	3757783.00	1.48E-03	5.41E-02	8.54E-02	4.55E-02	1.85E-01	2.33E-02	1.10E-02	7.14E-03	1.59E-03	1.50E-04	1.61E-03	0.00E+00	0.00E+00	0.00E+00
372941.00	3757883.00	1.18E-03	6.20E-02	4.44E-02	3.19E-02	5.21E-02	1.75E-02	9.89E-03	6.53E-03	1.42E-03	1.40E-04	1.44E-03	0.00E+00	0.00E+00	0.00E+00
372941.00	3757983.00	1.10E-03	4.43E-02	3.46E-02	2.28E-02	2.61E-02	1.29E-02	8.46E-03	5.51E-03	1.24E-03	1.20E-04	1.26E-03	0.00E+00	0.00E+00	0.00E+00
373035.50	3755453.68	6.10E-04	2.85E-03	4.20E-03	3.20E-02	3.31E-03	2.00E-03	7.50E-04	3.20E-04	2.10E-04	2.00E-05	2.10E-04	0.00E+00	0.00E+00	0.00E+00
373035.50	3755652.82	1.11E-03	3.49E-03	4.65E-03	3.33E-02	3.74E-03	2.35E-03	8.20E-04	3.60E-04	2.20E-04	2.00E-05	2.30E-04	0.00E+00	0.00E+00	0.00E+00
373041.00	3757783.00	1.47E-03	4.66E-02	6.70E-02	4.71E-02	1.78E-01	2.95E-02	9.62E-03	6.14E-03	1.51E-03	1.40E-04	1.53E-03	0.00E+00	0.00E+00	0.00E+00
373041.00	3757883.00	1.28E-03	4.59E-02	4.34E-02	3.25E-02	5.08E-02	1.95E-02	9.02E-03	5.84E-03	1.37E-03	1.30E-04	1.39E-03	0.00E+00	0.00E+00	0.00E+00
373041.00	3757983.00	1.11E-03	4.08E-02	3.34E-02	2.26E-02	2.70E-02	1.33E-02	7.95E-03	5.10E-03	1.21E-03	1.20E-04	1.22E-03	0.00E+00	0.00E+00	0.00E+00
373141.00	3757783.00	1.12E-03	6.20E-02	5.44E-02	1.78E-01	4.04E-02	8.54E-03	5.35E-03	1.43E-03	1.40E-04	1.40E-05	1.40E-04	0.00E+00	0.00E+00	0.00E+00
373141.00	3757883.00	1.28E-03	4.08E-02	4.24E-02	3.13E-02	5.02E-02	2.06E-02	8.24E-03	5.23E-03	1.31E-03	1.30E-04	1.33E-03	0.00E+00	0.00E+00	0.00E+00
373141.00	3757983.00	1.12E-03	3

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Gasoline Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
366952.02	3756405.68	0.00E+00	1.30E-04	1.20E-04	1.00E-04	4.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366982.97	3757895.00	0.00E+00	8.00E-05	8.00E-05	7.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366990.71	3756317.13	0.00E+00	1.30E-04	1.20E-04	1.00E-04	4.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367029.39	3756228.58	0.00E+00	1.30E-04	1.20E-04	1.00E-04	4.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367044.19	3757929.41	0.00E+00	8.00E-05	8.00E-05	7.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367068.08	3756140.03	0.00E+00	1.30E-04	1.20E-04	1.00E-04	4.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367106.77	3756051.48	0.00E+00	1.20E-04	1.10E-04	1.00E-04	4.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367145.45	3755962.93	0.00E+00	1.20E-04	1.10E-04	1.00E-04	4.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367163.35	3757937.75	0.00E+00	8.00E-05	8.00E-05	7.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367184.14	3755874.38	0.00E+00	1.20E-04	1.10E-04	9.00E-05	4.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367222.83	3755785.83	0.00E+00	1.20E-04	1.10E-04	1.00E-04	4.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367261.51	3755697.28	0.00E+00	1.10E-04	1.10E-04	9.00E-05	4.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367284.84	3757912.25	0.00E+00	9.00E-05	8.00E-05	8.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367300.20	3755608.73	0.00E+00	1.10E-04	1.00E-04	9.00E-05	4.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367338.88	3755520.18	0.00E+00	1.10E-04	1.00E-04	9.00E-05	4.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367348.39	3757912.82	0.00E+00	9.00E-05	8.00E-05	8.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367377.57	3755431.63	0.00E+00	1.10E-04	1.00E-04	9.00E-05	4.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367401.92	3757982.92	0.00E+00	9.00E-05	8.00E-05	8.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367464.88	3755430.72	0.00E+00	1.20E-04	1.10E-04	9.00E-05	4.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367498.60	3757937.52	0.00E+00	9.00E-05	9.00E-05	8.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367539.80	3757864.76	0.00E+00	9.00E-05	9.00E-05	8.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367552.20	3755429.80	0.00E+00	1.20E-04	1.10E-04	1.00E-04	4.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367596.95	3757879.64	0.00E+00	9.00E-05	9.00E-05	8.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367628.79	3755855.59	0.00E+00	1.00E-04	1.00E-04	9.00E-05	4.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367639.51	3755428.89	0.00E+00	1.20E-04	1.10E-04	1.00E-04	4.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367696.39	3757845.44	0.00E+00	1.00E-04	1.00E-04	9.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367700.81	3758169.46	0.00E+00	8.00E-05	8.00E-05	7.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367707.57	3757896.37	0.00E+00	9.00E-05	9.00E-05	8.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367726.83	3755427.97	0.00E+00	1.40E-04	1.30E-04	1.10E-04	4.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367734.79	3758105.67	0.00E+00	8.00E-05	8.00E-05	7.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367743.72	3758010.21	0.00E+00	8.00E-05	8.00E-05	8.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367785.33	3758200.53	0.00E+00	8.00E-05	8.00E-05	7.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367814.14	3755427.06	0.00E+00	1.40E-04	1.30E-04	1.10E-04	5.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367830.31	3758150.13	0.00E+00	8.00E-05	8.00E-05	7.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367839.73	3758178.15	0.00E+00	8.00E-05	8.00E-05	7.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367874.18	3755433.41	0.00E+00	1.50E-04	1.40E-04	1.10E-04	5.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367912.80	3758112.41	0.00E+00	8.00E-05	8.00E-05	7.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367934.21	3755439.76	0.00E+00	1.50E-04	1.40E-04	1.20E-04	5.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368001.74	3755450.16	0.00E+00	1.60E-04	1.50E-04	1.20E-04	5.00E-05	3.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368067.33	3758044.68	0.00E+00	9.00E-05	9.00E-05	8.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368069.28	3755460.56	0.00E+00	1.60E-04	1.50E-04	1.30E-04	5.00E-05	3.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368136.81	3755470.96	0.00E+00	1.70E-04	1.60E-04	1.30E-04	5.00E-05	3.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368139.37	3758014.68	0.00E+00	1.00E-04	1.00E-04	9.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368217.94	3755478.99	0.00E+00	1.80E-04	1.70E-04	1.40E-04	6.00E-05	3.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368226.20	3757884.68	0.00E+00	1.00E-04	1.00E-04	9.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368310.20	3755477.83	0.00E+00	1.90E-04	1.70E-04	1.40E-04	6.00E-05	3.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368312.17	3757967.29	0.00E+00	1.00E-04	1.00E-04	9.00E-05	4.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368386.06	3757966.42	0.00E+00	1.00E-04	1.00E-04	9.00E-05	4.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368402.45	3755476.67	0.00E+00	1.90E-04	1.80E-04	1.50E-04	6.00E-05	3.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368459.96	3757965.55	0.00E+00	1.10E-04	1.10E-04	9.00E-05	5.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368494.71	3755475.51	0.00E+00	1.90E-04	1.80E-04	1.50E-04	6.00E-05	3.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368533.85	3757964.68	0.00E+00	1.10E-04	1.10E-04	1.00E-04	5.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368533.98	3757935.39	0.00E+00	1.10E-04	1.20E-04	1.00E-04	5.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368586.97	3755474.35	0.00E+00	2.00E-04	1.90E-04	1.60E-04	6.00E-05	3.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368594.27	3757948.47	0.00E+00	1.20E-04	1.20E-04	1.00E-04	5.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368657.87	3757978.44	0.00E+00	1.10E-04	1.10E-04	1.00E-04	5.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368679.22	3755473.19	0.00E+00	2.00E-04	1.90E-04	1.70E-04	7.00E-05	3.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368710.99	3758011.46	0.00E+00	1.00E-04	1.10E-04	1.00E-04	5.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368748.06	3758034.51	0.00E+00	1.10E-04	1.10E-04	1.00E-04	5.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368771.48	3755472.04	0.00E+00	2.00E-04	1.90E-04	1.70E-04	7.00E-05	4.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368806.72	3758070.98	0.00E+00	1.00E-04	1.10E-04	9.00E-05	5.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368863.73	3755470.88	0.00E+00	2.00E-04	1.90E-04	1.70E-04	7.00E-05	4.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368865.39	3758107.46	0.00E+00	1.00E-04	1.10E-04	9.00E-05	5.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368931.37	3758150.49	0.00E+00	1.00E-04	1.00E-04	9.00E-05	5.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368955.99	3755469.72	0.00E+00	2.00E-04	1.90E-04	1.70E-04	7.00E-05	4.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368974.29	3758177.61	0.00E+00	9.00E-05	1.00E-04	9.00E-05	5.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368992.63	3758138.09	0.00E+00	1.00E-04	1.00E-04	9.00E-05	5.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369011.06	3758086.77	0.00E+00	1.00E-04	1.10E-04	1.00E-04	5.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369048.25	3755468.56	0.00E+00	1.90E-04	1.80E-04	1.70E-04	7.00E-05	4.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369097.31	3758131.13	0.00E+00	1.00E-04	1.00E-04	9.00E-05	5.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Gasoline Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
369140.50	3755467.40	0.00E+00	1.80E-04	1.70E-04	1.70E-04	7.00E-05	4.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369216.91	3758091.16	0.00E+00	9.00E-05	1.00E-04	1.00E-04	5.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369232.76	3755466.24	0.00E+00	1.70E-04	1.70E-04	1.70E-04	7.00E-05	4.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369267.76	3758146.04	0.00E+00	9.00E-05	1.00E-04	1.00E-04	5.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369271.60	3758257.04	0.00E+00	7.00E-05	8.00E-05	8.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369323.20	3758086.63	0.00E+00	1.00E-04	1.10E-04	1.00E-04	6.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369328.65	3758304.45	0.00E+00	7.00E-05	8.00E-05	7.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369329.84	3755464.79	0.00E+00	1.70E-04	1.60E-04	1.70E-04	7.00E-05	3.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369342.43	3757939.52	0.00E+00	1.20E-04	1.30E-04	1.30E-04	7.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369386.54	3758429.44	0.00E+00	6.00E-05	7.00E-05	6.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369387.36	3758507.02	0.00E+00	6.00E-05	6.00E-05	5.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369409.11	3758008.60	0.00E+00	1.00E-04	1.20E-04	1.20E-04	6.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369426.92	3755463.35	0.00E+00	1.60E-04	1.60E-04	1.60E-04	7.00E-05	3.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369468.66	3758583.75	0.00E+00	5.00E-05	6.00E-05	5.00E-05	3.00E-05	1.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369524.00	3755461.90	0.00E+00	1.60E-04	1.60E-04	1.60E-04	7.00E-05	3.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369549.13	3758582.89	0.00E+00	6.00E-05	6.00E-05	5.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369621.08	3755460.45	0.00E+00	1.60E-04	1.60E-04	1.60E-04	7.00E-05	3.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369629.61	3758582.03	0.00E+00	6.00E-05	6.00E-05	5.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369710.08	3758581.17	0.00E+00	6.00E-05	7.00E-05	6.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369718.16	3755459.00	0.00E+00	1.60E-04	1.60E-04	1.60E-04	7.00E-05	3.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369787.02	3758286.68	0.00E+00	7.00E-05	9.00E-05	8.00E-05	5.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369788.19	3758398.38	0.00E+00	7.00E-05	8.00E-05	7.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369789.37	3758489.35	0.00E+00	6.00E-05	8.00E-05	7.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369815.24	3755457.56	0.00E+00	1.50E-04	1.50E-04	1.60E-04	7.00E-05	3.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369882.84	3758581.07	0.00E+00	6.00E-05	6.00E-05	5.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369912.32	3755456.11	0.00E+00	1.40E-04	1.50E-04	1.50E-04	7.00E-05	4.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369978.66	3758283.45	0.00E+00	7.00E-05	9.00E-05	8.00E-05	5.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370009.40	3755454.66	0.00E+00	1.30E-04	1.40E-04	1.50E-04	7.00E-05	4.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370056.44	3758282.14	0.00E+00	7.00E-05	8.00E-05	7.00E-05	4.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370106.48	3755453.21	0.00E+00	1.20E-04	1.30E-04	1.40E-04	7.00E-05	3.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370130.90	3758282.44	0.00E+00	7.00E-05	8.00E-05	7.00E-05	4.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370203.56	3755451.77	0.00E+00	1.20E-04	1.30E-04	1.40E-04	7.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370226.81	3758159.47	0.00E+00	9.00E-05	1.10E-04	9.00E-05	6.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370227.55	3758221.46	0.00E+00	8.00E-05	1.00E-04	8.00E-05	5.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370228.30	3758283.44	0.00E+00	8.00E-05	1.00E-04	8.00E-05	5.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370253.14	3758168.84	0.00E+00	9.00E-05	1.10E-04	9.00E-05	6.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370300.64	3755450.32	0.00E+00	1.20E-04	1.30E-04	1.40E-04	7.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370308.97	3758176.51	0.00E+00	9.00E-05	1.10E-04	9.00E-05	6.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370356.87	3758202.23	0

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Gasoline Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
373057.59	3755829.92	0.00E+00	4.00E-05	7.00E-05	5.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373058.79	3755899.65	0.00E+00	5.00E-05	7.00E-05	6.00E-05	5.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373077.68	3757731.38	0.00E+00	5.10E-04	1.40E-03	1.19E-03	1.21E-03	4.80E-04	2.20E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373089.44	3756434.13	0.00E+00	7.00E-05	1.20E-04	1.00E-04	9.00E-05	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373118.11	3756991.19	0.00E+00	1.30E-04	3.20E-04	2.80E-04	3.40E-04	1.70E-04	5.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373137.84	3755759.39	0.00E+00	4.00E-05	6.00E-05	5.00E-05	4.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373138.33	3755829.37	0.00E+00	4.00E-05	7.00E-05	5.00E-05	4.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373138.82	3755899.35	0.00E+00	4.00E-05	7.00E-05	6.00E-05	5.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373159.49	3757731.01	0.00E+00	4.60E-04	1.52E-03	1.79E-03	2.06E-03	8.50E-04	2.20E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373174.45	3756432.91	0.00E+00	7.00E-05	1.20E-04	1.00E-04	9.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373179.17	3757023.66	0.00E+00	1.30E-04	3.00E-04	2.60E-04	3.40E-04	1.90E-04	6.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373213.14	3755758.34	0.00E+00	4.00E-05	6.00E-05	5.00E-05	4.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373236.62	3757073.64	0.00E+00	1.30E-04	3.90E-04	3.40E-04	4.80E-04	2.60E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373241.30	3757730.64	0.00E+00	4.10E-04	1.46E-03	2.15E-03	3.55E-03	1.76E-03	1.90E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373259.45	3756431.68	0.00E+00	7.00E-05	1.10E-04	9.00E-05	9.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373288.44	3755757.29	0.00E+00	4.00E-05	6.00E-05	5.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373303.06	3757072.90	0.00E+00	1.30E-04	3.40E-04	3.10E-04	4.30E-04	2.30E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373317.74	3756432.03	0.00E+00	6.00E-05	1.10E-04	9.00E-05	8.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373323.11	3757730.27	0.00E+00	3.80E-04	1.25E-03	1.91E-03	3.97E-03	2.12E-03	1.70E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373323.28	3757744.87	0.00E+00	3.80E-04	1.19E-03	1.56E-03	2.91E-03	1.50E-03	1.70E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373363.74	3755756.24	0.00E+00	4.00E-05	6.00E-05	5.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373365.13	3755845.96	0.00E+00	4.00E-05	6.00E-05	5.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373366.53	3755935.69	0.00E+00	4.00E-05	7.00E-05	5.00E-05	5.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373367.92	3756025.41	0.00E+00	4.00E-05	7.00E-05	6.00E-05	5.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373369.31	3756115.13	0.00E+00	5.00E-05	8.00E-05	6.00E-05	5.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373369.50	3757072.16	0.00E+00	1.20E-04	3.00E-04	2.80E-04	3.80E-04	2.00E-04	5.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373370.37	3757159.75	0.00E+00	1.40E-04	5.30E-04	4.30E-04	6.80E-04	3.80E-04	7.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373370.71	3756204.86	0.00E+00	5.00E-05	8.00E-05	7.00E-05	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373371.24	3757247.34	0.00E+00	1.60E-04	9.20E-04	1.36E-03	3.40E-03	2.02E-03	1.00E-04	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373372.10	3756294.58	0.00E+00	5.00E-05	9.00E-05	7.00E-05	7.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373372.12	3757334.94	0.00E+00	1.80E-04	1.10E-03	2.25E-03	4.43E-03	2.54E-03	1.30E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373372.99	3757422.53	0.00E+00	2.20E-04	1.45E-03	2.76E-03	5.76E-03	3.40E-03	1.50E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373373.72	3756378.86	0.00E+00	6.00E-05	1.00E-04	8.00E-05	7.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373373.86	3757510.12	0.00E+00	2.60E-04	1.70E-03	3.16E-03	4.06E-03	1.61E-03	1.60E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373374.73	3757597.71	0.00E+00	3.00E-04	1.44E-03	2.88E-03	6.72E-03	3.63E-03	1.60E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373374.83	3756432.37	0.00E+00	6.00E-05	1.00E-04	9.00E-05	8.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373375.60	3757685.31	0.00E+00	3.40E-04	1.26E-03	1.92E-03	3.99E-03	2.09E-03	1.60E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373393.43	3757684.85	0.00E+00	3.30E-04	1.22E-03	1.78E-03	3.63E-03	1.89E-03	1.60E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373394.30	3757744.19	0.00E+00	3.50E-04	1.07E-03	1.30E-03	2.43E-03	1.24E-03	1.60E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367047.63	3761097.01	0.00E+00	2.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370737.54	3762942.92	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371031.93	3758057.86	0.00E+00	1.80E-04	2.10E-04	1.10E-04	7.00E-05	3.00E-05	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371034.38	3758338.88	0.00E+00	1.10E-04	1.20E-04	7.00E-05	5.00E-05	2.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371091.65	3754274.94	0.00E+00	5.00E-05	5.00E-05	4.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371165.78	3758547.83	0.00E+00	1.00E-04	1.00E-04	6.00E-05	4.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372241.00	3757383.00	0.00E+00	8.20E-04	1.24E-03	3.80E-04	2.90E-04	1.50E-04	2.80E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372703.01	3761799.64	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374794.97	3754806.86	0.00E+00	2.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374697.43	3760305.50	0.00E+00	3.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375423.74	3758805.14	0.00E+00	1.10E-04	1.50E-04	8.00E-05	9.00E-05	4.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375433.42	3757541.59	0.00E+00	8.00E-05	1.10E-04	1.00E-04	1.00E-04	6.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378090.06	3758535.33	0.00E+00	5.00E-05	7.00E-05	5.00E-05	5.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368494.88	3756671.28	0.00E+00	4.20E-04	3.70E-04	3.00E-04	1.10E-04	6.00E-05	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370394.80	3756845.73	0.00E+00	2.34E-03	3.01E-03	6.31E-03	3.34E-03	1.43E-03	7.80E-04	2.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368983.23	3754581.57	0.00E+00	7.00E-05	7.00E-05	7.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369216.41	3758422.45	0.00E+00	6.00E-05	7.00E-05	7.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369552.57	3755391.67	0.00E+00	1.40E-04	1.50E-04	1.40E-04	6.00E-05	3.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369574.04	3758166.39	0.00E+00	8.00E-05	9.00E-05	9.00E-05	5.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369581.37	3758516.07	0.00E+00	6.00E-05	7.00E-05	6.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369830.08	3755394.84	0.00E+00	1.40E-04	1.40E-04	1.40E-04	7.00E-05	3.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370114.12	3758186.53	0.00E+00	8.00E-05	1.00E-04	9.00E-05	5.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371021.69	3757820.60	0.00E+00	2.70E-04	3.10E-04	1.50E-04	9.00E-05	4.00E-05	1.00E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366809.77	3757837.27	0.00E+00	8.00E-05	8.00E-05	7.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366843.26	3757860.52	0.00E+00	8.00E-05	8.00E-05	7.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3758500.00	0.00E+00	5.00E-05	5.00E-05	5.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3762500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3763500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3764500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373187.40	3757383.00	0.00E+00	1.70E-04	5.50E-04	7.20E-04	1.11E-03	5.60E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757483.00	0.00E+00	1.90E-04	7.00E-04	9.00E-04	1.24E-03	5.60E-04	1.10E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757583.00	0.00E+00	2.20E-04	7.80E-04	9.60E-04	1.46E-03	6.70E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757683.00	0.00E+00	2.60E-04	7.90E-04	8.80E-04	1.46E-03	7.00E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757783.00	0.00E+00	3.00E-04	7.20E-04	6.90E-04	1.12E-03	5.40E-04	1.30E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757883.00	0.00E+00	3.00E-04	6.30E-04	4.80E-04	7.10E-04	3.30E-04	1.30E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757983.00	0.00E+00	3.10E-04	5.30E-04	3.30E-04	4.30E-04	2.00E-04	1.30E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373687.89	3757980.08	0.00E+00	3.00E-04	5.20E-04	3.40E-04	4.50E-04	2.10E-04	1.20E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3753500.00	0.00E+00	2.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3754500.00	0.00E+00	2.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3755500.00	0.00E+00	3.00E-05	4.00E-05	3.00E-05	3.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3756500.00	0.00E+00	5.00E-05	8.00E-05	7.00E-05	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3757500.00	0.00E+00	1.70E-04	4.70E-04	5.10E-04	7.30E-04	3.40E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3758500.00	0.00E+00	1.90E-04	2.30E-04	1.10E-04	1.10E-04	5.00E-05	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3760500.00	0.00E+00	2.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3761500.00	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3764500.00	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3754500.00	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3755500.00	0.00E+00	2.80E-04	3.20E-04	6.90E-04	1.12E-03	5.40E-04	1.30E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3756500.00	0.00E+00	4.00E-05	5.00E-05	4.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3757500.00	0.00E+00	1.00E-04	1.80E-04	1.50E-04	1.80E-04	9.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3759500.00	0.00E+00	6.00E-05	8.00E-05	4.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3760500.00	0.00E+00	3.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3761500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3762500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3763500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3764500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3753500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3755500.00	0.00E+00	2.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3756500.00	0.00E+00	3.00E-05	4.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3760500.00	0.00E+00	3.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3761500.00	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3762500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3763500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3764500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376084.62	3761776.42	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3755500.00	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3756500.00	0.00E+00	2.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3758500.00	0.00E+00	1.00E-04	1.00E-04	8.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3759500.00	0.00E+00	6.00E-05	7.00E-05	4.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3760500.00	0.00E+00	3.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3761500.00	0.00E+00	2.00E-05	2.00E-05	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3762500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Gasoline Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
372541.00	3756983.00	0.00E+00	2.00E-04	3.80E-04	3.20E-04	3.60E-04	2.10E-04	9.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372641.00	3756983.00	0.00E+00	1.80E-04	4.00E-04	3.30E-04	3.90E-04	2.30E-04	9.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373241.00	3756983.00	0.00E+00	1.20E-04	2.60E-04	2.40E-04	3.00E-04	1.50E-04	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373341.00	3756983.00	0.00E+00	1.10E-04	2.30E-04	2.20E-04	2.70E-04	1.30E-04	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373441.00	3756983.00	0.00E+00	1.00E-04	2.10E-04	1.90E-04	2.30E-04	1.20E-04	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373441.00	3757583.00	0.00E+00	2.70E-04	1.25E-03	2.03E-03	3.79E-03	1.88E-03	1.50E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373441.00	3757683.00	0.00E+00	3.10E-04	1.11E-03	1.50E-03	2.93E-03	1.50E-03	1.50E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373441.00	3757783.00	0.00E+00	3.40E-04	8.90E-04	8.70E-04	1.45E-03	7.10E-04	1.50E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373441.00	3757883.00	0.00E+00	3.60E-04	7.00E-04	4.70E-04	6.40E-04	2.90E-04	1.50E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373441.00	3757983.00	0.00E+00	3.60E-04	5.60E-04	3.00E-04	3.50E-04	1.60E-04	1.50E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757683.00	0.00E+00	2.80E-04	9.20E-04	1.10E-03	1.96E-03	9.80E-04	1.50E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757083.00	0.00E+00	1.10E-04	2.40E-04	2.20E-04	2.80E-04	1.50E-04	5.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757183.00	0.00E+00	1.30E-04	3.60E-04	3.50E-04	5.30E-04	3.00E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757283.00	0.00E+00	1.50E-04	5.10E-04	6.70E-04	1.24E-03	7.00E-04	9.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757383.00	0.00E+00	1.80E-04	6.60E-04	9.90E-04	1.53E-03	7.60E-04	1.10E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757483.00	0.00E+00	2.10E-04	9.00E-04	1.28E-03	1.68E-03	7.10E-04	1.20E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757583.00	0.00E+00	2.50E-04	9.80E-04	1.33E-03	2.13E-03	9.90E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373541.00	3757683.00	0.00E+00	2.80E-04	9.20E-04	1.10E-03	1.96E-03	9.80E-04	1.40E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366455.27	3763213.67	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366669.62	3763342.53	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366671.31	3762769.21	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367494.53	3758314.82	0.00E+00	7.00E-05	7.00E-05	6.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367575.16	3764900.80	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367638.49	3757975.16	0.00E+00	9.00E-05	9.00E-05	8.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367728.62	3761967.19	0.00E+00	2.00E-05	2.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367787.59	3758292.62	0.00E+00	7.00E-05	7.00E-05	6.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367831.34	3763245.91	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367900.00	3758500.00	0.00E+00	6.00E-05	6.00E-05	5.00E-05	3.00E-05	1.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367926.08	3763311.16	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367964.98	3758232.97	0.00E+00	8.00E-05	8.00E-05	7.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367976.37	3763336.74	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367978.91	3758390.10	0.00E+00	7.00E-05	7.00E-05	6.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368188.78	3758591.47	0.00E+00	6.00E-05	6.00E-05	5.00E-05	3.00E-05	1.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368501.11	3761632.38	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368505.49	3758571.22	0.00E+00	6.00E-05	7.00E-05	6.00E-05	3.00E-05	1.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368673.29	3761677.69	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368693.42	3758359.47	0.00E+00	8.00E-05	8.00E-05	7.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368842.52	3761590.39	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368869.11	3754097.89	0.00E+00	5.00E-05	5.00E-05	5.00E-05	3.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368869.83	3765067.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368969.99	3761647.20	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368970.54	3754677.64	0.00E+00	8.00E-05	8.00E-05	8.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369007.11	3762513.11	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369227.99	3762251.91	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369342.37	3754035.62	0.00E+00	8.00E-05	8.00E-05	8.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369456.98	3762567.48	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369504.00	3754702.08	0.00E+00	8.00E-05	8.00E-05	8.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369767.91	3761750.98	0.00E+00	1.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369809.34	3764567.65	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369845.18	3754154.97	0.00E+00	4.00E-05	5.00E-05	5.00E-05	3.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369848.41	3753976.49	0.00E+00	4.00E-05	5.00E-05	5.00E-05	3.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370097.88	3760014.21	0.00E+00	2.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370150.95	3754699.75	0.00E+00	6.00E-05	7.00E-05	7.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370192.96	3758860.70	0.00E+00	5.00E-05	6.00E-05	4.00E-05	3.00E-05	1.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370243.17	3759622.98	0.00E+00	3.00E-05	3.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370246.20	3754243.12	0.00E+00	4.00E-05	5.00E-05	5.00E-05	3.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370290.74	3759464.60	0.00E+00	3.00E-05	4.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370608.78	3762239.97	0.00E+00	2.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370614.80	3762181.53	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370625.96	3763759.08	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370723.56	3763867.78	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370968.58	3759443.63	0.00E+00	3.00E-05	4.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371139.14	3758179.30	0.00E+00	1.50E-04	1.70E-04	9.00E-05	6.00E-05	3.00E-05	7.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371516.05	3762577.75	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371721.40	3759371.61	0.00E+00	4.00E-05	5.00E-05	3.00E-05	3.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371973.81	3758892.65	0.00E+00	7.00E-05	9.00E-05	5.00E-05	4.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372687.72	3759513.01	0.00E+00	5.00E-05	6.00E-05	3.00E-05	3.00E-05	1.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372943.49	3761051.66	0.00E+00	2.00E-05	2.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373546.52	3760907.48	0.00E+00	2.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373736.60	3756503.93	0.00E+00	6.00E-05	9.00E-05	8.00E-05	7.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Gasoline Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
373758.20	3758043.23	0.00E+00	2.80E-04	4.60E-04	2.80E-04	3.60E-04	1.70E-04	1.20E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373781.58	3755802.14	0.00E+00	3.00E-05	5.00E-05	4.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373814.20	3756040.57	0.00E+00	4.00E-05	6.00E-05	5.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373990.06	3753826.14	0.00E+00	2.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374057.73	3758196.53	0.00E+00	2.20E-04	3.40E-04	2.00E-04	2.40E-04	1.10E-04	9.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374270.95	3758673.42	0.00E+00	1.50E-04	1.80E-04	9.00E-05	9.00E-05	4.00E-05	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374561.05	3757642.94	0.00E+00	1.30E-04	2.70E-04	2.30E-04	3.10E-04	1.50E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374688.84	3758984.90	0.00E+00	1.10E-04	1.30E-04	7.00E-05	6.00E-05	3.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374693.96	3758983.17	0.00E+00	1.10E-04	1.30E-04	7.00E-05	6.00E-05	3.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374717.46	3762574.39	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375503.80	3764537.77	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375614.97	3760655.10	0.00E+00	3.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375718.04	3758204.95	0.00E+00	1.00E-04	1.70E-04	1.20E-04	1.40E-04	6.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375902.79	3764940.52	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375908.38	3763938.71	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375920.60	3762083.39	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376709.15	3756388.48	0.00E+00	2.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376814.39	3754856.21	0.00E+00	1.10E-04	1.50E-04	8.00E-05	7.00E-05	3.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377050.15	3761774.29	0.00E+00	2.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377052.34	3761911.90	0.00E+00	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377227.14	3756422.42	0.00E+00	2.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377237.88	3763993.21	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377313.01	3765265.13	0.00E+00	2.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377330.56	3760754.60	0.00E+00	3.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377342.27	3764072.27	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377388.19	3762578.39	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377563.47	3760340.44	0.00E+00	4.00E-05	5.00E-05	3.00E-05	3.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377753.42	3759272.76	0.00E+00	6.00E-05	8.00E-05	5.00E-05	5.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377839.66	3764649.02	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377841.65	3762246.94	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377908.39	3762502.03	0.00E+00	1.00E-05	3.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377916.00	3755241.12	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377924.86	3763642.88	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377967.05	3762224.48	0.00E+00	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378003.52	3753139.05	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378022.11	3755897.25	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378066.59	3761432.90	0.00E+00	2.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378209.66	3764122.39	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378212.33	3753511.52	0

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Gasoline Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
378900.00	3761500.00	0.00E+00	2.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379900.00	3753500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379900.00	3758500.00	0.00E+00	3.00E-05	5.00E-05	3.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
380900.00	3764500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3753500.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3758500.00	0.00E+00	2.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3758500.00	0.00E+00	2.00E-05	2.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3759500.00	0.00E+00	2.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3760500.00	0.00E+00	2.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3761500.00	0.00E+00	2.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368085.00	3755395.00	0.00E+00	1.60E-04	1.50E-04	1.30E-04	5.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368185.00	3755395.00	0.00E+00	1.80E-04	1.60E-04	1.40E-04	6.00E-05	3.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368285.00	3755395.00	0.00E+00	1.70E-04	1.60E-04	1.40E-04	6.00E-05	3.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368385.00	3755395.00	0.00E+00	1.80E-04	1.70E-04	1.40E-04	6.00E-05	3.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368485.00	3755395.00	0.00E+00	1.80E-04	1.70E-04	1.50E-04	6.00E-05	3.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368585.00	3755395.00	0.00E+00	1.90E-04	1.70E-04	1.50E-04	6.00E-05	3.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368685.00	3755395.00	0.00E+00	1.90E-04	1.80E-04	1.60E-04	6.00E-05	3.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368785.00	3755395.00	0.00E+00	1.80E-04	1.70E-04	1.50E-04	7.00E-05	3.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368885.00	3755395.00	0.00E+00	1.80E-04	1.70E-04	1.60E-04	7.00E-05	3.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368985.00	3755395.00	0.00E+00	1.70E-04	1.70E-04	1.60E-04	7.00E-05	3.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369085.00	3755395.00	0.00E+00	1.70E-04	1.60E-04	1.60E-04	7.00E-05	3.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369185.00	3755395.00	0.00E+00	1.60E-04	1.60E-04	1.60E-04	7.00E-05	3.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369285.00	3755395.00	0.00E+00	1.50E-04	1.50E-04	1.50E-04	7.00E-05	3.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369385.00	3755395.00	0.00E+00	1.40E-04	1.50E-04	1.50E-04	6.00E-05	3.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369485.00	3755395.00	0.00E+00	1.40E-04	1.50E-04	1.50E-04	6.00E-05	3.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369585.00	3755395.00	0.00E+00	1.50E-04	1.50E-04	1.40E-04	6.00E-05	3.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369685.00	3755395.00	0.00E+00	1.50E-04	1.50E-04	1.50E-04	6.00E-05	3.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369785.00	3755395.00	0.00E+00	1.40E-04	1.50E-04	1.40E-04	6.00E-05	3.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369885.00	3755395.00	0.00E+00	1.30E-04	1.40E-04	1.40E-04	7.00E-05	3.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369985.00	3755395.00	0.00E+00	1.20E-04	1.30E-04	1.40E-04	7.00E-05	3.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370085.00	3755395.00	0.00E+00	1.20E-04	1.30E-04	1.30E-04	7.00E-05	3.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370185.00	3755395.00	0.00E+00	1.10E-04	1.20E-04	1.30E-04	6.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370285.00	3755395.00	0.00E+00	1.10E-04	1.20E-04	1.30E-04	6.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370377.81	3755313.33	0.00E+00	1.00E-04	1.10E-04	1.20E-04	6.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370477.81	3755313.33	0.00E+00	1.00E-04	1.10E-04	1.20E-04	6.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370577.81	3755313.33	0.00E+00	1.00E-04	1.10E-04	1.10E-04	6.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370677.81	3755313.33	0.00E+00	9.00E-05	1.10E-04	1.00E-04	5.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370777.81	3755313.33	0.00E+00	9.00E-05	1.00E-04	1.00E-04	5.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370877.81	3755313.33	0.00E+00	9.00E-05	1.00E-04	1.00E-04	5.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370977.81	3755313.33	0.00E+00	8.00E-05	1.00E-04	1.00E-04	5.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371077.81	3755313.33	0.00E+00	8.00E-05	9.00E-05	1.00E-04	5.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371177.81	3755313.33	0.00E+00	8.00E-05	9.00E-05	9.00E-05	5.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371277.81	3755313.33	0.00E+00	7.00E-05	9.00E-05	9.00E-05	5.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371377.81	3755313.33	0.00E+00	7.00E-05	8.00E-05	9.00E-05	5.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371477.81	3755313.33	0.00E+00	7.00E-05	8.00E-05	8.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371577.81	3755313.33	0.00E+00	6.00E-05	8.00E-05	8.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371677.81	3755313.33	0.00E+00	6.00E-05	8.00E-05	7.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371777.81	3755313.33	0.00E+00	6.00E-05	7.00E-05	7.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371871.82	3755232.57	0.00E+00	5.00E-05	7.00E-05	6.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371971.82	3755232.57	0.00E+00	5.00E-05	7.00E-05	6.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372071.82	3755232.57	0.00E+00	5.00E-05	6.00E-05	6.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372171.82	3755232.57	0.00E+00	5.00E-05	6.00E-05	6.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372271.82	3755232.57	0.00E+00	5.00E-05	6.00E-05	6.00E-05	4.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372371.82	3755232.57	0.00E+00	4.00E-05	6.00E-05	5.00E-05	4.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372471.82	3755232.57	0.00E+00	4.00E-05	6.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372571.82	3755232.57	0.00E+00	4.00E-05	6.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372671.82	3755232.57	0.00E+00	4.00E-05	6.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372771.82	3755232.57	0.00E+00	4.00E-05	5.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372871.82	3755232.57	0.00E+00	4.00E-05	5.00E-05	4.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372971.82	3755232.57	0.00E+00	3.00E-05	5.00E-05	4.00E-05	3.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_PM10_Annual.xlsx

PM10 Annual Summary by Source

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Gasoline Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
369131.40	3758945.42	0.00E+00	5.00E-05	5.00E-05	4.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370190.78	3758848.26	0.00E+00	5.00E-05	7.00E-05	4.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370747.03	3763937.58	0.00E+00	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370757.72	3755124.52	0.00E+00	9.00E-05	1.00E-04	8.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370946.70	3758260.69	0.00E+00	1.30E-04	1.50E-04	1.20E-04	7.00E-05	3.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371368.79	3754218.82	0.00E+00	4.00E-05	5.00E-05	4.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371786.04	3754168.42	0.00E+00	4.00E-05	5.00E-05	4.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373756.25	3761779.11	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367734.03	3758536.57	0.00E+00	6.00E-05	6.00E-05	5.00E-05	3.00E-05	1.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368069.11	3760165.13	0.00E+00	3.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369125.38	3763600.25	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369225.45	3764227.42	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370236.75	3761140.30	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372218.41	3759157.53	0.00E+00	7.00E-05	8.00E-05	4.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372267.44	3762986.25	0.00E+00	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374498.14	3758643.27	0.00E+00	1.60E-04	2.00E-04	9.00E-05	1.00E-04	5.00E-05	6.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375472.61	3759680.03	0.00E+00	6.00E-05	7.00E-05	4.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375514.38	3757500.61	0.00E+00	8.00E-05	9.00E-05	5.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377395.41	3759189.37	0.00E+00	7.00E-05	9.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366363.62	3757753.10	0.00E+00	8.00E-05	8.00E-05	6.00E-05	3.00E-05	1.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369385.71	3758351.85	0.00E+00	7.00E-05	8.00E-05	7.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369388.19	3758584.61	0.00E+00	6.00E-05	7.00E-05	5.00E-05	3.00E-05	1.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371727.30	3758286.14	0.00E+00	1.90E-04	2.20E-04	9.00E-05	7.00E-05	4.00E-05	7.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371973.18	3757657.97	0.00E+00	5.18E-03	3.62E-03	2.70E-03	1.70E-04	1.50E-04	3.99E-03	2.11E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372028.99	3757558.28	0.00E+00	5.12E-03	3.58E-03	2.68E-04	1.30E-04	1.48E-04	3.12E-03	2.08E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372057.72	3757303.44	1.00E-05	8.40E-04	8.50E-04	3.90E-04	2.40E-04	1.30E-04	2.40E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372058.94	3757365.68	1.00E-05	1.41E-03	1.26E-03	3.70E-04	2.30E-04	1.30E-04	3.30E-04	2.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372114.76	3757419.38	1.00E-05	1.84E-03	1.99E-03	3.50E-04	2.40E-04	1.40E-04	4.90E-04	2.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372149.51	3757302.81	1.00E-05	7.40E-04	8.60E-04	3.90E-04	2.60E-04	1.50E-04	2.00E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366675.72	3757743.67	0.00E+00	9.00E-05	9.00E-05	7.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367105.41	3757963.83	0.00E+00	8.00E-05	9.00E-05	6.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367221.30	3757911.68	0.00E+00	9.00E-05	9.00E-05	7.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367346.43	3757955.57	0.00E+00	9.00E-05	9.00E-05	7.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367457.41	3758010.28	0.00E+00	9.00E-05	9.00E-05	7.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367730.93	3758222.91	0.00E+00	8.00E-05	8.00E-05	6.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367995.30	3758074.68	0.00E+00	9.00E-05	9.00E-05	7.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369154.15	3758166.98	0.00E+00	9.00E-05	1.00E-04	9.00E-05	5.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369214.54	3758209.64	0.00E+00	8.00E-05	1.00E-04	9.00E-05	5.00E-05	2.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369279.67	3758015.34	0.00E+00	1.10E-04	1.20E-04	1.00E-04	6.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369788.09	3758340.35	0.00E+00	8.00E-05	9.00E-05	7.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369790.55	3758580.31	0.00E+00	7.00E-05	8.00E-05	5.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371537.21	3756959.02	1.30E-04	1.09E-03	6.40E-04	7.80E-04	3.70E-04	1.50E-04	1.50E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371736.26	3757371.88	1.00E-05	2.85E-03	2.04E-03	4.20E-04	2.00E-04	1.10E-04	8.70E-04	4.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371795.72	3757393.54	1.00E-05	4.21E-03	2.88E-03	4.00E-04	2.00E-04	1.10E-04	1.04E-03	5.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371926.67	3757658.96	0.00E+00	3.88E-03	3.33E-03	4.60E-04	1.60E-04	1.50E-04	4.61E-03	2.35E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367720.95	3757929.47	0.00E+00	1.00E-04	1.00E-04	8.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366410.42	3757645.39	0.00E+00	9.00E-05	8.00E-05	7.00E-05	3.00E-05	1.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366412.06	3757743.84	0.00E+00	8.00E-05	8.00E-05	7.00E-05	3.00E-05	1.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366449.10	3757556.84	0.00E+00	9.00E-05	9.00E-05	7.00E-05	3.00E-05	1.00E-05

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Gasoline Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
370966.07	3757852.69	0.00E+00	2.60E-04	3.00E-04	1.30E-04	8.00E-05	4.00E-05	9.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370968.09	3757808.70	0.00E+00	2.80E-04	3.20E-04	1.40E-04	9.00E-05	4.00E-05	1.00E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370983.75	3757705.22	0.00E+00	1.20E-04	1.40E-04	1.40E-04	7.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370986.42	3755628.02	0.00E+00	1.10E-04	1.30E-04	1.30E-04	7.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370989.10	3755550.81	0.00E+00	1.00E-04	1.20E-04	1.20E-04	6.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370991.77	3755473.61	0.00E+00	1.00E-04	1.20E-04	1.10E-04	6.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371017.44	3757371.98	0.00E+00	6.70E-04	6.40E-04	3.90E-04	2.00E-04	9.00E-05	3.00E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371039.92	3757778.95	0.00E+00	3.30E-04	3.70E-04	1.50E-04	9.00E-05	5.00E-05	1.10E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371061.56	3756965.39	2.00E-05	9.30E-04	1.36E-03	2.10E-03	6.30E-04	1.40E-04	2.00E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371064.57	3755405.04	0.00E+00	9.00E-05	1.10E-04	1.00E-04	6.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371078.64	3757842.57	0.00E+00	3.20E-04	3.50E-04	1.40E-04	9.00E-05	4.00E-05	1.00E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371116.65	3757378.24	0.00E+00	7.10E-04	7.60E-04	3.80E-04	1.90E-04	9.00E-05	2.70E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371117.35	3757906.19	0.00E+00	3.00E-04	3.30E-04	1.20E-04	8.00E-05	4.00E-05	1.10E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371160.25	3755403.96	0.00E+00	9.00E-05	1.10E-04	1.00E-04	5.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371160.00	3756963.88	5.00E-05	9.10E-04	1.25E-03	2.54E-03	9.20E-04	1.20E-04	1.80E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371173.76	3757954.26	0.00E+00	2.90E-04	3.20E-04	1.20E-04	8.00E-05	4.00E-05	1.10E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371174.47	3757986.09	0.00E+00	2.60E-04	2.90E-04	1.10E-04	8.00E-05	4.00E-05	1.00E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371208.04	3757297.08	0.00E+00	8.40E-04	8.20E-04	4.90E-04	2.40E-04	1.20E-04	3.60E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371268.86	3757379.92	0.00E+00	8.50E-04	9.20E-04	3.90E-04	1.90E-04	9.00E-05	2.60E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371210.97	3757210.00	1.00E-05	8.00E-04	8.20E-04	6.40E-04	2.80E-04	1.10E-04	2.20E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371243.87	3757985.25	0.00E+00	2.80E-04	3.10E-04	1.20E-04	8.00E-05	4.00E-05	1.20E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371255.94	3755402.89	0.00E+00	8.00E-05	1.00E-04	9.00E-05	5.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371258.45	3756962.36	1.30E-04	1.22E-03	1.28E-03	3.17E-03	1.28E-03	1.10E-04	1.70E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371275.69	3757208.66	1.00E-05	8.10E-04	8.40E-04	6.20E-04	2.70E-04	1.10E-04	2.30E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371313.27	3757984.47	0.00E+00	2.80E-04	3.10E-04	1.20E-04	8.00E-05	4.00E-05	1.30E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371348.54	3758024.62	0.00E+00	2.70E-04	2.90E-04	1.10E-04	8.00E-05	4.00E-05	1.20E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371351.62	3755401.81	0.00E+00	8.00E-05	1.00E-04	9.00E-05	5.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371356.75	3757207.46	1.00E-05	8.90E-04	8.90E-04	6.10E-04	2.60E-04	1.10E-04	2.50E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371356.89	3756960.85	2.90E-04	1.95E-03	1.03E-03	2.20E-03	9.00E-04	1.10E-04	1.60E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371402.37	3758061.24	0.00E+00	2.60E-04	2.70E-04	1.10E-04	8.00E-05	4.00E-05	1.10E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371437.81	3757206.27	1.00E-05	9.10E-04	9.50E-04	6.30E-04	2.60E-04	1.10E-04	2.60E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371447.31	3755400.73	0.00E+00	8.00E-05	9.00E-05	9.00E-05	5.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371455.33	3756959.34	2.60E-04	1.74E-03	7.40E-04	1.08E-03	4.70E-04	1.40E-04	1.50E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371474.09	3758110.88	0.00E+00	2.50E-04	2.60E-04	1.00E-04	8.00E-05	4.00E-05	9.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371518.87	3757205.07	1.00E-05	9.60E-04	9.00E-04	6.70E-04	2.50E-04	1.10E-04	2.70E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371537.39	3758154.69	0.00E+00	2.40E-04	2.50E-04	1.00E-04	7.00E-05	4.00E-05	8.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371542.99	3755399.65	0.00E+00	7.00E-05	9.00E-05	8.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371599.93	3757203.87	1.00E-05	9.60E-04	8.80E-04	6.60E-04	2.50E-04	1.10E-04	2.80E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371600.70	3758198.51	0.00E+00	2.20E-04	2.40E-04	1.00E-04	7.00E-05	4.00E-05	7.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371613.52	3756957.47	7.00E-05	8.10E-04	5.80E-04	6.30E-04	3.20E-04	1.60E-04	1.40E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371638.68	3755398.58	0.00E+00	7.00E-05	9.00E-05	8.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371652.22	3756956.31	6.00E-05	7.20E-04	5.60E-04	5.80E-04	3.00E-04	1.60E-04	1.40E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371664.00	3758242.33	0.00E+00	2.10E-04	2.30E-04	9.00E-05	7.00E-05	4.00E-05	7.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371678.83	3757376.47	1.00E-05	3.91E-03	2.58E-03	4.40E-04	2.00E-04	1.10E-04	8.80E-04	4.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371680.94	3757202.68	1.00E-05	9.50E-04	8.50E-04	6.40E-04	2.40E-04	1.10E-04	2.80E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371683.71	3757291.78	1.00E-05	1.50E-03	1.21E-03	4.70E-04	2.20E-04	1.00E-04	4.50E-04	2.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371734.36	3755397.50	0.00E+00	7.00E-05	9.00E-05	7.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371750.66	3756954.80	4.00E-05	5.90E-04	5.20E-04	4.80E-04	2.80E-04	1.60E-04	1.40E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371767.81	3758230.27	0.00E+00	2.30E-04	2.50E-04	1.00E-04	8.00E-05	4.00E-05	8.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371801.04	3755399.23	0.00E+00	7.00E-05	8.00E-05	7.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371812.25	3757364.20	1.00E-05	2.23E-03	1.27E-03	4.40E-04	2.00E-04	1.10E-04	7.30E-04	3.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371825.62	3758161.92	0.00E+00	2.80E-04	3.00E-04	1.10E-04	9.00E-05	5.00E-05	1.00E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371849.10	3756953.29	2.00E-05	5.00E-04	4.80E-04	4.20E-04	2.60E-04	1.70E-04	1.30E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371866.03	3757363.09	1.00E-05	2.48E-03	1.52E-03	3.90E-04	2.10E-04	1.10E-04	6.10E-04	3.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371867.72	3755400.96	0.00E+00	7.00E-05	8.00E-05	7.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371895.02	3758059.68	0.00E+00	4.10E-04	4.10E-04	1.30E-04	1.00E-04	5.00E-05	1.40E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371898.90	3758134.17	0.00E+00	3.30E-04	3.30E-04	1.20E-04	9.00E-05	5.00E-05	1.10E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371909.58	3757435.59	0.00E+00	6.86E-03	5.41E-03	3.10E-04	2.00E-04	1.20E-04	1.11E-03	6.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371916.85	3757398.54	1.00E-05	3.54E-03	2.20E-03	3.70E-04	2.10E-04	1.20E-04	6.70E-04	4.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371917.20	3757362.27	1.00E-05	2.23E-03	1.34E-03	3.80E-04	2.10E-04	1.20E-04	5.00E-04	3.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371927.01	3757742.18	0.00E+00	2.77E-03	2.30E-03	2.50E-04	1.50E-04	1.00E-04	1.30E-03	7.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371928.06	3757790.69	0.00E+00	2.05E-03	1.71E-03	2.50E-04	1.40E-04	8.00E-05	7.40E-04	4.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371934.40	3755402.69	0.00E+00	6.00E-05	8.00E-05	7.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371934.40	3757852.44	0.00E+00	1.34E-03	1.15E-03	2.00E-04	1.30E-04	8.00E-05	4.30E-04	2.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371937.61	3757919.43	0.00E+00	8.50E-04	7.80E-04	1.70E-04	1.20E-04	7.00E-05	2.80E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371940.82	3757986.42	0.00E+00	5.80E-04	5.60E-04	1.50E-04	1.10E-04	6.00E-05	2.00E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371944.03	3758053.41	0.00E+00	4.30E-04	4.40E-04	1.30E-04	1.00E-04	6.00E-05	1.50E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371947.54	3756951.78	2.00E-05	4.30E-04	4.50E-04	3.70E-04	2.60E-04	1.80E-04	1.20E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371954.98	3757424.18	1.00E-05	3.90E-03	2.90E-03	3.60E-04	2.10E-04	1.20E-04	7.80E-04	5.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372007.70	3757423.57	1.00E-05	2.89E-03	2.31E-03	3.50E-04	2.20E-04	1.20E-04	6.60E-04	4.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Gasoline Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
372031.48	3757755.88	0.00E+00	6.73E-03	3.66E-03	3.30E-04	1.60E-04	1.00E-04	1.28E-03	6.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372033.85	3755399.05	0.00E+00	6.00E-05	8.00E-05	6.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372045.99	3756950.26	1.00E-05	3.70E-04	4.20E-04	3.40E-04	2.60E-04	1.90E-04	1.10E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372060.42	3757422.83	1.00E-05	2.27E-03	2.11E-03	3.50E-04	2.30E-04	1.30E-04	5.70E-04	3.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372097.97	3757754.97	0.00E+00	1.18E-02	5.67E-03	3.50E-04	1.70E-04	1.10E-04	1.26E-03	6.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372114.62	3757440.24	1.00E-05	2.10E-03	2.12E-03	3.40E-04	2.40E-04	1.40E-04	6.20E-04	3.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372133.29	3755395.42	0.00E+00	6.00E-05	8.00E-05	6.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372144.43	3756948.75	1.00E-05	3.30E-04	4.00E-04	3.20E-04	2.70E-04	2.00E-04	1.00E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372152.01	3757362.33	1.00E-05	1.08E-03	1.21E-03	3.70E-04	2.60E-04	1.50E-04	2.70E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372153.80	3757418.83	1.00E-05	1.62E-03	1.96E-03	3.50E-04	2.50E-04	1.50E-04	4.50E-04	2.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372154.47	3757439.86	1.00E-05	1.84E-03	2.27E-03	3.40E-04	2.50E-04	1.40E-04	5.60E-04	2.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372156.97	3757518.41	0.00E+00	2.46E-03	2.35E-03	3.20E-04	2.30E-04	1.40E-04	1.19E-03	6.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372159.47	3757596.96	0.00E+00	4.59E-03	3.14E-03	3.00E-04	2.20E-04	1.40E-04	1.75E-03	8.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372161.97	3757675.51	0.00E+00	1.29E-02	6.19E-03	2.90E-04	2.00E-04	1.30E-04	1.68E-03	8.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372164.46	3757754.06	0.00E+00	9.85E-03	4.83E-03	3.60E-04	1.80E-04	1.10E-04	1.16E-03	5.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372232.73	3755391.79	0.00E+00	6.00E-05	7.00E-05	6.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372242.87	3756947.24	1.00E-05	2.90E-04	3.80E-04	3.00E-04	2.90E-04	2.20E-04	9.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372232.18	3755388.13	0.00E+00	5.80E-05	7.00E-05	6.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372341.31	3756945.73	1.00E-05	2.60E-04	3.70E-04	3.00E-04	3.10E-04	2.50E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372410.73	3755381.99	0.00E+00	5.00E-05	7.00E-05	6.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372439.76	3756944.21	1.00E-05	2.40E-04	3.70E-04	2.90E-04	3.30E-04	2.80E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372489.28	3755375.83	0.00E+00	5.00E-05	7.00E-05	6.00E-05	4.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372538.20	3756942.70	0.00E+00	2.10E-04	3.70E-04	2.90E-04	3.50E-04	3.20E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372567.83	3755369.67	0.00E+00	5.00E-05	7.00E-05	6.00E-05	4.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372621.24	3755365.65	0.00E+00	5.00E-05	7.00E-05	6.00E-05	4.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372627.96	3756505.77	1.00E-05	1.20E-04	1.70E-04	1.20E-04	1.10E-04	7.00E-05	4.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372628.35	3756589.05	0.00E+00	1.30E-04	1.90E-04	1.40E-04	1.30E-04	8.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372630.81	3757026.03	0.00E+00	2.20E-04	4.60E-04	3.80E-04	5.10E-04	8.20E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372632.23	3757120.50	1.00E-05	2.50E-04	6.50E-04	6.40E-04	9.20E-04	1.64E-03	1.60E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372632.53	3756752.34	0.00E+00	1.50E-04	2.50E-04	1.90E-04	1.80E-04	1.20E-04	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372634.59	3756846.76	0.00E+00	1.70E-04	3.40E-04	2.30E-04	2.40E-04	1.80E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372634.70	3757211.58	1.00E-05	3.00E-04	8.90E-04	8.40E-04	1.59E-03	1.36E-03	2.70E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372636.64	3756941.19	0.00E+00	2.00E-04	3.70E-04	2.90E-04	3.50E-04	3.10E-04	7.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372650.02	3757248.61	1.00E-05	3.30E-04	1.08E-03	9.20E-04	2.11E-03	1.71E-03	3.40E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372671.90	3757332.14	0.00E+00	4.00E-04	2.15E-03	9.70E-04	2.12E-03	1.64E-03	3.60E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372672.36	3756975.42	0.00E+00	2.00E-04	4.00E-04	3.20E-04	4.10E-04	3.90E-04	8.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372672.57	3757018.04	0.00E+00	2.10E-04	4.60E-04	3.70E-04	5.00E-04	5.80E-04	9.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372692.63	3756858.53	0.00E+00	1.20E-04	2.30E-04	1.40E-04	1.30E-04	8.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372694.60	3756751

Pollutant: PM10, Concentrations, Emissions Source: Gasoline Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
373641.00	3757383.00	0.00E+00	1.90E-04	5.70E-04	7.00E-04	1.07E-03	7.60E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757483.00	0.00E+00	2.20E-04	7.30E-04	8.60E-04	1.20E-03	7.00E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757583.00	0.00E+00	2.50E-04	8.30E-04	9.20E-04	1.42E-03	7.80E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757683.00	0.00E+00	2.90E-04	8.40E-04	8.30E-04	1.43E-03	8.00E-04	1.20E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757783.00	0.00E+00	3.10E-04	7.70E-04	6.40E-04	1.11E-03	6.10E-04	1.30E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757883.00	0.00E+00	3.30E-04	6.70E-04	4.50E-04	7.20E-04	3.80E-04	1.30E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373641.00	3757983.00	0.00E+00	3.40E-04	5.60E-04	3.10E-04	4.40E-04	2.30E-04	1.30E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373687.89	3757980.08	0.00E+00	3.20E-04	5.60E-04	3.10E-04	4.60E-04	2.40E-04	1.20E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3753500.00	0.00E+00	2.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3754500.00	0.00E+00	2.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3755500.00	0.00E+00	3.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3756500.00	0.00E+00	6.00E-05	8.00E-05	7.00E-05	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3757500.00	0.00E+00	1.90E-04	4.90E-04	4.90E-04	7.10E-04	4.20E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3758500.00	0.00E+00	2.10E-04	2.50E-04	1.00E-04	1.10E-04	6.00E-05	8.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3760500.00	0.00E+00	3.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3761500.00	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373900.00	3764500.00	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3754500.00	0.00E+00	2.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3755500.00	0.00E+00	2.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3756500.00	0.00E+00	4.00E-05	5.00E-05	4.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3757500.00	0.00E+00	1.10E-04	1.90E-04	1.40E-04	1.80E-04	1.10E-04	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3759500.00	0.00E+00	7.00E-05	8.00E-05	4.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3760500.00	0.00E+00	3.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3761500.00	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3762500.00	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3763500.00	0.00E+00	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374900.00	3764500.00	0.00E+00	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3753500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3755500.00	0.00E+00	2.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3756500.00	0.00E+00	3.00E-05	4.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3760500.00	0.00E+00	3.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3761500.00	0.00E+00	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3762500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3763500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375900.00	3764500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376084.62	3761776.42	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3755500.00	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3756500.00	0.00E+00	3.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3757500.00	0.00E+00	8.00E-05	1.10E-04	7.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3759500.00	0.00E+00	6.00E-05	8.00E-05	4.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3760500.00	0.00E+00	4.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3761500.00	0.00E+00	2.00E-05	2.00E-05	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3762500.00	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376900.00	3764500.00	0.00E+00	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377900.00	3753500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377900.00	3754500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377900.00	3755500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377900.00	3756500.00	0.00E+00	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377900.00	3757500.00	0.00E+00	4.00E-05	5.00E-05	3.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377900.00	3759500.00	0.00E+00	6.00E-05	8.00E-05	4.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377900.00	3760500.00	0.00E+00	4.00E-05	5.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377900.00	3761500.00	0.00E+00	2.00E-05	3.00E-05	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377900.00	3762500.00	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377900.00	3763500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377900.00	3764500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378528.59	3764156.44	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378900.00	3753500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378900.00	3755500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378900.00	3756500.00	0.00E+00	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378900.00	3757500.00	0.00E+00	3.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378900.00	3758500.00	0.00E+00	5.00E-05	6.00E-05	4.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378900.00	3759500.00	0.00E+00	5.00E-05	7.00E-05	4.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378900.00	3760500.00	0.00E+00	4.00E-05	5.00E-05	3.00E-05	3.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378900.00	3762500.00	0.00E+00	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378900.00	3763500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378900.00	3764500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379900.00	3755500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379900.00	3756500.00	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Gasoline Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
379900.00	3757500.00	0.00E+00	3.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379900.00	3759500.00	0.00E+00	4.00E-05	6.00E-05	3.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379900.00	3760500.00	0.00E+00	4.00E-05	5.00E-05	3.00E-05	3.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379900.00	3761500.00	0.00E+00	3.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379900.00	3762500.00	0.00E+00	2.00E-05	2.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379900.00	3763500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379900.00	3764500.00	0.00E+00	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
380900.00	3753500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
380900.00	3754500.00	0.00E+00	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
380900.00	3755500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
380900.00	3756500.00	0.00E+00	2.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
380900.00	3757500.00	0.00E+00	2.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
380900.00	3758500.00	0.00E+00	3.00E-05	4.00E-05	3.00E-05	3.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
380900.00	3759500.00	0.00E+00	4.00E-05	5.00E-05	3.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
380900.00	3760500.00	0.00E+00	3.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3754500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3755500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3756500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3757500.00	0.00E+00	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3759500.00	0.00E+00	3.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3760500.00	0.00E+00	2.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3761500.00	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3762500.00	0.00E+00	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3763500.00	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3764500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
382900.00	3753500.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
382900.00	3754500.00	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
382900.00	3755500.00	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
382900.00	3756500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
382900.00	3757500.00	0.00E+00	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
382900.00	3758500.00	0.00E+00	2.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
382900.00	3759500.00	0.00E+00	3.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
382900.00	3760500.00	0.00E+00	3.00E-05	4.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
382900.00	3761500.00	0.00E+00	2.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
382900.00	3762500.00	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
382900.00	3763500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
382900.00	3764500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3753500.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3754500.00	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3755500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Gasoline Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
371041.00	3757283.00	0.00E+00	7.00E-04	7.20E-04	5.10E-04	2.50E-04	1.10E-04	3.30E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371141.00	3757083.00	2.00E-05	8.10E-04	9.20E-04	1.07E-03	4.00E-04	1.30E-04	2.00E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371141.00	3757183.00	1.00E-05	7.70E-04	8.20E-04	7.10E-04	3.10E-04	1.20E-04	2.10E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371141.00	3757283.00	0.00E+00	7.50E-04	7.80E-04	5.10E-04	2.40E-04	1.10E-04	2.50E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371150.00	3757970.99	0.00E+00	2.70E-04	3.00E-04	1.10E-04	8.00E-05	4.00E-05	1.00E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371241.00	3757083.00	2.00E-05	7.90E-04	8.70E-04	1.04E-03	4.00E-04	1.20E-04	2.00E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371241.00	3757183.00	1.00E-05	7.80E-04	8.20E-04	6.90E-04	2.90E-04	1.10E-04	2.20E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371341.00	3757083.00	2.00E-05	8.10E-04	8.70E-04	9.80E-04	3.90E-04	1.10E-04	1.90E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371341.00	3757183.00	1.00E-05	8.40E-04	8.60E-04	6.60E-04	2.80E-04	1.10E-04	2.40E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371441.00	3757083.00	3.00E-05	9.60E-04	9.00E-04	9.10E-04	3.80E-04	1.20E-04	1.90E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371441.00	3757183.00	1.00E-05	1.01E-03	9.50E-04	6.50E-04	2.80E-04	1.40E-04	2.50E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371539.56	3757095.63	3.00E-05	8.30E-04	7.70E-04	7.50E-04	3.30E-04	1.20E-04	2.00E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371540.36	3757178.31	1.00E-05	9.00E-04	8.50E-04	6.70E-04	2.70E-04	1.10E-04	2.50E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371614.33	3757093.32	3.00E-05	7.90E-04	7.20E-04	6.70E-04	3.10E-04	1.30E-04	2.00E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371615.15	3757177.59	2.00E-05	8.90E-04	8.20E-04	6.50E-04	2.60E-04	1.10E-04	2.50E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371641.00	3757083.00	4.00E-05	7.80E-04	6.90E-04	6.40E-04	3.00E-04	1.30E-04	1.90E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371641.00	3757183.00	2.00E-05	9.00E-04	8.20E-04	6.40E-04	2.60E-04	1.10E-04	2.60E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371741.00	3757083.00	3.00E-05	7.10E-04	6.40E-04	6.50E-04	2.80E-04	1.40E-04	1.90E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371741.00	3757183.00	2.00E-05	8.60E-04	7.80E-04	5.80E-04	2.50E-04	1.10E-04	2.60E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371741.00	3757283.00	1.00E-05	1.32E-03	1.09E-03	4.70E-04	2.20E-04	1.10E-04	4.20E-04	2.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371841.00	3757083.00	2.00E-05	6.30E-04	5.90E-04	4.80E-04	2.70E-04	1.50E-04	1.70E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371841.00	3757183.00	2.00E-05	7.50E-04	7.10E-04	5.40E-04	2.40E-04	1.20E-04	2.40E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371841.00	3757283.00	1.00E-05	1.06E-03	9.20E-04	4.40E-04	2.20E-04	1.10E-04	3.80E-04	2.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371900.00	3753500.00	0.00E+00	3.00E-05	3.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371900.00	3754500.00	0.00E+00	4.00E-05	5.00E-05	4.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371900.00	3760500.00	0.00E+00	2.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371900.00	3761500.00	0.00E+00	1.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371900.00	3764500.00	0.00E+00	1.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371941.00	3757083.00	5.40E-04	5.50E-04	4.30E-04	2.60E-04	1.50E-04	1.60E-04	8.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371941.00	3757183.00	1.00E-05	6.40E-04	6.40E-04	5.30E-04	2.40E-04	1.30E-04	2.10E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371941.00	3757283.00	1.00E-05	1.19E-03	1.04E-03	2.20E-04	1.40E-04	8.00E-05	4.20E-04	2.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371941.00	3757383.00	1.00E-05	3.44E-03	1.65E-03	3.70E-04	2.10E-04	1.20E-04	5.30E-04	3.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372041.00	3757083.00	1.00E-05	4.70E-04	5.20E-04	4.00E-04	2.60E-04	1.70E-04	1.40E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372041.00	3757183.00	1.00E-05	5.50E-04	6.10E-04	5.10E-04	2.50E-04	1.40E-04	1.80E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372041.00	3757283.00	1.00E-05	7.60E-04	7.80E-04	4.10E-04	2.40E-04	1.30E-04	2.40E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372041.00	3757383.00	1.00E-05	1.76E-03	1.49E-03	3.60E-04	2.30E-04	1.30E-04	3.90E-04	2.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372041.00	3757783.00	0.00E+00	4.07E-03	2.52E-03	3.70E-04	1.60E-04	1.00E-04	9.80E-04	5.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372041.00	3757883.00	0.00E+00	1.19E-03	1.04E-03	2.20E-04	1.40E-04	8.00E-05	4.20E-04	2.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372041.00	3757983.00	0.00E+00	6.40E-04	6.30E-04	1.60E-04	1.20E-04	7.00E-05	2.30E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372141.00	3757083.00	1.00E-05	4.10E-04	5.00E-04	3.70E-04	2.80E-04	1.80E-04	1.30E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372141.00	3757183.00	1.00E-05	4.80E-04	6.00E-04	4.90E-04	2.70E-04	1.60E-04	1.50E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372141.00	3757283.00	1.00E-05	6.70E-04	7.90E-04	4.00E-04	2.60E-04	1.50E-04	1.90E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372141.00	3757383.00	0.00E+00	5.87E-03	3.18E-03	4.00E-04	1.70E-04	1.10E-04	9.90E-04	5.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372141.00	3757883.00	0.00E+00	1.32E-03	1.11E-03	2.20E-04	1.50E-04	9.00E-05	4.80E-04	2.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372141.00	3757983.00	0.00E+00	7.00E-04	6.80E-04	1.70E-04	1.30E-04	7.00E-05	2.60E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372241.00	3757083.00	1.00E-05	3.60E-04	4.90E-04	3.60E-04	3.00E-04	2.10E-04	1.10E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372241.00	3757183.00	1.00E-05	4.30E-04	6.10E-04	4.90E-04	3.00E-04	1.90E-04	1.30E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372241.00	3757283.00	1.00E-05	6.00E-04	8.20E-04	4.00E-04	3.00E-04	1.80E-04	1.70E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372241.00	3757483.00	0.00E+00	1.58E-03	1.95E-03	3.40E-04	2.70E-04	1.60E-04	6.50E-04	3.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372241.00	3757583.00	0.00E+00	2.55E-03	2.11E-03	3.10E-04	2.40E-04	1.50E-04	1.16E-03	5.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372241.00	3757683.00	0.00E+00	6.03E-03	3.35E-03	3.00E-04	2.20E-04	1.40E-04	1.25E-03	6.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372241.00	3757783.00	0.00E+00	4.58E-03	2.60E-03	4.20E-04	1.90E-04	1.10E-04	8.90E-04	4.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372341.00	3757083.00	1.00E-05	3.20E-04	4.90E-04	3.70E-04	3.50E-04	2.60E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372341.00	3757183.00	1.00E-05	3.90E-04	6.30E-04	5.00E-04	3.60E-04	2.50E-04	1.20E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372341.00	3757283.00	1.00E-05	5.20E-04	8.80E-04	4.20E-04	3.60E-04	2.40E-04	1.50E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372341.00	3757383.00	1.00E-05	8.00E-04	1.48E-03	3.90E-04	3.50E-04	2.20E-04	2.50E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372341.00	3757483.00	0.00E+00	1.18E-03	1.87E-03	3.70E-04	3.20E-04	1.90E-04	4.90E-04	2.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372341.00	3757583.00	0.00E+00	1.81E-03	1.76E-03	3.30E-04	2.80E-04	1.70E-04	8.00E-04	4.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372341.00	3757683.00	0.00E+00	3.18E-03	2.16E-03	3.20E-04	2.50E-04	1.50E-04	9.20E-04	4.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372341.00	3757783.00	0.00E+00	3.09E-03	1.95E-03	4.30E-04	2.10E-04	1.20E-04	7.50E-04	3.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372441.00	3757083.00	1.00E-05	2.90E-04	5.00E-04	3.90E-04	4.20E-04	3.50E-04	1.00E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372441.00	3757183.00	1.00E-05	3.50E-04	6.70E-04	5.60E-04	4.70E-04	3.50E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372441.00	3757283.00	1.00E-05	4.60E-04	1.00E-03	4.60E-04	4.80E-04	3.40E-04	1.50E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372441.00	3757383.00	1.00E-05	6.60E-04	1.78E-03	4.50E-04	4.50E-04	3.00E-04	2.30E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372441.00	3757483.00	0.00E+00	9.50E-04	2.11E-03	4.20E-04	3.40E-04	2.50E-04	3.90E-04	1.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372441.00	3757583.00	0.00E+00	1.37E-03	1.71E-03	3.70E-04	3.40E-04	2.00E-04	5.90E-04	2.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372441.00	3757683.00	0.00E+00	2.06E-03	1.70E-03	3.40E-04	2.80E-04	1.60E-04	6.90E-04	3.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372441.00	3757783.00	0.00E+00	2.18E-03	1.55E-03	4.40E-04	2.40E-04	1.30E-04	6.20E-04	3.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372441.00	3757883.00	0.00E+00	1.53E-03	1.14E-03	2.60E-04	2.00E-04	1.10E-04	4.70E-04	2.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372441.00	3757983.00	0.00E+00	9.10E-04	7.70E-04	2.00E-04	1.70E-04	9.00E-05	3.20E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_PM10_Annual.xlsx

PM10 Annual Summary by Source

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Gasoline Exhaust, Units: ug/m3, Emissions Averaging: Peak Year Average Day, with Mitigation

UTM X	UTM Y	2017_M	2018_M	2019_M	2020_M	2021_M	2022_M	2023_M	2024_M	2025_M	2026_M	2027_M	2028_M	2029_M	2030_M
372541.00	3757083.00	1.00E-05	2.60E-04	5.20E-04	4.50E-04	5.40E-04	6.10E-04	1.10E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372541.00	3757183.00	1.00E-05	3.10E-04	7.20E-04	8.50E-04	7.10E-04	6.10E-04	1.50E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372541.00	3757283.00	1.00E-05	4.00E-04	1.18E-03	5.60E-04	7.70E-04	5.70E-04	1.80E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372541.00	3757383.00	0.00E+00	5.60E-04	2.73E-03	6.10E-04	6.70E-04	4.50E-04	2.30E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372541.00	3757483.00	0.00E+00	8.00E-04	3.47E-03	6.00E-04	5.30E-04	3.30E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372541.00	3757583.00	0.00E+00	1.09E-03	1.87E-03	4.30E-04	4.20E-04	2.40E-04	4.60E-04	2.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372541.00	3757683.00	0.00E+00	1.49E-03	1.48E-03	3.70E-04	3.40E-04	1.80E-04	5.40E-04	2.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372541.00	3757783.00	0.00E+00	1.63E-03	1.31E-03	4.60E-04	2.80E-04	1.40E-04	5.20E-04	2.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372541.00	3757883.00	0.00E+00	1.33E-03	1.05E-03	2.70E-04	2.30E-04	1.10E-04	4.20E-04	2.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372541.00	3757983.00	0.00E+00	9.10E-04	7.70E-04	2.00E-04	1.80E-04	9.00E-05	3.10E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372641.00	3757183.00	0.00E+00	5.00E-04	4.73E-03	5.60E-04	1.52E-03	8.50E-04	2.70E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372641.00	3757483.00	0.00E+00	6.90E-04	9.41E-03	1.25E-03	7.60E-04	4.40E-04	2.90E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372641.00	3757583.00	0.00E+00	8.90E-04	2.10E-03	5.10E-04	5.40E-04	2.80E-04	3.70E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372641.00	3757683.00	0.00E+00	1.15E-03	1.41E-03	4.10E-04	4.30E-04	2.10E-04	4.30E-04	2.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372641.00	3757783.00	0.00E+00	1.27E-03	1.18E-03	5.20E-04	3.40E-04	1.60E-04	4.30E-04	2.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372641.00	3757883.00	0.00E+00	1.13E-03	9.70E-04	2.90E-04	2.60E-04	1.20E-04	3.80E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372641.00	3757983.00	0.00E+00	8.60E-04	7.50E-04	2.10E-04	2.00E-04	1.00E-04	2.90E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372741.00	3757783.00	0.00E+00	1.03E-03	1.11E-03	5.10E-04	5.00E-04	1.80E-04	3.70E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372741.00	3757883.00	0.00E+00	9.70E-04	9.10E-04	3.00E-04	3.30E-04	1.40E-04	3.30E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372741.00	3757983.00	0.00E+00	7.90E-04	7.30E-04	2.20E-04	2.20E-04	1.10E-04	2.70E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372841.00	3757783.00	0.00E+00	8.50E-04	1.09E-03	4.50E-04	6.80E-04	2.20E-04	3.10E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372841.00	3757883.00	0.00E+00	8.30E-04	8.60E-04	3.20E-04	3.90E-04	1.60E-04	2.90E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372841.00	3757983.00	0.00E+00	7.20E-04	7.00E-04	2.30E-04	2.40E-04	1.20E-04	2.50E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372843.75	3758083.00	0.00E+00	6.50E-04	6.70E-04	2.30E-04	2.70E-04	1.30E-04	2.30E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372857.79	3758454.91	0.00E+00	1.50E-04	2.90E-04	2.20E-04	2.40E-04	1.60E-04	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372900.00	3758500.00	0.00E+00	2.00E-04	2.30E-04	8.00E-05	4.00E-05	7.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372900.00	3763500.00	0.00E+00	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372900.00	3764500.00	0.00E+00	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372941.00	3757083.00	0.00E+00	7.20E-04	1.13E-03	5.10E-04	8.00E-04	2.70E-04	2.70E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372941.00	3757183.00	0.00E+00	5.20E-04	8.50E-04	1.30E-04	4.90E-04	2.10E-04	1.80E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372941.00	3757283.00	0.00E+00	6.50E-04	6.70E-04	2.30E-04	2.70E-04	1.30E-04	2.30E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373035.50	3755453.68	0.00E+00	4.00E-05	6.00E-05	1.30E-04	3.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373035.50	3755652.82	0.00E+00	5.00E-05	7.00E-05	1.40E-04	4.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373041.00	3757783.00	0.00E+00	6.20E-04	1.14E-03	6.00E-04	9.60E-04	3.50E-04	2.40E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373041.00	3757883.00	0.00E+00	6.30E-04	8.20E-04	3.40E-04	4.60E-04	2.10E-04	2.30E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373041.00	3757983.00	0.00E+00	5.90E-04	6.50E-04	2.40E-04	2.80E-04	1.40E-04	2.10E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373141.00	3757783.00	0.00E+00	5.60E-04	1.51E-03	1.20E-04	4.90E-04	2.10E-04	4.40E-04	2.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373141.00	3757883.00	0.00E+00	5.60E-04	8.10E-04	3.60E-04	5.00E-04	2.30E-04	2.10E-04	1.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373141.00	3757983.00	0.00E+00	5.30E-

Pollutant: PM10, Concentrations, Emissions Source: Tire Wear, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
366952.02	3756405.68	0.00E+00	5.90E-04	7.20E-04	7.00E-04	3.00E-04	1.20E-04	1.50E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366982.97	3757895.00	0.00E+00	3.60E-04	4.60E-04	4.60E-04	2.40E-04	1.00E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366990.71	3756317.13	0.00E+00	5.90E-04	7.10E-04	6.90E-04	3.00E-04	1.20E-04	1.50E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367029.39	3756228.58	0.00E+00	5.70E-04	7.00E-04	6.70E-04	2.90E-04	1.20E-04	1.50E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367044.19	3757929.47	0.00E+00	3.50E-04	4.50E-04	4.50E-04	2.30E-04	1.00E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367068.08	3756140.03	0.00E+00	5.60E-04	6.80E-04	6.50E-04	2.80E-04	1.10E-04	1.50E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367106.77	3756051.48	0.00E+00	5.40E-04	6.60E-04	6.30E-04	2.80E-04	1.10E-04	1.40E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367145.45	3755962.93	0.00E+00	5.30E-04	6.40E-04	6.20E-04	2.70E-04	1.10E-04	1.40E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367163.35	3757937.75	0.00E+00	3.50E-04	4.60E-04	4.60E-04	2.40E-04	1.00E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367184.14	3755874.38	0.00E+00	5.20E-04	6.30E-04	6.00E-04	2.70E-04	1.10E-04	1.40E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367222.83	3755785.83	0.00E+00	5.00E-04	6.10E-04	4.50E-04	2.60E-04	1.10E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367261.51	3755697.28	0.00E+00	4.80E-04	6.00E-04	5.80E-04	2.60E-04	1.10E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367284.84	3757912.25	0.00E+00	3.60E-04	4.70E-04	4.80E-04	2.50E-04	1.00E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367300.20	3755608.73	0.00E+00	4.70E-04	5.80E-04	5.60E-04	2.60E-04	1.00E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367338.88	3755520.18	0.00E+00	4.60E-04	5.70E-04	5.50E-04	2.50E-04	1.00E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367348.39	3757912.82	0.00E+00	3.70E-04	4.80E-04	4.80E-04	2.50E-04	1.10E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367377.57	3755431.63	0.00E+00	4.60E-04	5.70E-04	5.50E-04	2.50E-04	1.00E-04	1.20E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367401.92	3757882.92	0.00E+00	3.60E-04	4.70E-04	4.50E-04	2.40E-04	1.00E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367464.88	3755430.72	0.00E+00	4.90E-04	6.00E-04	5.80E-04	2.70E-04	1.10E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367498.60	3757937.52	0.00E+00	3.60E-04	4.80E-04	4.80E-04	2.50E-04	1.10E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367539.80	3757864.76	0.00E+00	4.00E-04	5.20E-04	5.20E-04	2.70E-04	1.10E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367552.20	3755429.80	0.00E+00	5.20E-04	6.30E-04	6.10E-04	2.80E-04	1.10E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367596.95	3757879.64	0.00E+00	3.90E-04	5.10E-04	5.20E-04	2.70E-04	1.10E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367628.79	3757855.59	0.00E+00	4.00E-04	5.30E-04	5.40E-04	2.80E-04	1.20E-04	1.10E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367639.51	3755428.89	0.00E+00	5.40E-04	6.60E-04	6.20E-04	2.90E-04	1.20E-04	1.40E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367696.39	3757845.44	0.00E+00	4.10E-04	5.40E-04	5.50E-04	2.90E-04	1.20E-04	1.10E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367700.81	3758169.46	0.00E+00	3.40E-04	4.40E-04	4.10E-04	2.20E-04	9.00E-05	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367707.57	3757896.37	0.00E+00	3.90E-04	5.20E-04	5.20E-04	2.70E-04	1.20E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367726.83	3755427.97	0.00E+00	5.90E-04	7.20E-04	6.80E-04	3.10E-04	1.30E-04	1.50E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367734.79	3758105.67	0.00E+00	3.50E-04	4.60E-04	4.30E-04	2.30E-04	1.00E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367743.72	3758010.21	0.00E+00	3.70E-04	4.80E-04	4.70E-04	2.50E-04	1.10E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367785.33	3758200.53	0.00E+00	3.50E-04	4.60E-04	4.10E-04	2.20E-04	9.00E-05	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367814.14	3755427.06	0.00E+00	6.30E-04	7.60E-04	7.20E-04	3.20E-04	1.30E-04	1.60E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367830.31	3758150.13	0.00E+00	3.60E-04	4.70E-04	4.40E-04	2.30E-04	1.00E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367839.73	3758178.15	0.00E+00	3.60E-04	4.70E-04	4.30E-04	2.20E-04	1.00E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367874.18	3755433.41	0.00E+00	6.60E-04	8.00E-04	7.60E-04	3.40E-04	1.40E-04	1.60E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367912.80	3758112.41	0.00E+00	3.90E-04	5.10E-04	4.60E-04	2.30E-04	1.00E-04	1.00E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367934.21	3755439.76	0.00E+00	6.90E-04	8.30E-04	7.80E-04	3.50E-04	1.40E-04	1.70E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368001.74	3755450.16	0.00E+00	7.20E-04	8.70E-04	8.20E-04	3.60E-04	1.50E-04	1.80E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368067.33	3758044.68	0.00E+00	4.30E-04	5.60E-04	5.00E-04	2.60E-04	1.10E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368069.28	3755460.56	0.00E+00	7.60E-04	9.10E-04	8.60E-04	3.80E-04	1.60E-04	1.90E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368136.81	3755470.96	0.00E+00	8.00E-04	9.50E-04	9.00E-04	4.00E-04	1.60E-04	2.00E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368139.37	3758014.68	0.00E+00	4.30E-04	5.70E-04	5.30E-04	2.80E-04	1.20E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368217.94	3757478.99	0.00E+00	8.40E-04	1.00E-03	9.50E-04	4.20E-04	1.70E-04	2.10E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368226.20	3757884.68	0.00E+00	4.60E-04	6.10E-04	5.60E-04	2.80E-04	1.20E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368310.20	3755477.83	0.00E+00	8.70E-04	1.04E-03	9.90E-04	4.40E-04	1.80E-04	2.30E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368312.17	3757967.29	0.00E+00	4.80E-04	6.30E-04	5.70E-04	2.90E-04	1.30E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368386.06	3757966.42	0.00E+00	4.70E-04	6.20E-04	5.70E-04	3.10E-04	1.30E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368402.45	3755476.67	0.00E+00	9.00E-04	1.07E-03	1.03E-03	4.60E-04	1.80E-04	2.40E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368459.96	3757965.55	0.00E+00	4.70E-04	6.20E-04	5.90E-04	3.20E-04	1.40E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368494.71	3755475.51	0.00E+00	9.20E-04	1.07E-03	1.07E-03	4.80E-04	1.90E-04	2.50E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368533.85	3757964.68	0.00E+00	4.90E-04	6.40E-04	6.20E-04	3.40E-04	1.50E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368533.98	3757935.39	0.00E+00	5.00E-04	6.60E-04	6.40E-04	3.50E-04	1.50E-04	1.40E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368586.97	3755474.35	0.00E+00	9.30E-04	1.12E-03	1.10E-03	4.90E-04	2.00E-04	2.60E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368594.27	3757948.47	0.00E+00	5.00E-04	6.60E-04	6.40E-04	3.60E-04	1.50E-04	1.40E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368657.87	3757978.44	0.00E+00	4.90E-04	6.50E-04	6.40E-04	3.60E-04	1.50E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368679.22	3755473.19	0.00E+00	9.40E-04	1.14E-03	1.13E-03	5.10E-04	2.00E-04	2.70E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368710.99	3758011.46	0.00E+00	4.90E-04	6.40E-04	6.10E-04	3.50E-04	1.50E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368748.06	3758034.51	0.00E+00	4.90E-04	6.50E-04	6.20E-04	3.50E-04	1.50E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368771.48	3755472.04	0.00E+00	9.30E-04	1.14E-03	1.15E-03	5.20E-04	2.00E-04	2.70E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368806.72	3758070.98	0.00E+00	4.90E-04	6.50E-04	6.20E-04	3.40E-04	1.40E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368863.73	3755470.88	0.00E+00	9.10E-04	1.13E-03	1.15E-03	5.30E-04	2.00E-04	2.70E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368865.39	3758107.46	0.00E+00	4.80E-04	6.40E-04	6.10E-04	3.30E-04	1.40E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368931.37	3758150.49	0.00E+00	4.60E-04	6.20E-04	6.00E-04	3.30E-04	1.40E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368955.99	3755469.72	0.00E+00	8.80E-04	1.10E-03	1.14E-03	5.30E-04	2.00E-04	2.70E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368974.29	3758177.61	0.00E+00	4.30E-04	6.00E-04	5.80E-04	3.40E-04	1.40E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368992.63	3758138.09	0.00E+00	4.60E-04	6.30E-04	6.10E-04	3.50E-04	1.50E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369011.06	3758086.77	0.00E+00	4.90E-04	6.70E-04	6.40E-04	3.60E-04	1.50E-04	1.40E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369048.25	3755468.56	0.00E+00	8.30E-04	1.06E-03	1.12E-03	5.30E-04	2.00E-04	2.70E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369097.31	3758131.13	0.00E+00	4.40E-04	6.20E-04	6.10E-04	3.60E-04	1.60E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Tire Wear, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
369140.50	3755467.40	0.00E+00	7.70E-04	1.00E-03	1.08E-03	5.20E-04	2.00E-04	2.50E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369216.91	3758091.16	0.00E+00	4.30E-04	6.20E-04	6.30E-04	3.90E-04	1.70E-04	1.30E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369232.76	3755466.24	0.00E+00	7.10E-04	9.50E-04	1.04E-03	5.10E-04	1.90E-04	2.40E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369267.76	3758146.04	0.00E+00	3.90E-04	5.80E-04	6.10E-04	3.90E-04	1.70E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369271.60	3758257.04	0.00E+00	3.30E-04	4.90E-04	5.20E-04	3.30E-04	1.40E-04	1.00E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369323.20	3758086.63	0.00E+00	4.20E-04	6.20E-04	6.50E-04	4.10E-04	1.80E-04	1.30E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369328.65	3758304.45	0.00E+00	3.10E-04	4.70E-04	4.90E-04	3.10E-04	1.30E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369329.84	3755464.79	0.00E+00	6.90E-04	9.30E-04	1.01E-03	4.90E-04	1.90E-04	2.20E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369342.43	3757939.52	0.00E+00	5.20E-04	7.50E-04	7.90E-04	4.90E-04	2.10E-04	1.60E-04	6.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369386.54	3758429.44	0.00E+00	2.70E-04	4.20E-04	4.20E-04	2.60E-04	1.10E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369387.36	3758507.02	0.00E+00	2.50E-04	3.90E-04	3.80E-04	2.20E-04	1.00E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369409.11	3758008.60	0.00E+00	4.50E-04	6.80E-04	7.10E-04	4.60E-04	2.00E-04	1.40E-04	5.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369426.92	3755463.35	0.00E+00	7.00E-04	9.40E-04	1.01E-03	4.80E-04	1.80E-04	2.00E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369468.66	3758583.75	0.00E+00	2.40E-04	3.70E-04	3.40E-04	2.10E-04	9.00E-05	7.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369524.00	3755461.90	0.00E+00	7.30E-04	9.80E-04	1.02E-03	4.70E-04	1.80E-04	1.90E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369549.13	3758582.89	0.00E+00	2.60E-04	3.90E-04	3.60E-04	2.20E-04	1.00E-04	7.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369621.08	3755460.45	0.00E+00	7.50E-04	1.00E-03	1.02E-03	4.70E-04	1.80E-04	2.00E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369629.61	3758582.03	0.00E+00	2.50E-04	3.90E-04	3.80E-04	2.20E-04	1.00E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369710.08	3758581.17	0.00E+00	2.90E-04	4.30E-04	3.80E-04	2.40E-04	1.00E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369718.16	3755459.00	0.00E+00	7.40E-04	9.90E-04	1.01E-03	4.90E-04	1.90E-04	2.10E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369787.02	3758286.68	0.00E+00	3.60E-04	5.50E-04	5.20E-04	3.20E-04	1.40E-04	1.00E-04	4.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369788.19	3758398.38	0.00E+00	3.30E-04	5.00E-04	4.60E-04	2.90E-04	1.30E-04	1.00E-04	4.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
369789.37	3758489.35	0.00E+00	3.10E-04	4.70E-04	4.20E-04	2.70E-04	1.20E-04	9.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369815.24	3755457.56	0.00E+00	6.90E-04	9.40E-04	9.90E-04	5.00E-04	2.00E-04	2.10E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369882.84	3755456.17	0.00E+00	6.40E-04	8.70E-04	9.40E-04	5.10E-04	2.00E-04	2.00E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369912.32	3755456.11	0.00E+00	6.20E-04	8.70E-04	9.40E-04	5.10E-04	2.10E-04	2.00E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369978.66	3758283.45	0.00E+00	3.40E-04	5.40E-04	5.00E-04	3.40E-04	1.50E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370009.40	3755454.66	0.00E+00	5.50E-04	8.00E-04	9.00E-04	5.10E-04	2.10E-04	1.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370056.44	3758282.14	0.00E+00	3.20E-04	5.20E-04	4.80E-04	3.40E-04	1.50E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370106.48	3755453.21	0.00E+00	5.20E-04	7.80E-04	8.80E-04	5.10E-04	2.10E-04	1.60E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370130.90	3758282.44	0.00E+00	3.20E-04	5.20E-04	4.70E-04	3.40E-04	1.50E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370203.56	3755451.77	0.00E+00	5.30E-04	7.90E-04	8.80E-04	4.90E-04	2.00E-04	1.50E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370226.81	3758159.47	0.00E+00	3.70E-04	6.20E-04	5.50E-04	3.90E-04	1.70E-04	1.20E-04	5.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370227.55	3758221.46	0.00E+00	3.60E-04	5.80E-04	5.20E-04	3.60E-04	1.60E-04	1.10E-04	5.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370228.30	3758283.44	0.00E+00	3.40E-04	5.50E-04	4.80E-04	3.40E-04	1.50E-04	1.10E-04	5.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370253.14	3758168.84	0.00E+00	3.80E-04	6.20E-04	5.50E-04	3.80E-04	1.70E-04	1.20E-04	5.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370300.64	3755450.32	0.00E+00	5.40E-04	8.20E-04	8.80E-04	4.70E-04	1.90E-04	1.40E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370308.97	3758176.51	0.00E+00	3.80E-04	6.10E-04	5.40E-04	3.80E-04	1.70E-04	1.20E-04	5.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370356.87

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Tire Wear, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
373057.59	3755829.92	1.20E-04	3.10E-04	3.90E-04	4.10E-04	2.50E-04	1.40E-04	6.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373058.79	3755899.65	1.60E-04	3.60E-04	4.10E-04	3.70E-04	2.70E-04	1.40E-04	7.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373077.68	3757731.38	1.00E-05	2.52E-03	7.31E-03	6.69E-03	7.24E-03	2.89E-03	9.40E-04	4.40E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373089.44	3756434.13	1.20E-04	4.30E-04	7.00E-04	5.80E-04	5.00E-04	2.90E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373118.11	3756991.19	1.00E-05	6.50E-04	1.95E-03	1.95E-03	1.87E-03	1.22E-03	3.20E-04	1.20E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373137.84	3755759.39	4.00E-05	2.10E-04	3.60E-04	4.40E-04	2.30E-04	1.20E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373138.33	3755829.37	8.00E-05	2.70E-04	3.80E-04	3.90E-04	2.50E-04	1.30E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373138.82	3755899.35	1.20E-04	3.10E-04	4.00E-04	3.70E-04	2.60E-04	1.40E-04	6.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373159.49	3757731.01	1.00E-05	2.26E-03	8.40E-03	1.07E-02	1.18E-02	5.12E-03	8.40E-04	3.90E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373174.45	3756432.91	1.20E-04	4.10E-04	6.60E-04	5.50E-04	4.70E-04	2.70E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373179.17	3757023.66	1.00E-05	6.30E-04	1.94E-03	1.91E-03	2.02E-03	1.33E-03	2.90E-04	1.10E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373213.14	3755758.34	4.00E-05	2.10E-04	3.50E-04	4.00E-04	2.30E-04	1.20E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373236.62	3757073.64	1.00E-05	6.20E-04	2.04E-03	2.17E-03	2.34E-03	1.62E-03	2.60E-04	9.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373241.30	3757730.64	1.00E-05	2.03E-03	8.07E-03	1.43E-02	2.35E-02	1.41E-02	7.60E-04	3.50E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373259.45	3756431.68	1.00E-04	3.90E-04	6.20E-04	5.30E-04	4.50E-04	2.60E-04	1.00E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373288.44	3757757.29	4.00E-05	2.00E-04	3.50E-04	3.70E-04	2.20E-04	1.20E-04	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373303.06	3757072.90	1.00E-05	5.90E-04	1.76E-03	1.94E-03	2.09E-03	1.58E-03	2.40E-04	9.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373317.74	3756432.03	9.00E-05	3.60E-04	5.90E-04	5.10E-04	4.30E-04	2.50E-04	1.00E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373323.11	3757730.27	1.00E-05	1.85E-03	6.90E-03	1.23E-02	2.34E-02	1.50E-02	7.00E-04	3.10E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373323.28	3757744.87	1.00E-05	1.88E-03	6.48E-03	9.26E-03	1.62E-02	9.79E-03	7.10E-04	3.20E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373363.74	3755756.24	2.00E-05	1.80E-04	3.40E-04	3.50E-04	2.20E-04	1.20E-04	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373365.13	3755845.96	1.10E-04	2.80E-04	3.60E-04	3.40E-04	2.30E-04	1.30E-04	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373366.53	3755935.69	1.30E-04	3.20E-04	3.90E-04	3.40E-04	2.50E-04	1.40E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373367.92	3756025.41	1.50E-04	3.40E-04	4.10E-04	3.50E-04	2.70E-04	1.50E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373369.31	3756115.13	1.60E-04	3.60E-04	4.20E-04	3.70E-04	3.00E-04	1.70E-04	7.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373369.50	3757072.16	1.00E-05	5.70E-04	1.56E-03	1.74E-03	1.85E-03	2.08E-03	2.30E-04	8.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373370.37	3757159.75	1.00E-05	6.30E-04	2.43E-03	2.68E-03	3.14E-03	3.48E-03	2.70E-04	8.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373370.71	3756204.86	1.60E-04	3.80E-04	4.60E-04	3.90E-04	3.30E-04	1.80E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373371.24	3757247.34	1.00E-05	7.10E-04	4.26E-03	1.01E-02	1.99E-02	1.62E-02	3.70E-04	9.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373372.10	3756294.58	1.10E-04	3.40E-04	5.00E-04	4.20E-04	3.60E-04	2.00E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373372.12	3757334.94	1.00E-05	8.30E-04	4.40E-03	1.49E-02	3.62E-02	1.90E-02	4.80E-04	1.10E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373372.99	3757422.53	1.00E-05	1.00E-03	8.26E-03	1.60E-02	1.40E-02	6.86E-03	5.50E-04	1.40E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373373.72	3756378.86	8.00E-05	3.40E-04	5.40E-04	4.70E-04	4.00E-04	2.30E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373373.86	3757510.12	1.00E-05	1.21E-03	9.95E-03	1.85E-02	2.21E-02	1.18E-02	5.80E-04	1.80E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373374.73	3757597.71	1.00E-05	1.43E-03	8.16E-03	1.83E-02	3.82E-02	2.61E-02	6.00E-04	2.30E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373374.83	3756432.37	7.00E-05	3.40E-04	5.70E-04	5.00E-04	4.30E-04	2.40E-04	9.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373375.60	3757685.31	1.00E-05	1.64E-03	7.12E-03	1.13E-02	2.10E-02	1.41E-02	6.40E-04	2.70E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373393.43	3757684.85	1.00E-05	1.61E-03	6.88E-03	1.04E-02	1.91E-02	1.24E-02	6.30E-04	2.70E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
373394.30	3757744.19	1.00E-05	1.73E-03	5.92E-03	7.53E-03	1.32E-02	7.98E-03	6.60E-04	2.90E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
367047.63	3761097.01	0.00E+00	9.00E-05	1.30E-04	1.10E-04	7.00E-05	3.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370737.54	3762942.92	0.00E+00	3.00E-05	6.00E-05	5.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371031.93	3758057.86	0.00E+00	8.40E-04	1.15E-03	6.70E-04	4.40E-04	2.10E-04	3.00E-04	1.40E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371034.38	3758338.88	0.00E+00	4.90E-04	7.10E-04	4.50E-04	3.20E-04	1.50E-04	1.90E-04	9.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371091.65	3754274.94	0.00E+00	2.00E-04	3.00E-04	2.90E-04	1.70E-04	7.00E-05	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371165.78	3758547.83	0.00E+00	1.20E-04	2.70E-04	3.10E-04	2.70E-04	1.30E-04	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372241.00	3757383.00	2.00E-05	4.13E-03	8.37E-03	5.53E-03	1.73E-03	9.00E-04	8.90E-04	5.40E-04	2.00E-05	2.00E-05	5.00E-05	0.00E+00	0.00E+00	0.00E+00
372703.01	3761799.64	0.00E+00	6.00E-05	9.00E-05	6.00E-05	5.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374794.97	3754806.86	0.00E+00	9.00E-05	1.70E-04	1.50E-04	1.10E-04	6.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374697.43	3760305.50	0.00E+00	1.40E-04	1.90E-04	1.20E-04	1.00E-04	5.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375423.74	3758805.14	0.00E+00	5.10E-04	7.90E-04	4.90E-04	4.70E-04	2.40E-04	1.80E-04	8.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375433.42	3757541.59	1.00E-05	3.60E-04	7.40E-04	6.20E-04	6.30E-04	3.70E-04	1.30E-04	5.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
378090.06	3758535.33	0.00E+00	2.40E-04	4.00E-04	3.00E-04	2.80E-04	1.50E-04	9.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368494.88	3756671.28	0.00E+00	1.92E-03	2.23E-03	2.08E-03	8.40E-04	3.30E-04	4.40E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370394.80	3756845.73	1.00E-05	1.43E-02	2.47E-02	4.68E-02	3.05E-02	9.50E-03	4.68E-03	1.22E-03	1.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
368983.23	3754581.57	0.00E+00	3.00E-04	4.20E-04	4.40E-04	2.30E-04	1.00E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369216.41	3758422.45	0.00E+00	2.70E-04	4.10E-04	4.30E-04	2.70E-04	1.20E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369552.57	3755391.67	0.00E+00	6.80E-04	9.40E-04	9.30E-04	4.10E-04	1.60E-04	1.70E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369574.04	3758166.39	0.00E+00	3.60E-04	5.60E-04	5.20E-04	3.60E-04	1.50E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369581.37	3758516.07	0.00E+00	2.70E-04	4.10E-04	3.80E-04	2.30E-04	1.00E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369830.08	3755394.84	0.00E+00	6.30E-04	8.70E-04	9.10E-04	4.80E-04	2.00E-04	1.90E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370114.12	3758186.53	0.00E+00	3.50E-04	5.80E-04	5.40E-04	3.80E-04	1.70E-04	1.20E-04	5.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371021.69	3757820.60	0.00E+00	1.19E-03	1.63E-03	9.40E-04	6.00E-04	2.80E-04	3.90E-04	1.70E-04	1.00E-05	1.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00
366809.77	3757837.27	0.00E+00	3.70E-04	4.70E-04	4.70E-04	2.30E-04	1.00E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366843.26	3757860.52	0.00E+00	3.60E-04	4.60E-04	4.60E-04	2.30E-04	1.00E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3758500.00	0.00E+00	2.20E-04	2.90E-04	2.70E-04	1.50E-04	7.00E-05	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3762500.00	0.00E+00	5.00E-05	8.00E-05	7.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3763500.00	0.00E+00	4.00E-05	6.00E-05	5.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366900.00	3764500.00	0.00E+00	3.00E-05	5.00E-05	4.00E-05	3.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367341.24	3754427.01	0.00E+00	3.00E-04	4.40E-04	4.40E-04	2.30E-04	1.00E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366982.41	3757958.65	0.00E+00	3.40E-04	4.40E-04	4.40E-04	2.30E-04	1.00E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367163.97	3758028.80	0.00E+00	3.20E-04	4.20E-04	4.20E-04	2.20E-04	9.00E-05	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_PM10_Annual.xlsx

PM10 Annual Summary by Source

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Tire Wear, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
367275.38	3757999.92	0.00E+00	3.30E-04	4.40E-04	4.40E-04	2.30E-04	1.00E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367395.04	3758065.94	0.00E+00	3.20E-04	4.20E-04	4.10E-04	2.20E-04	9.00E-05	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367880.40	3758145.84	0.00E+00	3.70E-04	4.90E-04	4.40E-04	2.30E-04	1.00E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367900.00	3761500.00	0.00E+00	7.00E-05	1.10E-04	9.00E-05	7.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367900.00	3762500.00	0.00E+00	5.00E-05	8.00E-05	7.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367900.00	3764500.00	0.00E+00	3.00E-05	5.00E-05	4.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368068.97	3758068.94	0.00E+00	4.20E-04	5.50E-04	5.00E-04	2.50E-04	1.10E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368182.48	3758015.85	0.00E+00	4.40E-04	5.80E-04	5.40E-04	2.80E-04	1.20E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368416.83	3757988.39	0.00E+00	4.50E-04	6.00E-04	5.70E-04	3.10E-04	1.30E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368577.94	3757979.23	0.00E+00	4.80E-04	6.40E-04	6.20E-04	3.50E-04	1.50E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368764.68	3758079.93	0.00E+00	4.70E-04	6.30E-04	6.00E-04	3.30E-04	1.40E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3754500.00	0.00E+00	2.80E-04	4.00E-04	4.20E-04	2.20E-04	9.00E-05	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3759500.00	0.00E+00	1.50E-04	2.20E-04	1.80E-04	1.10E-04	5.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3761500.00	0.00E+00	6.00E-05	1.00E-04	9.00E-05	7.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3762500.00	0.00E+00	5.00E-05	8.00E-05	7.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3763500.00	0.00E+00	4.00E-05	6.00E-05	5.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368900.00	3764500.00	0.00E+00	3.00E-05	5.00E-05	4.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368944.10	3758186.12	0.00E+00	4.30E-04	5.90E-04	5.60E-04	3.30E-04	1.40E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369206.25	3758147.26	0.00E+00	3.90E-04	5.80E-04	5.90E-04	3.70E-04	1.60E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369268.49	3758066.34	0.00E+00	4.30E-04	6.30E-04	6.50E-04	4.10E-04	1.70E-04	1.30E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369333.85	3757999.43	0.00E+00	4.70E-04	6.90E-04	7.20E-04	4.50E-04	1.90E-04	1.40E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-05	0.00E+00
369425.60	3758641.99	0.00E+00	2.30E-04	3.60E-04	3.30E-04	2.10E-04	9.00E-05	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369599.53	3758634.67	0.00E+00	2.60E-04	3.90E-04	3.40E-04	2.10E-04	9.00E-05	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369775.29	3758632.83	0.00E+00	2.80E-04	4.10E-04	3.50E-04	2.20E-04	1.00E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369834.07	3758629.23	0.00E+00	2.90E-04	4.20E-04	3.60E-04	2.30E-04	1.00E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3754500.00	0.00E+00	2.50E-04	3.70E-04	4.10E-04	2.40E-04	1.00E-04	8.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3758500.00	0.00E+00	3.00E-04	4.60E-04	4.10E-04	2.70E-04	1.20E-04	9.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3759500.00	0.00E+00	1.60E-04	2.40E-04	1.90E-04	1.40E-04	7.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3761500.00	0.00E+00	6.00E-05	1.00E-04	9.00E-05	7.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3762500.00	0.00E+00	4.00E-05	7.00E-05	5.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3763500.00	0.00E+00	3.00E-05	5.00E-05	4.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369900.00	3764500.00	0.00E+00	2.00E-05	4.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370780.52	3758327.50	0.00E+00	4.60E-04	6.90E-04	6.60E-04	3.10E-04	1.50E-04	1.70E-04	8.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
370900.00	3759500.00	0.00E+00	1.20E-04	2.00E-04	1.60E-04	1.40E-04	7.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370900.00	3760500.00	0.00E+00	2.00E-05	3.00E-05	1.00E-04	8.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370900.00	3762500.00	0.00E+00	4.00E-05	7.00E-05	6.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370900.00	3763500.00	0.00E+00	3.00E-05	5.00E-05	4.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370900.00	3764500.00	0.00E+00	2.00E-

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Tire Wear, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
372541.00	3757983.00	2.00E-05	1.05E-03	2.40E-03	2.43E-03	2.75E-03	3.34E-03	5.10E-04	1.90E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372641.00	3757983.00	2.00E-05	9.80E-04	2.53E-03	2.59E-03	2.51E-03	2.96E-03	5.70E-04	2.10E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372341.00	3757983.00	1.00E-05	5.80E-04	1.56E-03	1.69E-03	1.65E-03	1.10E-03	2.70E-04	1.00E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
372341.00	3757983.00	1.00E-05	5.40E-04	1.37E-03	1.52E-03	1.44E-03	1.03E-03	2.50E-04	1.00E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
372441.00	3757983.00	1.00E-05	5.20E-04	1.22E-03	1.38E-03	1.28E-03	9.50E-04	2.40E-04	1.00E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
372441.00	3757583.00	1.00E-05	1.30E-03	7.08E-03	1.17E-02	2.03E-02	1.34E-02	5.60E-04	2.00E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372441.00	3757683.00	1.00E-05	1.52E-03	6.31E-03	8.69E-03	1.55E-02	1.07E-02	6.00E-04	2.50E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372441.00	3757783.00	1.00E-05	1.70E-03	4.93E-03	4.90E-03	7.88E-03	4.60E-03	6.40E-04	2.90E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372441.00	3757883.00	1.00E-05	1.81E-03	3.70E-03	2.47E-03	3.16E-03	1.63E-03	6.60E-04	3.10E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
372341.00	3757983.00	1.00E-05	1.81E-03	2.90E-03	1.60E-03	1.80E-03	9.20E-04	6.40E-04	3.00E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
372541.00	3757683.00	1.00E-05	1.37E-03	5.20E-03	6.40E-03	1.07E-02	6.45E-03	6.20E-04	2.20E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
372541.00	3757083.00	1.00E-05	5.10E-04	1.20E-03	1.31E-03	1.32E-03	1.15E-03	2.00E-04	7.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
372541.00	3757183.00	1.00E-05	5.80E-04	1.63E-03	1.90E-03	2.16E-03	2.28E-03	2.40E-04	7.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
372541.00	3757283.00	1.00E-05	6.70E-04	2.36E-03	3.94E-03	5.97E-03	7.30E-03	3.10E-04	9.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
372541.00	3757383.00	1.00E-05	8.00E-04	3.28E-03	5.72E-03	7.72E-03	7.17E-03	4.00E-04	1.10E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
372541.00	3757483.00	1.00E-05	9.80E-04	4.87E-03	6.92E-03	8.01E-03	4.46E-03	4.70E-04	1.40E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
372541.00	3757583.00	1.00E-05	1.18E-03	5.56E-03	7.52E-03	1.13E-02	6.59E-03	5.10E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
372541.00	3757683.00	1.00E-05	1.37E-03	5.20E-03	6.40E-03	1.07E-02	6.45E-03	6.20E-04	2.20E-04	1.00E-05	1.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00
366455.27	3763213.67	0.00E+00	4.00E-05	7.00E-05	6.00E-05	5.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366669.62	3763342.53	0.00E+00	4.00E-05	6.00E-05	6.00E-05	4.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366671.31	3762769.21	0.00E+00	5.00E-05	8.00E-05	7.00E-05	5.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367494.53	3758314.82	0.00E+00	2.90E-04	3.90E-04	3.60E-04	1.90E-04	8.00E-05	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367575.16	3764900.80	0.00E+00	3.00E-05	4.00E-05	4.00E-05	3.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367638.49	3757975.16	0.00E+00	3.60E-04	4.80E-04	4.70E-04	2.50E-04	1.10E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367728.62	3761967.19	0.00E+00	2.00E-05	3.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367787.59	3758292.62	0.00E+00	3.40E-04	4.40E-04	3.90E-04	2.10E-04	9.00E-05	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367831.34	3763245.91	0.00E+00	4.00E-05	6.00E-05	5.00E-05	4.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367900.00	3758500.00	0.00E+00	2.50E-04	3.40E-04	3.40E-04	2.10E-04	9.00E-05	7.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367926.08	3763311.16	0.00E+00	4.00E-05	6.00E-05	5.00E-05	4.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367964.98	3758232.97	0.00E+00	3.50E-04	4.60E-04	4.30E-04	2.30E-04	1.00E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367976.37	3763336.74	0.00E+00	4.00E-05	6.00E-05	5.00E-05	4.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367978.91	3758390.10	0.00E+00	2.80E-04	3.80E-04	3.80E-04	2.20E-04	1.00E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368188.78	3758591.47	0.00E+00	2.70E-04	3.70E-04	3.60E-04	2.00E-04	8.00E-05	7.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368501.11	3761632.38	0.00E+00	6.00E-05	1.00E-04	9.00E-05	7.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368505.49	3758571.22	0.00E+00	2.90E-04	3.90E-04	3.70E-04	2.00E-04	9.00E-05	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368673.29	3761677.69	0.00E+00	6.00E-05	1.00E-04	8.00E-05	7.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368693.42	3758559.47	0.00E+00	3.60E-04	4.90E-04	4.70E-04	2.60E-04	1.10E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368842.32	3761590.39	0.00E+00	6.00E-05	9.00E-05	8.00E-05	7.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368869.11	3754097.89	0.00E+00	2.20E-04	3.10E-04	3.20E-04	1.70E-04	7.00E-05	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368869.83	3765067.00	0.00E+00	3.00E-05	4.00E-05	4.00E-05	3.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368969.99	3761647.20	0.00E+00	6.00E-05	1.00E-04	9.00E-05	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368970.54	3754677.64	0.00E+00	3.20E-04	4.50E-04	4.80E-04	2.50E-04	1.00E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369007.11	3762513.11	0.00E+00	5.00E-05	8.00E-05	7.00E-05	5.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369227.39	3762251.91	0.00E+00	5.00E-05	8.00E-05	7.00E-05	5.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369342.37	3754095.62	0.00E+00	2.80E-04	3.90E-04	3.90E-04	2.10E-04	9.00E-05	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369456.98	3762567.48	0.00E+00	4.00E-05	8.00E-05	7.00E-05	5.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369504.00	3754702.08	0.00E+00	3.70E-04	5.00E-04	5.00E-04	2.70E-04	1.20E-04	1.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369767.91	3761750.98	0.00E+00	7.00E-05	1.10E-04	1.00E-04	8.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369809.34	3764567.65	0.00E+00	3.00E-05	5.00E-05	4.00E-05	3.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369845.18	3754154.97	0.00E+00	1.90E-04	2.90E-04	3.20E-04	1.80E-04	8.00E-05	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369848.41	3753976.49	0.00E+00	1.80E-04	2.70E-04	3.00E-04	1.60E-04	7.00E-05	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370097.88	3760014.21	0.00E+00	1.00E-04	1.70E-04	1.40E-04	1.20E-04	6.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370150.95	3754699.75	0.00E+00	2.50E-04	4.00E-04	4.40E-04	2.60E-04	1.10E-04	7.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370192.96	3758860.70	0.00E+00	2.30E-04	3.60E-04	2.80E-04	2.10E-04	1.00E-04	9.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370243.17	3759622.98	0.00E+00	1.10E-04	2.00E-04	1.60E-04	1.30E-04	7.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370246.20	3754243.12	0.00E+00	1.90E-04	3.00E-04	3.20E-04	1.80E-04	7.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370290.74	3759464.60	0.00E+00	1.30E-04	2.20E-04	1.70E-04	1.40E-04	7.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370608.78	3762239.97	0.00E+00	4.00E-05	7.00E-05	6.00E-05	5.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370614.80	3762181.53	0.00E+00	4.00E-05	7.00E-05	6.00E-05	5.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370625.96	3763759.08	0.00E+00	3.00E-05	5.00E-05	4.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370723.56	3763867.78	0.00E+00	3.00E-05	5.00E-05	4.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370968.58	3759443.63	0.00E+00	1.30E-04	2.10E-04	1.60E-04	1.50E-04	7.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371139.14	3758179.30	0.00E+00	6.80E-04	9.40E-04	5.80E-04	3.90E-04	1.90E-04	2.70E-04	1.30E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371516.05	3762577.75	0.00E+00	4.00E-05	7.00E-05	5.00E-05	4.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371721.40	3759371.61	0.00E+00	1.90E-04	3.00E-04	2.10E-04	1.70E-04	8.00E-05	6.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371973.81	3758892.65	0.00E+00	3.30E-04	4.90E-04	3.30E-04	2.50E-04	1.30E-04	1.10E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372687.72	3759513.01	0.00E+00	2.00E-04	3.10E-04	2.00E-04	1.50E-04	8.00E-05	7.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372943.49	3761051.66	0.00E+00	8.00E-05	1.30E-04	9.00E-05	7.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373546.52	3760907.48	0.00E+00	9.00E-05	1.30E-04	9.00E-05	8.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373736.60	3756503.93	3.00E-05	2.70E-04	4.90E-04	4.50E-04	3.80E-04	2.20E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Construction_HHRA_Inputs_PM10_Annual.xlsx

PM10 Annual Summary by Source

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Emissions Source: Tire Wear, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
373758.20	3758043.23	1.00E-05	1.39E-03	2.45E-03	1.48E-03	1.73E-03	9.00E-04	5.00E-04	2.30E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
373781.58	3755802.14	1.00E-05	1.50E-04	2.90E-04	2.80E-04	2.00E-04	1.10E-04	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373814.20	3756040.57	3.00E-05	1.90E-04	3.20E-04	3.00E-04	2.40E-04	1.30E-04	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373990.06	3753826.14	0.00E+00	8.00E-05	1.50E-04	1.30E-04	9.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374057.73	3758196.53	0.00E+00	1.09E-03	1.81E-03	1.07E-03	1.17E-03	6.00E-04	3.90E-04	1.80E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374270.95	3758673.42	0.00E+00	6.70E-04	9.10E-04	5.00E-04	4.50E-04	2.30E-04	2.30E-04	1.10E-04	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374561.05	3757642.94	1.00E-05	6.10E-04	1.48E-03	1.39E-03	1.66E-03	9.80E-04	2.30E-04	9.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
374688.84	3758984.90	0.00E+00	4.60E-04	6.40E-04	3.60E-04	3.20E-04	1.60E-04	1.60E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374693.96	3758983.17	0.00E+00	4.70E-04	6.40E-04	3.70E-04	3.20E-04	1.60E-04	1.60E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374717.46	3762574.39	0.00E+00	3.00E-05	4.00E-05	3.00E-05	3.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375503.80	3764537.77	0.00E+00	3.00E-05	5.00E-05	3.00E-05	3.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375614.97	3760555.10	0.00E+00	1.10E-04	1.70E-04	1.20E-04	9.00E-05	5.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375718.04	3758204.95	0.00E+00	4.90E-04	9.20E-04	7.00E-04	7.60E-04	4.20E-04	1.80E-04	8.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
375902.79	3764940.52	0.00E+00	3.00E-05	4.00E-05	3.00E-05	3.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375908.38	3763938.71	0.00E+00	3.00E-05	5.00E-05	4.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375920.60	3762083.39	0.00E+00	5.00E-05	7.00E-05	5.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376709.15	3756388.48	0.00E+00	1.00E-04	1.50E-04	1.40E-04	9.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376814.39	3754856.27	0.00E+00	8.00E-05	1.40E-04	1.20E-04	8.00E-05	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377050.15	3761774.29	0.00E+00	7.00E-05	1.10E-04	8.00E-05	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377052.34	3761911.90	0.00E+00	7.00E-05	1.00E-04	7.00E-05	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377227.14	3756422.42	0.00E+00	9.00E-05	1.40E-04	1.30E-04	8.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377237.88	3763993.21	0.00E+00	4.00E-05	5.00E-05	4.00E-05	3.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377313.01	3765265.13	0.00E+00	7.00E-05	1.20E-04	1.10E-04	7.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377330.56	3760754.60	0.00E+00	1.30E-04	1.90E-04	1.20E-04	1.00E-04	5.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377342.37	3764027.27	0.00E+00	3.00E-05	4.00E-05	3.00E-05	3.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377388.19	3762578.39	0.00E+00	5.00E-05	8.00E-05	5.00E-05	5.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377563.47	3760340.44	0.00E+00	1.70E-04	2.50E-04	1.60E-04	1.40E-04	7.00E-05	6.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377753.42	3759272.76	0.00E+00	2.70E-04	4.30E-04	3.00E-04	2.70E-04	1.40E-04	9.00E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377839.66	3764649.02	0.00E+00	3.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377841.65	3762246.94	0.00E+00	6.00E-05	1.00E-04	7.00E-05	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377908.39	3762502.03	0.00E+00	6.00E-05	9.00E-05	6.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377916.00	3755241.12	0.00E+00	4.00E-05	7.00E-05	6.00E-05	4.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377924.86	3763642.88	0.00E+00	4.00E-05	6.00E-05	4.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377967.05	3762224.48	0.00E+00	6.00E-05	1.00E-04	7.00E-05	6.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378003.52	3753139.05	0.00E+00	3.00E-05	5.00E-05	5.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378022.11	3753897.25	0.00E+00	5.00E-05	8.00E-05	7.00E-05	5.00E-05	2.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378066.59	3761432.90	0.00E+00	1.00E-04	1.40E-04	9.00E-05	7.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378209.66	3764122.39	0.00E+00	4.00E-05	6.00E-05	5.00E-05	4.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378212.33	3753511.52	0.00E+00	3.00E-05	5.00E-05	5.00E-05

Pollutant: PM10, Concentrations, Emissions Source: Tire Wear, Units: ug/m3, Emissions Averaging: Peak Year Average Day, without Mitigation (no practical mitigation)

UTM X	UTM Y	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
378900.00	3761500.00	0.00E+00	1.00E-04	1.40E-04	9.00E-05	8.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379900.00	3753500.00	0.00E+00	2.00E-05	4.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379900.00	3758500.00	0.00E+00	1.60E-04	2.70E-04	2.00E-04	1.90E-04	1.00E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
380900.00	3764500.00	0.00E+00	4.00E-05	5.00E-05	4.00E-05	3.00E-05	2.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3753500.00	0.00E+00	2.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381900.00	3758500.00	0.00E+00	1.10E-04	1.80E-04	1.40E-04	1.20E-04	6.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3758500.00	0.00E+00	8.00E-05	1.20E-04	1.00E-04	8.00E-05	4.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3759500.00	0.00E+00	1.00E-04	1.60E-04	1.20E-04	1.00E-04	6.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3760500.00	0.00E+00	1.00E-04	1.60E-04	1.20E-04	1.10E-04	6.00E-05	4.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383900.00	3761500.00	0.00E+00	1.00E-04	1.50E-04	1.10E-04	9.00E-05	5.00E-05	3.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368085.00	3755395.00	0.00E+00	7.50E-04	9.00E-04	8.60E-04	3.80E-04	1.60E-04	1.90E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368185.00	3755395.00	0.00E+00	8.00E-04	9.60E-04	9.20E-04	4.10E-04	1.70E-04	2.10E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368285.00	3755395.00	0.00E+00	8.20E-04	9.80E-04	9.40E-04	4.20E-04	1.70E-04	2.20E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368385.00	3755395.00	0.00E+00	8.40E-04	1.01E-03	9.80E-04	4.40E-04	1.70E-04	2.30E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368485.00	3755395.00	0.00E+00	8.50E-04	1.02E-03	1.00E-03	4.50E-04	1.80E-04	2.40E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368585.00	3755395.00	0.00E+00	8.50E-04	1.04E-03	1.03E-03	4.60E-04	1.80E-04	2.40E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368685.00	3755395.00	0.00E+00	8.60E-04	1.05E-03	1.05E-03	4.80E-04	1.90E-04	2.50E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368785.00	3755395.00	0.00E+00	8.40E-04	1.04E-03	1.06E-03	4.80E-04	1.90E-04	2.50E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368885.00	3755395.00	0.00E+00	8.10E-04	1.02E-03	1.05E-03	4.90E-04	1.90E-04	2.50E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368985.00	3755395.00	0.00E+00	7.70E-04	9.80E-04	1.03E-03	4.90E-04	1.90E-04	2.40E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369085.00	3755395.00	0.00E+00	7.10E-04	9.30E-04	1.00E-03	4.80E-04	1.90E-04	2.30E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369185.00	3755395.00	0.00E+00	6.60E-04	8.80E-04	9.60E-04	4.70E-04	1.80E-04	2.20E-04	7.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369285.00	3755395.00	0.00E+00	6.30E-04	8.60E-04	9.40E-04	4.60E-04	1.70E-04	2.00E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369385.00	3755395.00	0.00E+00	6.30E-04	8.70E-04	9.20E-04	4.30E-04	1.70E-04	1.80E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369485.00	3755395.00	0.00E+00	6.60E-04	9.30E-04	9.20E-04	4.10E-04	1.60E-04	1.60E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369585.00	3755395.00	0.00E+00	6.90E-04	9.50E-04	9.40E-04	4.20E-04	1.70E-04	1.80E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369685.00	3755395.00	0.00E+00	6.90E-04	9.40E-04	9.40E-04	4.50E-04	1.80E-04	1.90E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369785.00	3755395.00	0.00E+00	6.50E-04	9.00E-04	9.20E-04	4.70E-04	1.90E-04	2.00E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369885.00	3755395.00	0.00E+00	5.90E-04	8.30E-04	8.90E-04	4.80E-04	2.00E-04	1.90E-04	6.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369985.00	3755395.00	0.00E+00	5.30E-04	7.60E-04	8.50E-04	4.90E-04	2.00E-04	1.70E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370085.00	3755395.00	0.00E+00	4.90E-04	7.30E-04	8.30E-04	4.80E-04	2.00E-04	1.50E-04	5.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370185.00	3755395.00	0.00E+00	4.90E-04	7.40E-04	8.20E-04	4.70E-04	1.90E-04	1.40E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370285.00	3755395.00	0.00E+00	5.10E-04	7.60E-04	8.30E-04	4.50E-04	1.90E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370377.81	3755313.33	0.00E+00	4.70E-04	7.10E-04	7.60E-04	4.00E-04	1.70E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370477.81	3755313.33	0.00E+00	4.60E-04	7.10E-04	7.50E-04	4.00E-04	1.70E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370577.81	3755313.33	0.00E+00	4.40E-04	6.90E-04	7.20E-04	3.90E-04	1.70E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370677.81	3755313.33	0.00E+00	4.30E-04	6.50E-04	6.80E-04	3.80E-04	1.60E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370777.81	3755313.33	0.00E+00	4.30E-04	6.40E-04	6.50E-04	3.70E-04	1.60E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370877.81	3755313.33	0.00E+00	4.20E-04	6.30E-04	6.40E-04	3.60E-04	1.60E-04	1.30E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370977.81	3755313.33	0.00E+00	3.90E-04	6.10E-04	6.30E-04	3.70E-04	1.50E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371077.81	3755313.33	0.00E+00	3.60E-04	5.80E-04	6.10E-04	3.60E-04	1.50E-04	1.20E-04	4.00E-05	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
371177.81	3755313.33	0.00E+00	3.40E-04	5.60E-04	5.90E-04	3.50E-04	1.50E-04	1.10E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371277.81	3755313.33	0.00E+00	3.30E-04	5.40E-04	5.60E-04	3.30E-04	1.40E-04	1.00E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371377.81	3755313.33	0.00E+00	3.20E-04	5.20E-04	5.40E-04	3.10E-04	1.30E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371477.81	3755313.33	0.00E+00	3.10E-04	5.10E-04	5.20E-04	3.00E-04	1.20E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371577.81	3755313.33	0.00E+00	3.10E-04	5.00E-04	5.00E-04	2.80E-04	1.20E-04	9.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371677.81	3755313.33	0.00E+00	3.00E-04	4.90E-04	4.70E-04	2.70E-04	1.10E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371777.81	3755313.33	0.00E+00	2.90E-04	4.70E-04	4.50E-04	2.60E-04	1.10E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371871.82	3755232.57	0.00E+00	2.70E-04	4.40E-04	4.10E-04	2.40E-04	1.00E-04	8.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371971.82	3755232.57	0.00E+00	2.50E-04	4.30E-04	4.00E-04	2.30E-04	1.10E-04	7.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372071.82	3755232.57	0.00E+00	2.40E-04	4.10E-04	3.80E-04	2.30E-04	1.10E-04	7.00E-05	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372171.82	3755232.57	0.00E+00	2.30E-04	4.00E-04	3.70E-04	2.30E-04	1.10E-04	7.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372271.82	3755232.57	0.00E+00	2.20E-04	3.80E-04	3.60E-04	2.30E-04	1.10E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372371.82	3755232.57	0.00E+00	2.10E-04	3.70E-04	3.50E-04	2.30E-04	1.10E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372471.82	3755232.57	0.00E+00	2.00E-04	3.60E-04	3.40E-04	2.20E-04	1.10E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372571.82	3755232.57	0.00E+00	1.90E-04	3.50E-04	3.40E-04	2.20E-04	1.00E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372671.82	3755232.57	0.00E+00	1.90E-04	3.40E-04	3.30E-04	2.10E-04	1.00E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372771.82	3755232.57	0.00E+00	1.80E-04	3.20E-04	3.30E-04	2.00E-04	1.00E-04	6.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372871.82	3755232.57	0.00E+00	1.70E-04	3.10E-04	3.20E-04	1.90E-04	9.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372971.82	3755232.57	0.00E+00	1.60E-04	3.00E-04	3.10E-04	1.80E-04	9.00E-05	5.00E-05	2.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Attachment F.1.4

Operations – Criteria Pollutant and Greenhouse Gas Emissions

- 2015 Parking Volumes Summary
- 2015 Parking Emissions Summary
- 2024 Parking Volumes Summary
- 2024 Traffic Link Volumes Comparison
- 2024 Parking Emissions Summary
- 2035 Parking Volumes Summary
- 2035 Traffic Link Volumes Comparison
- 2035 Parking Emissions Summary
- Traffic Emissions Inventory
- *Fueling Emissions Factors*
- *Fueling Emissions Inventory*
- Potential Future Related Development without Mitigation
  - Breakdown
- Potential Future Related Development with Mitigation
  - Breakdown
- Proposed Project – No Electrical Demand
- Proposed Project AQ – Electrical Demand
- Proposed Project GHG – Electrical Demand

Attachment F.1.4

Operations – Criteria Pollutant and Greenhouse Gas Emissions

- Fueling Emissions Factors

LAX Landside Access Modernization Program Project, Final EIR

2014 Gasoline Usage
26,000 gallons per day
789,000 gallons per month
9,500,000 gallons per year
Source: Email from R. Laurence (Stantec) to Fatima Hasim (LAWA), Dec 6, 2016.

Average
3.25 gallons per transaction

Emission Factors

For Gasoline:

Underground Tanks:

VOC	1.005	lb/1000 gals (controlled)
Benzene	0.01005	lb/1000 gals (1.0% by weight)
Naphthalene	0.00141	lb/1000 gals (0.14% by weight)

Aboveground Tanks:

VOC	0.921	lb/1000 gals (controlled)
Benzene	0.00921	lb/1000 gals (1.0% by weight)
Naphthalene	0.00129	lb/1000 gals (0.14% by weight)

For Diesel:

VOC	0.028	lb/1000 gal

Source: SCAQMD. AER Reporting Tool - Frequently Asked Questions (FAQ)
http://www.aqmd.gov/docs/default-source/planning/annual-emission-reporting/faq.pdf?sfvrsn=5

Attachment F.*1*.4

Operations – Criteria Pollutant and Greenhouse Gas Emissions

- Fueling Emissions Inventory

Emissions from Refueling Activities

Daily Emissions (lbs/day)

Year	Alternative	Throughput (gal/day)	VOC	Benzene	Naphthalene
2015	Baseline	26,000	26.13	0.26	0.04
2024	No Project	30,000	30.15	0.30	0.04
2024	Project	32,000	32.16	0.32	0.05
2035	No Project	34,000	34.17	0.34	0.05
2035	Project	36,000	36.18	0.36	0.05

Note: Values rounded to nearest 1,000

Annual Emissions (tons/year)

Year	Alternative	Throughput (gal/year)	VOC	Benzene	Naphthalene
2015	Baseline	9,500,000	4.77	0.05	0.01
2024	No Project	11,100,000	5.58	0.06	0.01
2024	Project	11,500,000	5.78	0.06	0.01
2035	No Project	12,400,000	6.23	0.06	0.01
2035	Project	13,200,000	6.63	0.07	0.01

Note: Values rounded to nearest 100,000

Traffic Volume Summary (LDAT)

TAZ #	LAWA Facility	Source	Traffic Links	Baseline 2015	Baseline 2024	Baseline 2035	LAMP 2024	LAMP 2035
84	Rental Car - Enterprise	Enterprise	2677504	585	563	573	n/a	n/a
		Enterprise	2677505	1,664	2,092	2,294	n/a	n/a
92	Rental Car - Advantage	Advantage	2677513	1,180	1,334	1,410	n/a	n/a
93	Rental Car -Alamo / National	Alamo / N	2677514	5,687	6,685	7,275	n/a	n/a
94	Rental Car - Avis	Avis	2677515	692	748	904	n/a	n/a
		Avis	2677516	4,605	5,387	5,692	n/a	n/a
95	Rental Car - Budget	Budget	2677517	224	203	273	n/a	n/a
		Budget	2677518	1,026	1,255	1,178	n/a	n/a
		Budget	2677519	1,112	1,199	1,361	n/a	n/a
2727	Rental Car - Dollar	Dollar	2677520	3,084	3,732	4,013	n/a	n/a
2730	Rental Car - Fox / Payless	Fox / Payl	2677521	1,002	1,186	2,521	n/a	n/a
2732	Rental Car - Hertz	Hertz	2677525	3,484	4,246	4,522	n/a	n/a
		Hertz	2677526	2,601	2,876	3,190	n/a	n/a
2733	Rental Car - Thrifty	Thrifty	2677522	1,712	2,023	2,188	n/a	n/a
100	CONRAC	CONRAC	n/a	n/a	n/a	n/a	34,802	39,918
			Total	**28,659**	**33,528**	**37,394**	**34,802**	**39,918**

Attachment F.*1*.6

Operation Concentrations– Toxic Air Contaminants

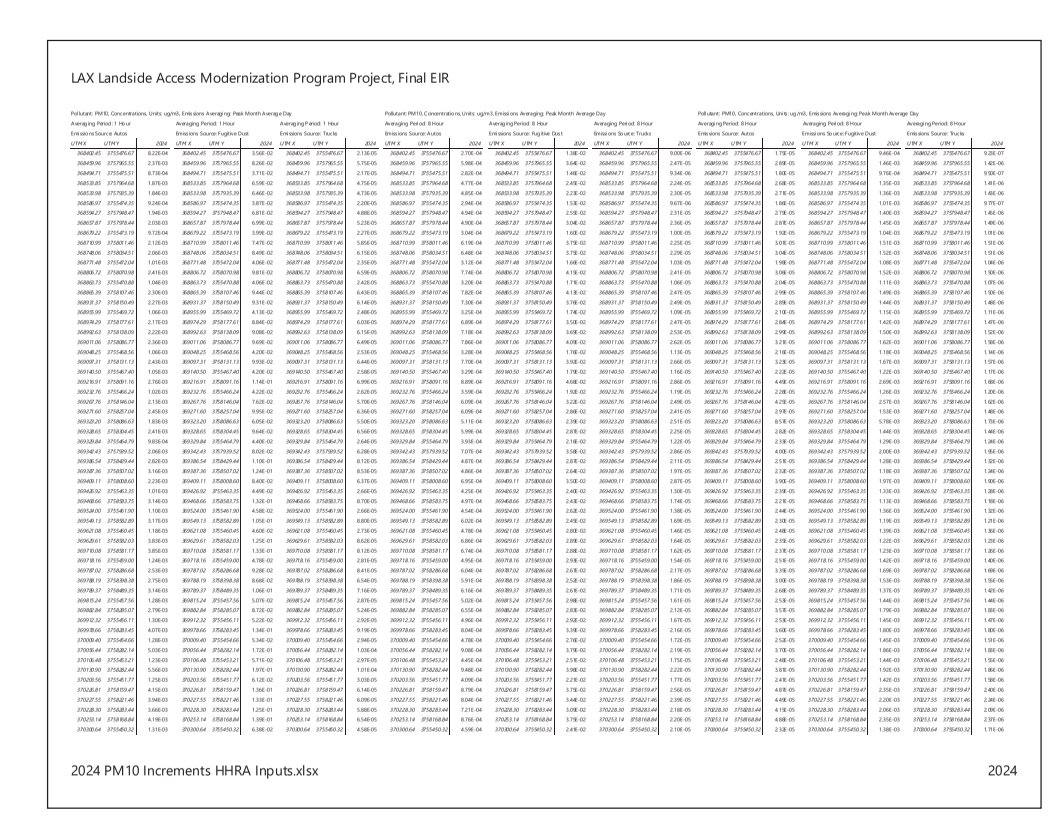
- Proposed Project 2024 PM10 ~~and ROG~~ Inputs
- Proposed Project 2024 ~~PM10 and~~ ROG Inputs
- Proposed Project 2035 PM10 ~~and ROG~~ Inputs
- Proposed Project 2035 ~~PM10 and~~ ROG Inputs

Attachment F.*1*.6

Operation Concentrations– Toxic Air Contaminants

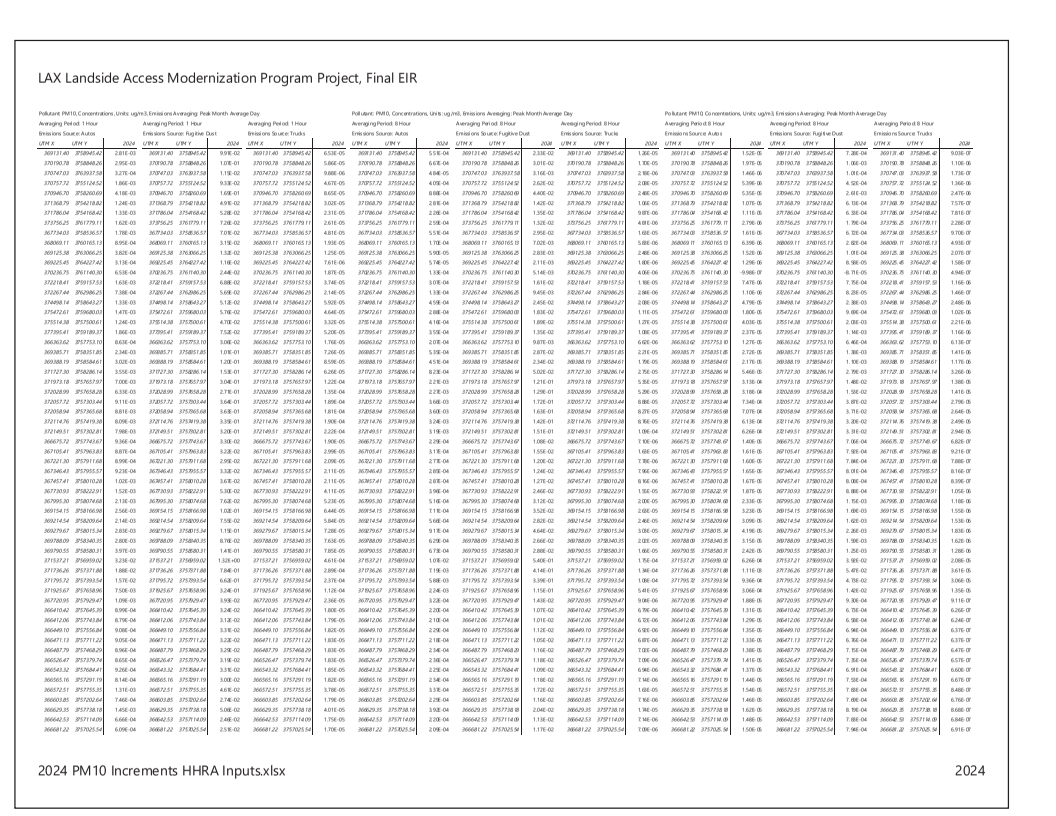
- Proposed Project 2024 PM10 Inputs

LAX Landside Access Modernization Program Project, Final EIR



2024 PM10 Increments HHRA Inputs.xlsx 2024

LAX Landside Access Modernization Program Project, Final EIR



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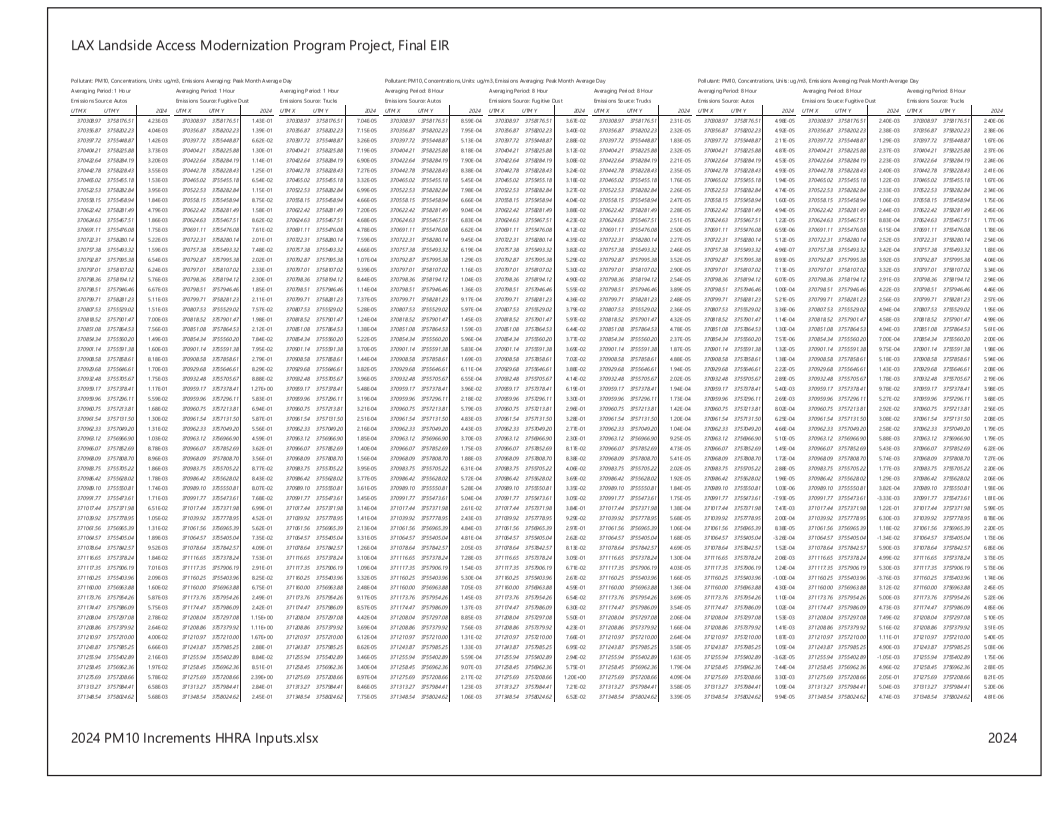
LAX Landside Access Modernization Program Project, Final EIR



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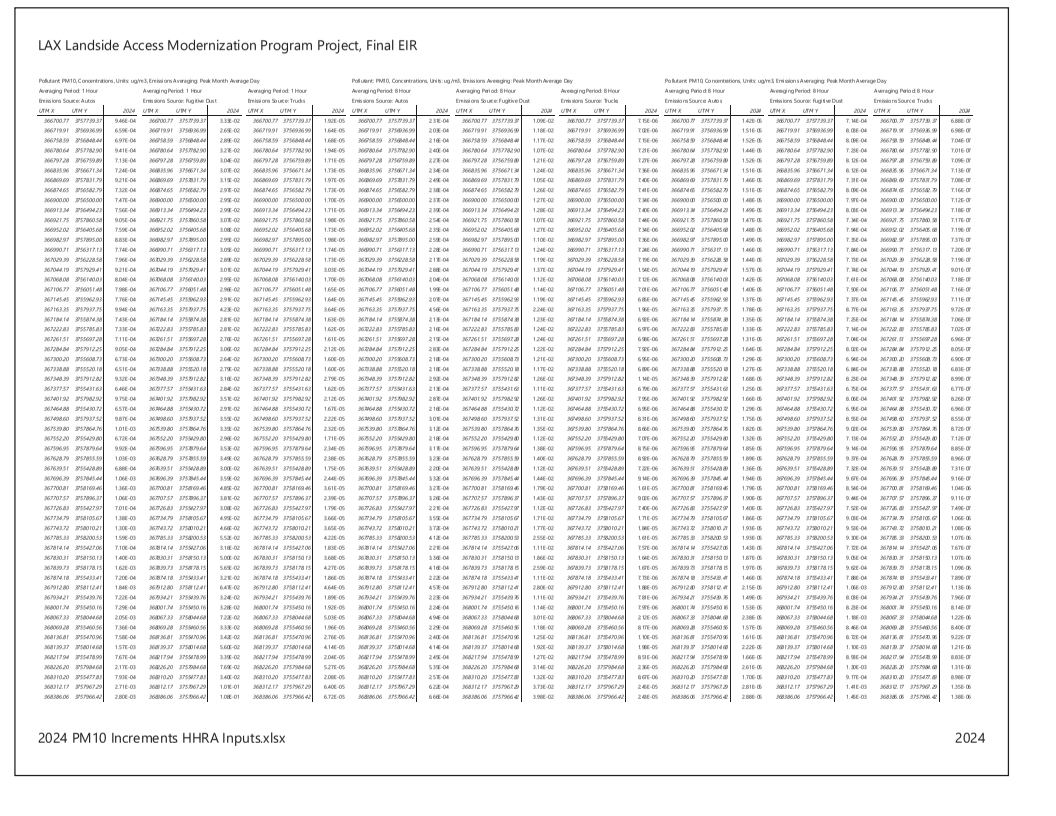

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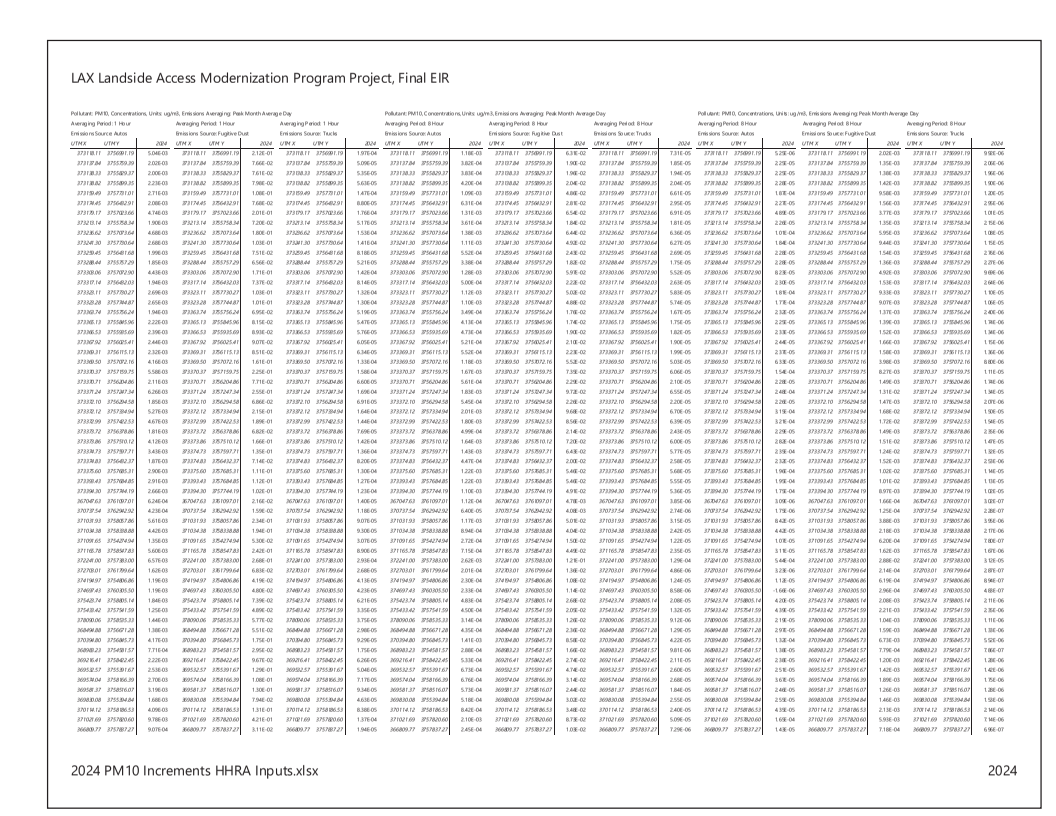

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2024

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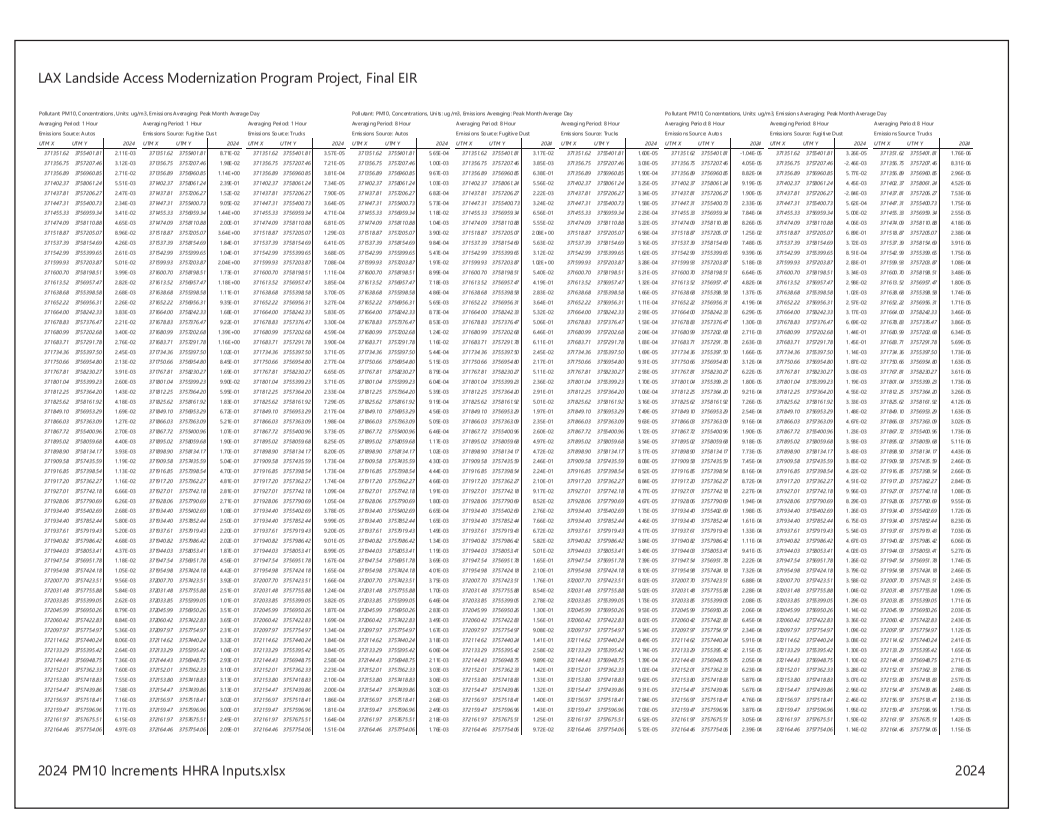

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2024

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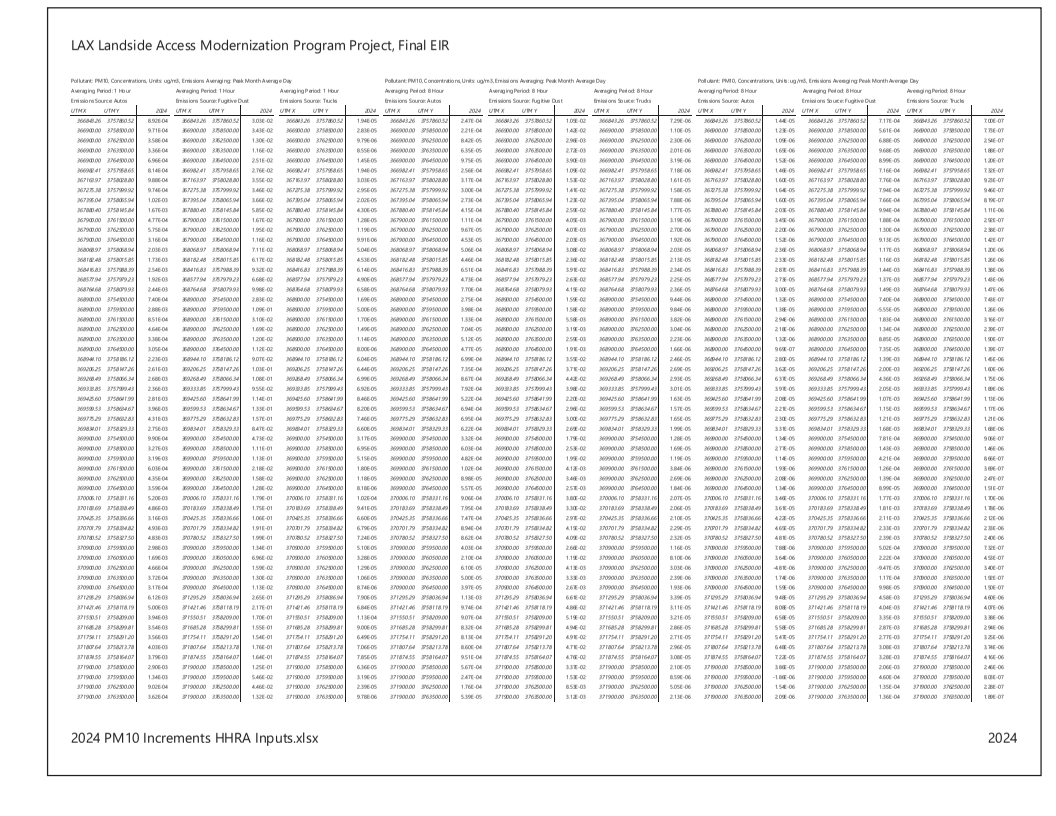

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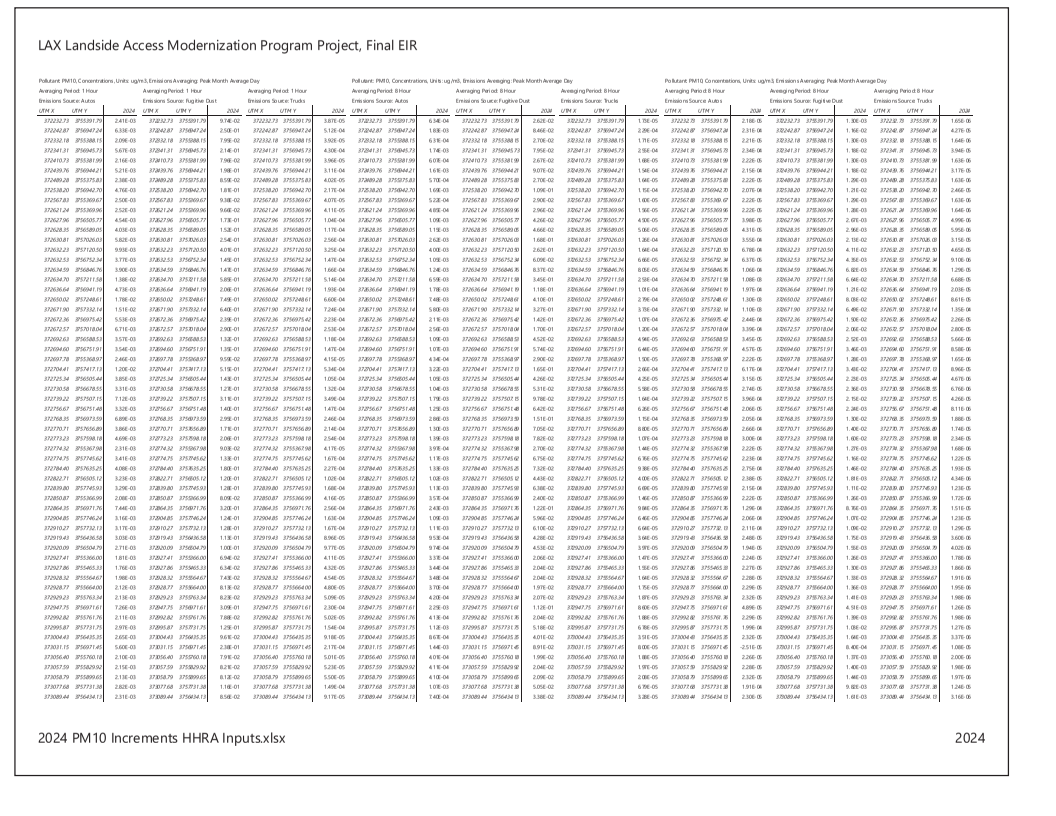

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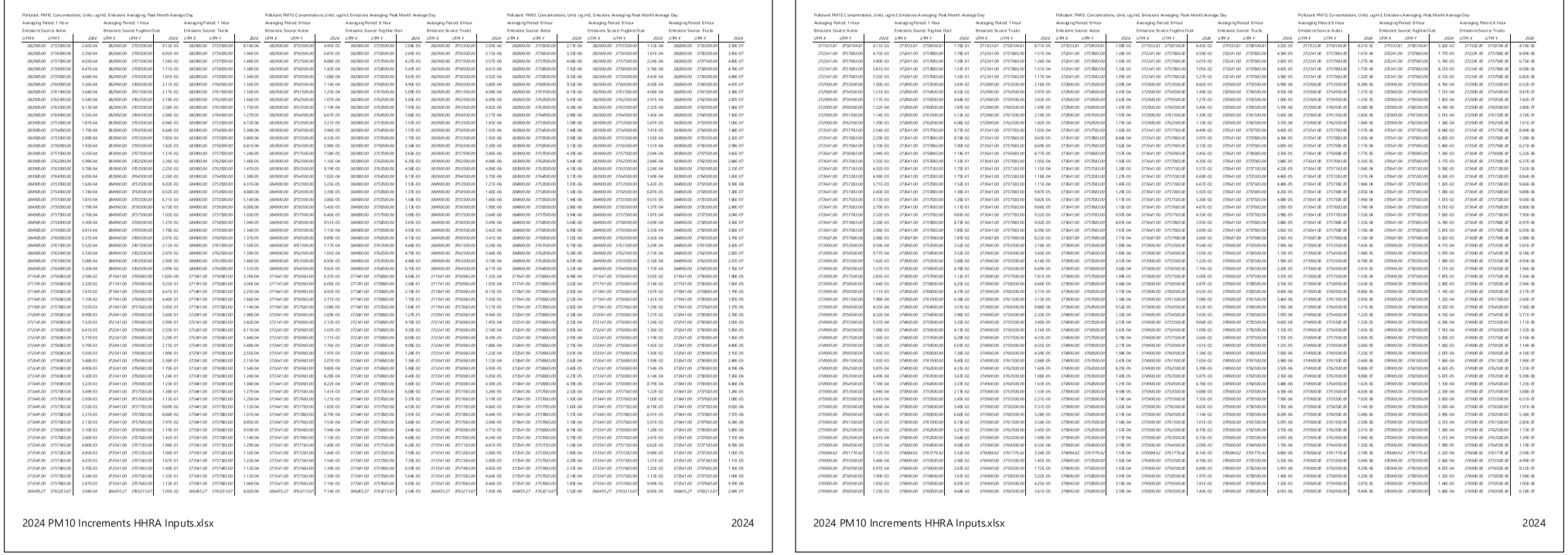

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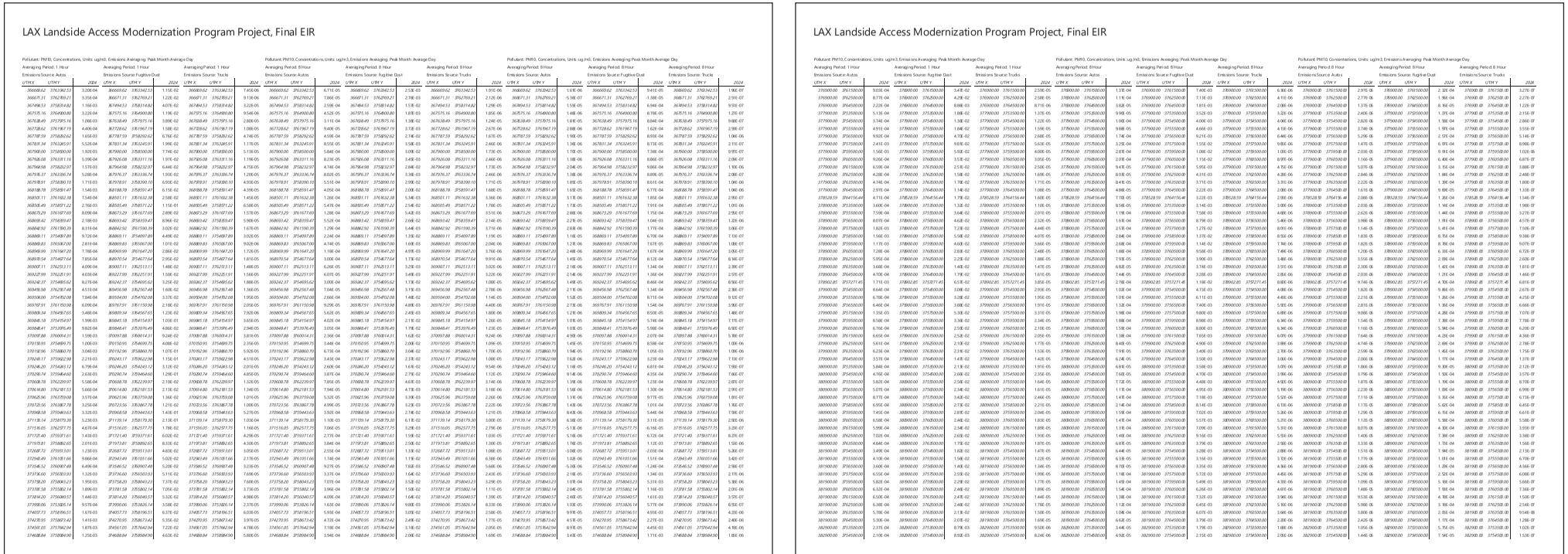

LAX Landside Access Modernization Program Project, Final EIR

Pollutant: PM10, Concentrations, Units: ug/m3, Emissions Averaging: Peak Month Average Day
Averaging Period: 1 Hour
Emissions Source: Autos

UTHX	UTHY	2024
372341.00	3757483.00	5,716.03
372341.00	3757383.00	5,416.03
372341.00	3757283.00	5,526.03
372341.00	3757183.00	4,756.03
372341.00	3757083.00	6,106.03
372441.00	3757483.00	6,546.03
372441.00	3757383.00	6,566.03
372441.00	3757283.00	5,096.03
372441.00	3757183.00	5,026.03
372441.00	3757083.00	4,996.03
372541.00	3757483.00	4,888.03
372541.00	3757383.00	4,966.03
372541.00	3757283.00	4,906.03
372541.00	3757183.00	3,826.03
372541.00	3757083.00	3,946.03
372641.00	3757483.00	5,116.03
372641.00	3757383.00	4,776.03
372641.00	3757283.00	4,226.03
372641.00	3757183.00	3,946.03
372641.00	3757083.00	3,986.03
372741.00	3757483.00	4,456.03
372741.00	3757383.00	4,216.03
372741.00	3757283.00	3,946.03
372741.00	3757183.00	3,616.03
372741.00	3757083.00	3,956.03
372841.00	3757483.00	4,216.03
372841.00	3757383.00	3,946.03
372841.00	3757283.00	3,616.03
372841.00	3757183.00	3,616.03
372841.00	3757083.00	3,956.03
372941.00	3757483.00	4,216.03
372941.00	3757383.00	3,946.03
372941.00	3757283.00	3,616.03
372941.00	3757183.00	3,616.03
372941.00	3757083.00	3,956.03
373041.00	3757483.00	4,216.03
373041.00	3757383.00	3,946.03
373041.00	3757283.00	3,616.03
373041.00	3757183.00	3,616.03
373041.00	3757083.00	3,956.03
373141.00	3757483.00	4,216.03
373141.00	3757383.00	3,946.03
373141.00	3757283.00	3,616.03
373141.00	3757183.00	3,616.03
373141.00	3757083.00	3,956.03
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373241.00	3757383.00	3,946.03
373241.00	3757283.00	3,616.03
373241.00	3757183.00	3,616.03
373241.00	3757083.00	3,956.03
373341.00	3757483.00	4,216.03
373341.00	3757383.00	3,946.03
373341.00	3757283.00	3,616.03
373341.00	3757183.00	3,616.03
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373441.00	3757383.00	3,946.03
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383841.00	3757383.00	3,946.03
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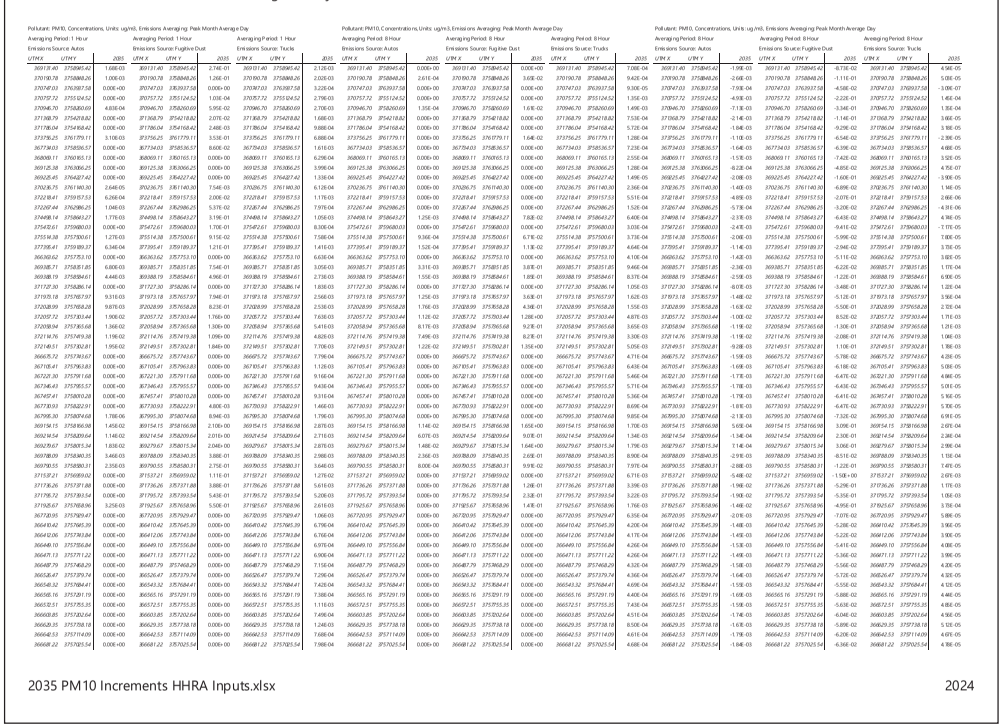
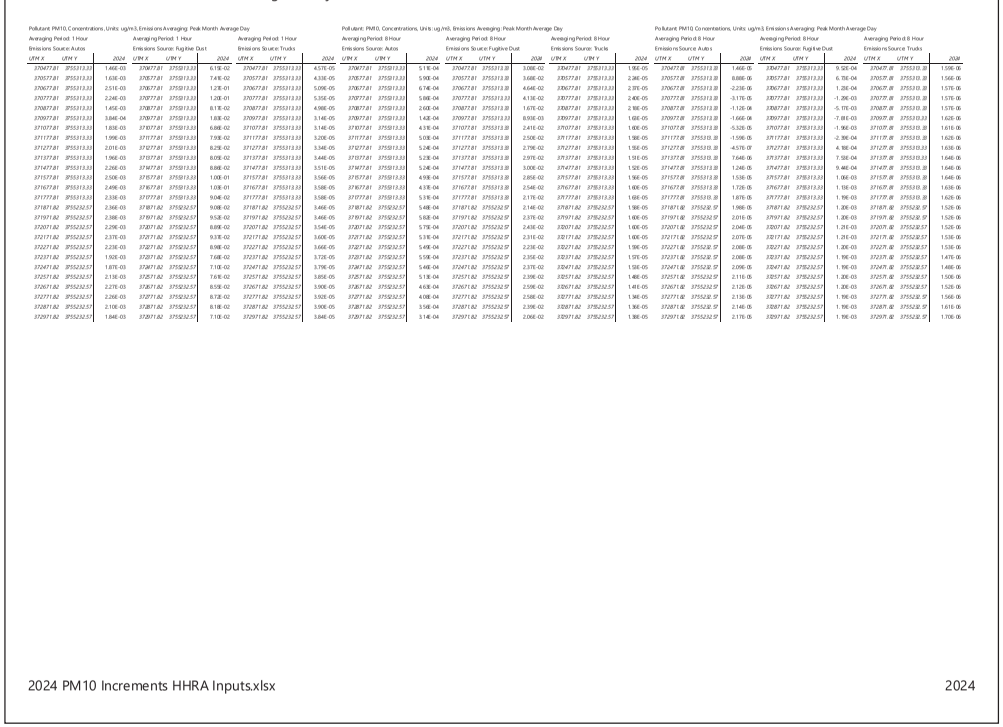
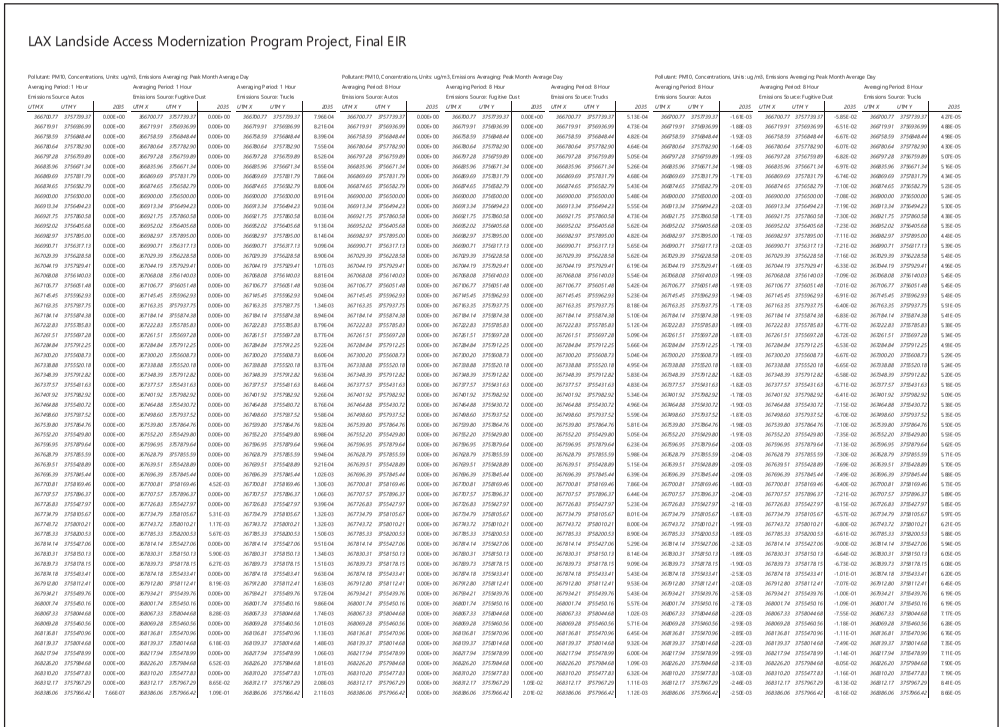
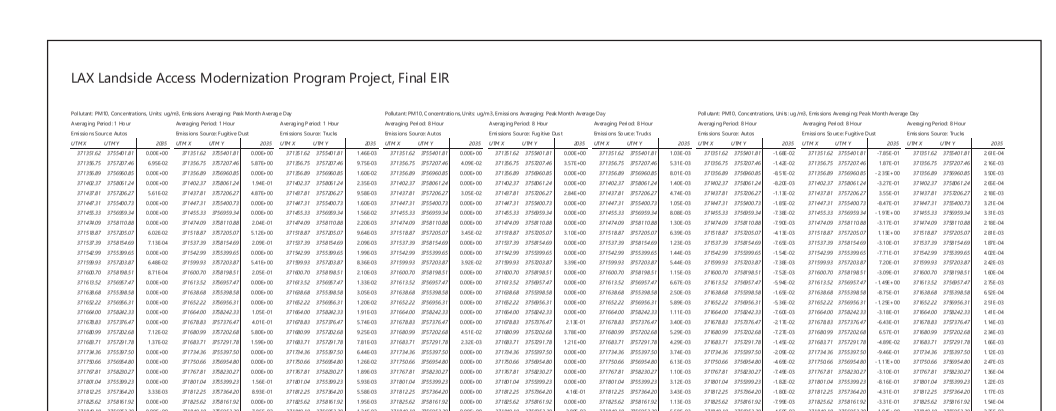






LAX Landside Access Modernization Program Project, Final EIR



2035 PM10 Increments HHRA Inputs.xlsx 2024

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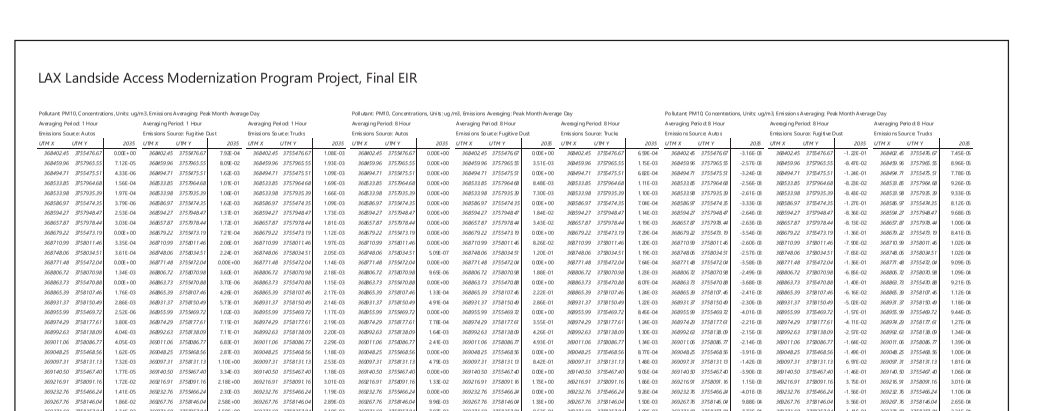

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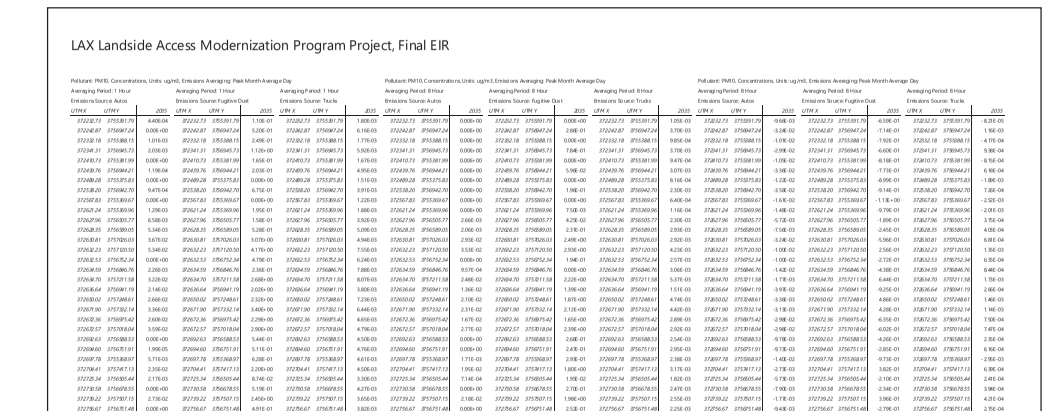

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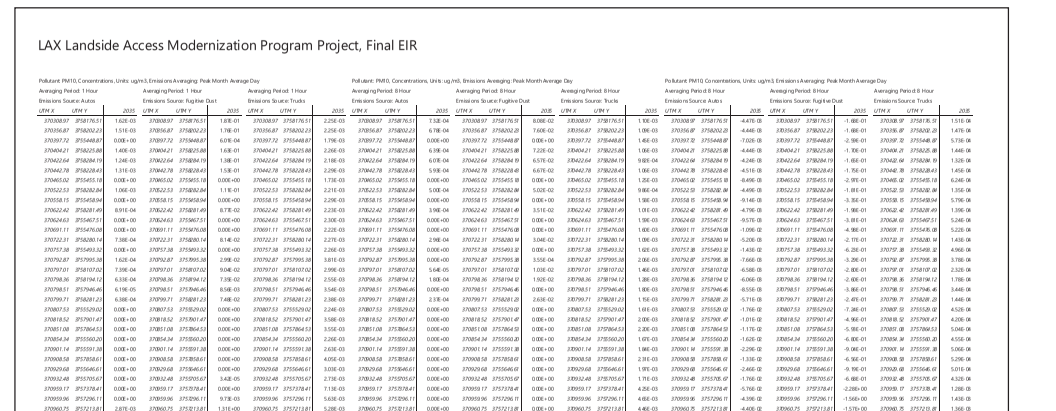

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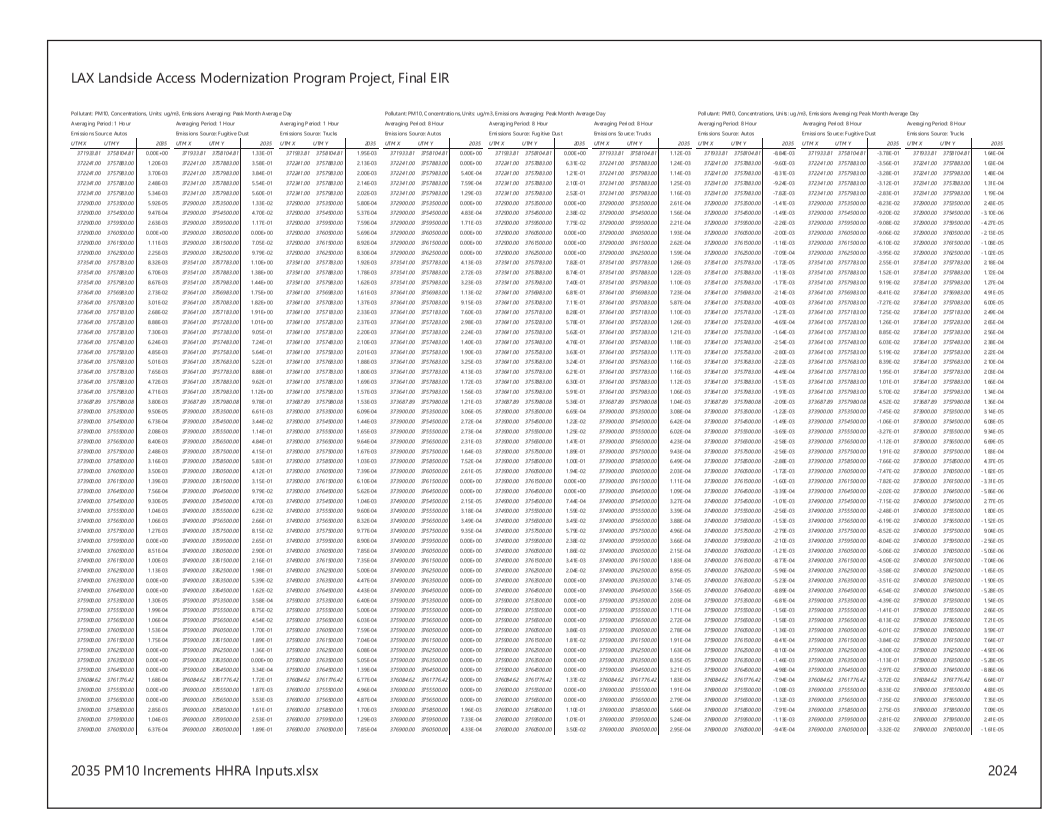

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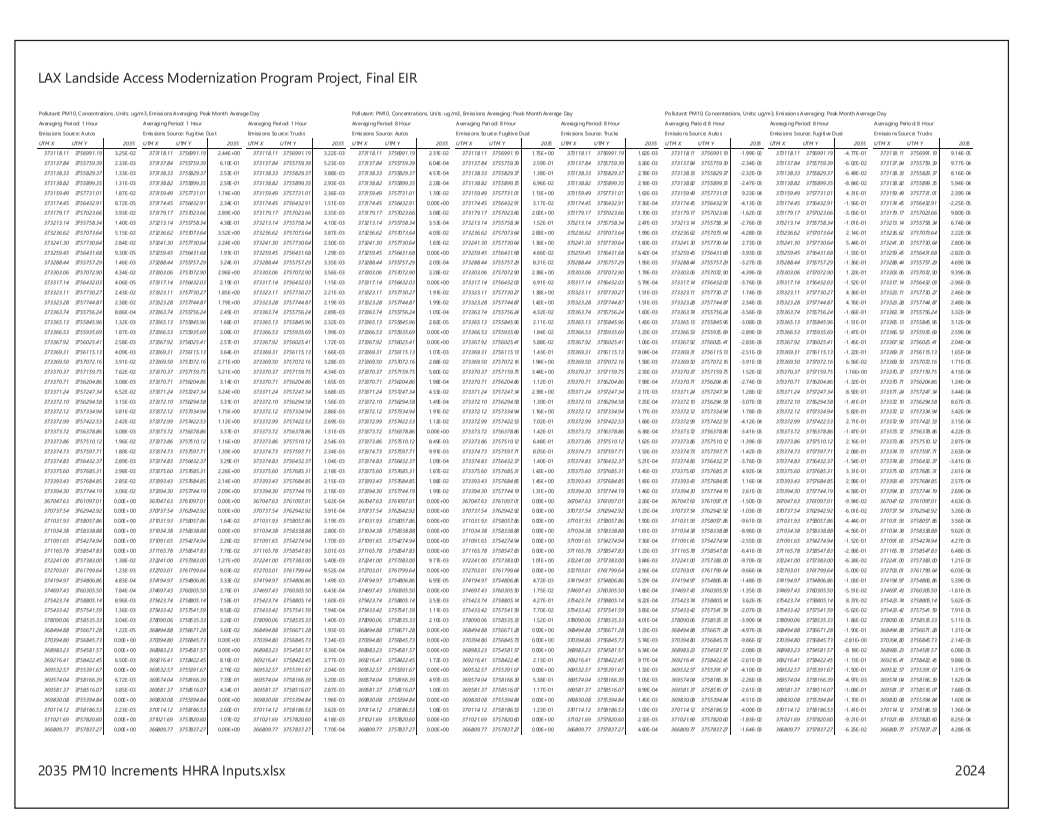

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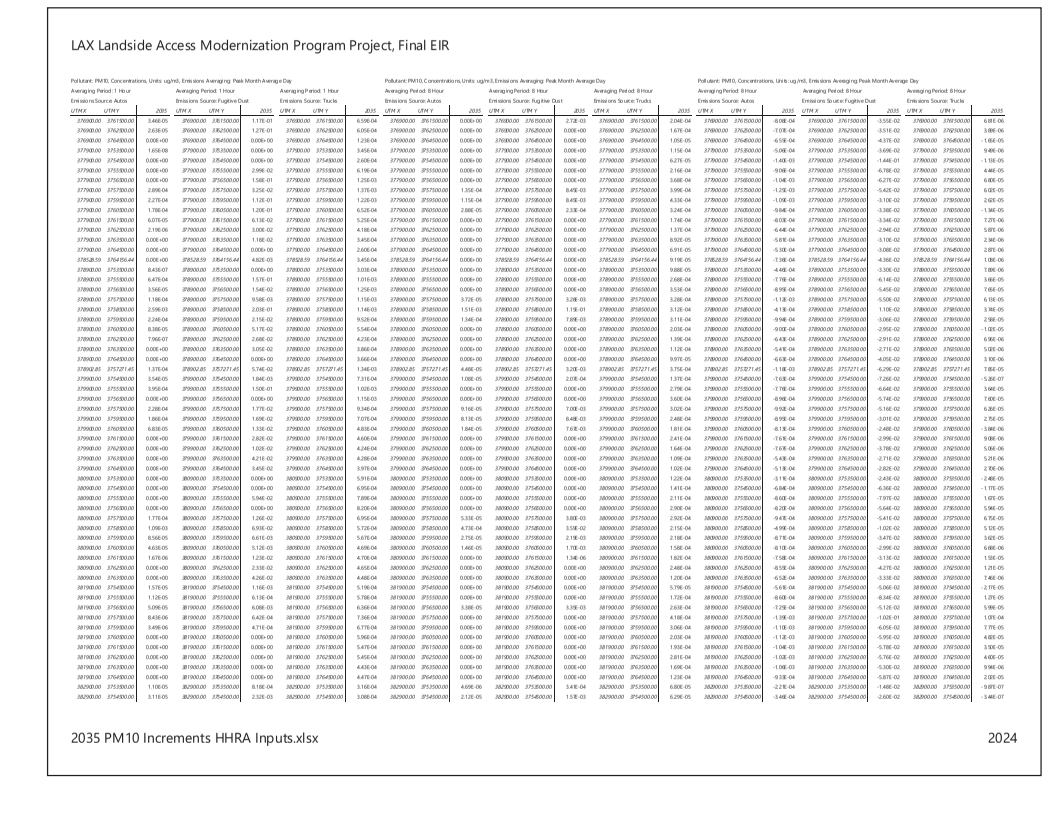

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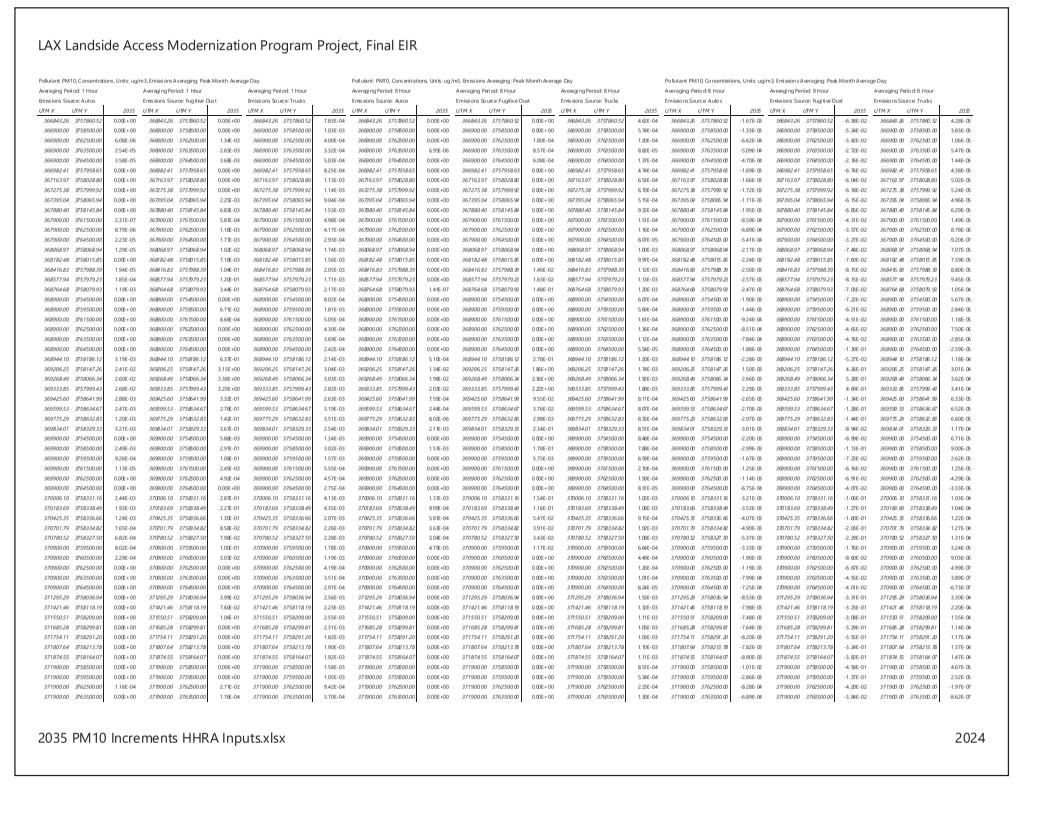

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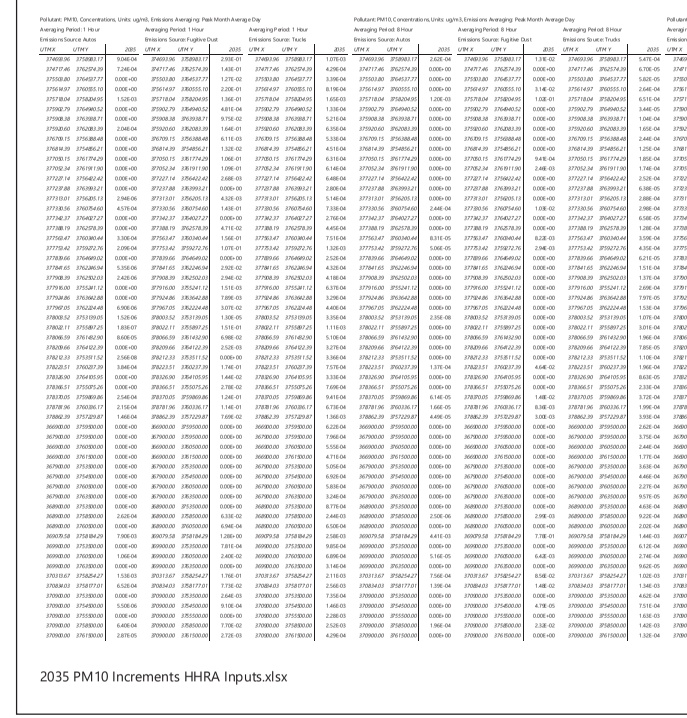

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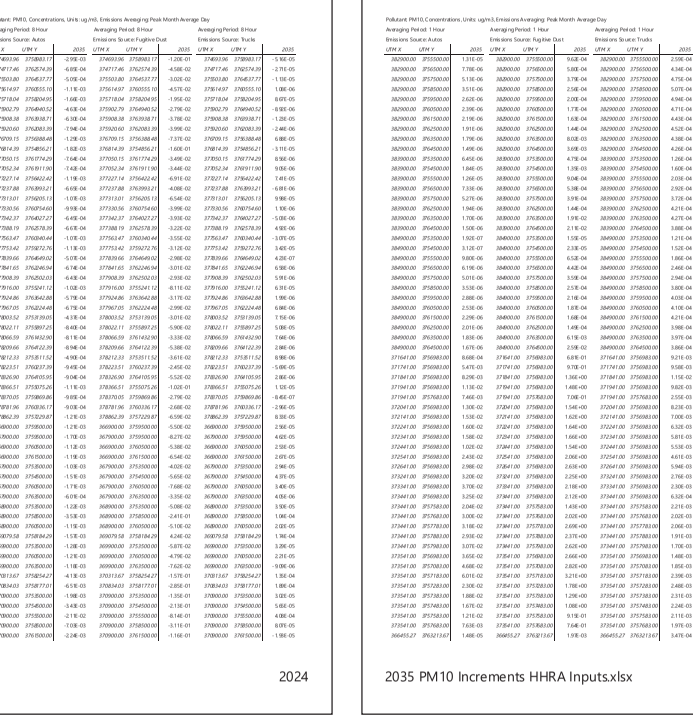

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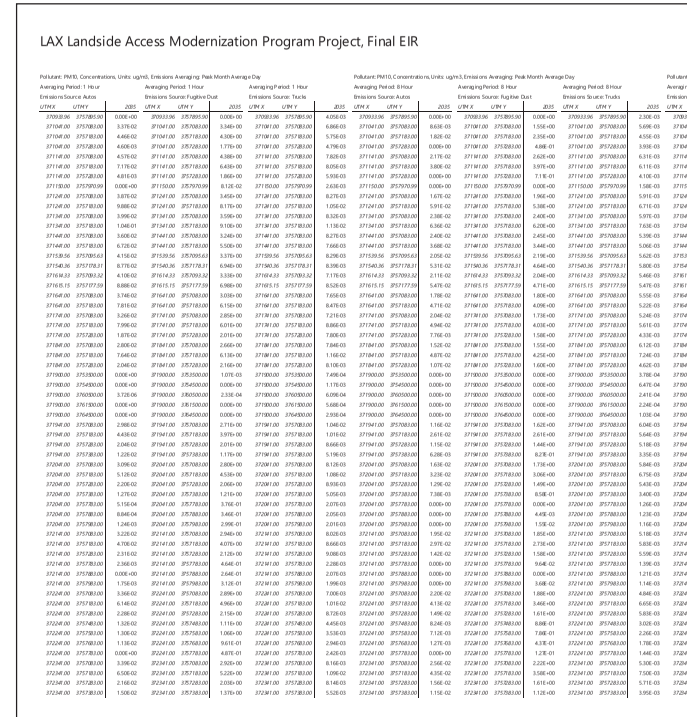

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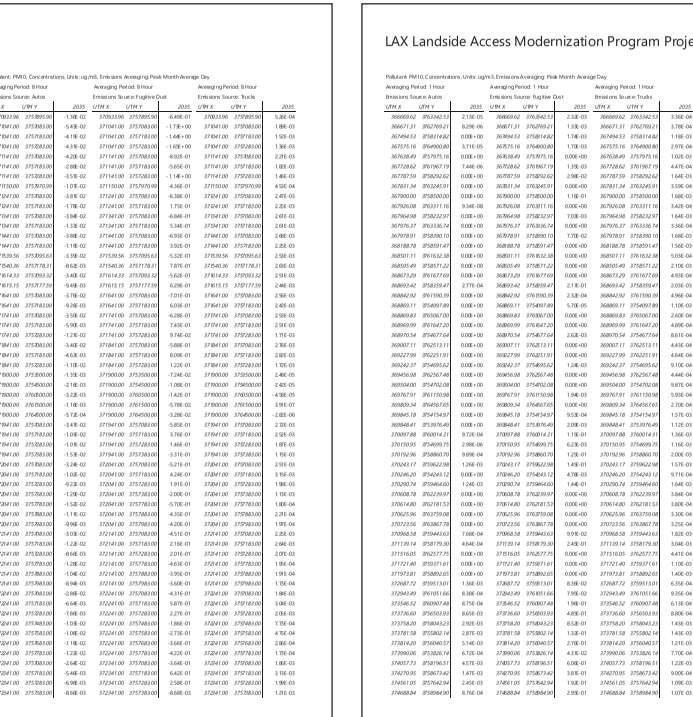

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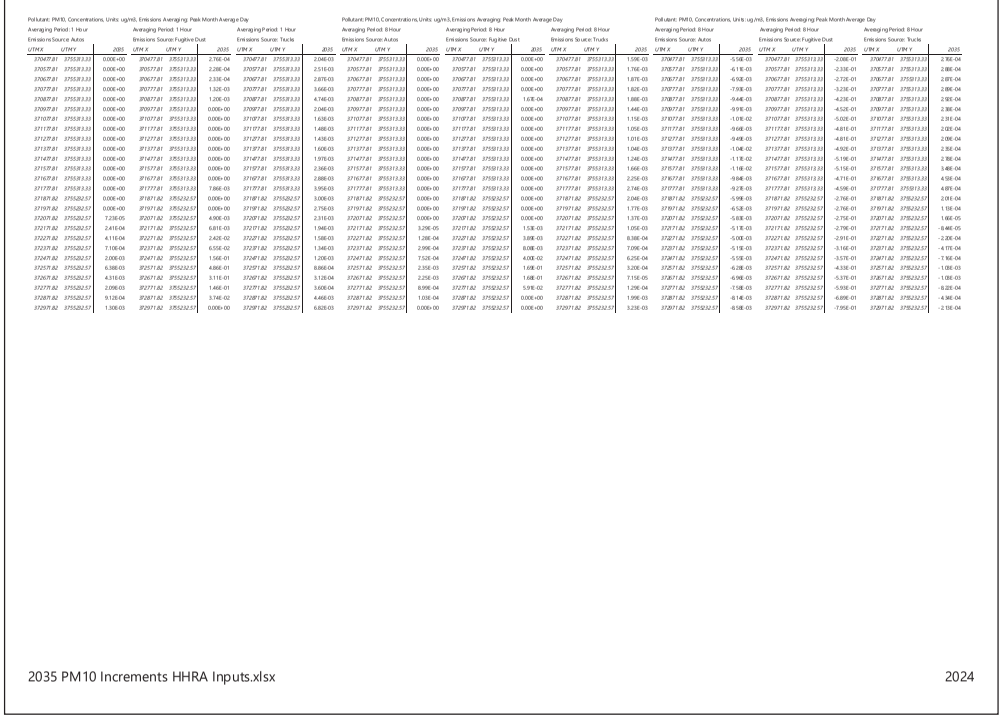

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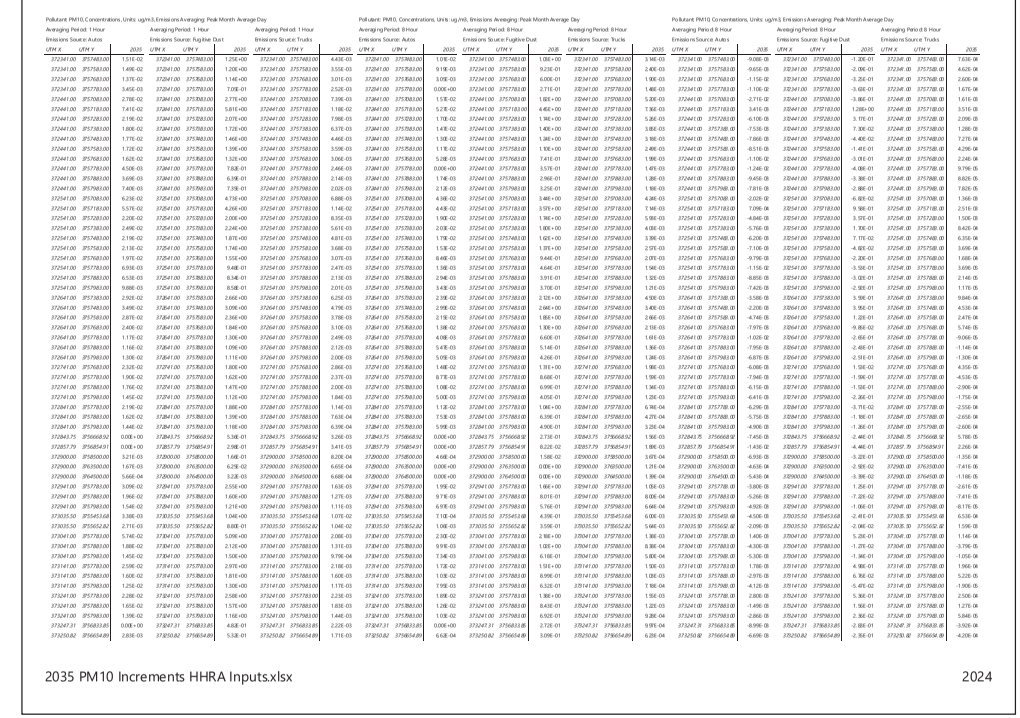

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Table 1-1.1A
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2017 Unmitigated Construction Through 2035 Operations - Lifetime Exposure
30-Year Adult Resident Scenario
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	3rd Trimester	Ages 0<2	Ages 2<9	Ages 2<16	Ages 16<30	Ages 16<70
Daily Breathing Rate (DBR)	361 L/kg-d	1090 L/kg-d	861 L/kg-d	745 L/kg-d	335 L/kg-d	290 L/kg-d
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L
Age-adjustment (ASF)	10 unitless	10 unitless	3 unitless	3 unitless	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.00357 unitless	0.01429 unitless	0.01429 unitless	0.01429 unitless	0.2 unitless	0.771 unitless
Fraction of Time at Home (FAH)	1.00 unitless	1.00 unitless	1.00 unitless	1 unitless	0.73 unitless	0.73 unitless

	Start Age	End Age
Child Resident	0	9 Year
School Child	7	16 Year
30-year Resident	0	30 Year
70-year Resident	0	70 Year

	Concentration at Location w/Maximum Risk (ug/m^3)																					
	Construction											Operation										
TAC	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
1,2,4-trimethylbenzene	3.28E-07	3.85E-05	8.72E-05	9.07E-05	1.39E-04	7.64E-05	9.68E-06	3.77E-06	0.00E+00	0.00E+00	8.20E-08	1.26E-02	1.26E-02	1.26E-02	1.27E-02	1.27E-02	1.27E-02	1.27E-02	1.27E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02
1,3-butadiene	1.84E-07	2.16E-05	4.89E-05	5.09E-05	7.59E-05	4.29E-05	5.43E-06	2.12E-06	0.00E+00	0.00E+00	4.60E-08	7.09E-03	7.07E-03	7.08E-03	7.09E-03	7.11E-03	7.12E-03	7.14E-03	7.15E-03	7.16E-03	7.16E-03	7.15E-03	7.21E-03
2,2,4-trimethylpentane	7.36E-07	9.17E-05	2.07E-04	2.16E-04	3.22E-04	1.82E-04	2.30E-05	8.97E-06	0.00E+00	0.00E+00	1.95E-07	2.98E-02	3.00E-02	3.00E-02	3.01E-02	3.02E-02	3.03E-02	3.03E-02	3.04E-02	3.04E-02	3.04E-02	3.05E-02	3.06E-02
acetaldehyde	9.80E-08	1.13E-05	2.55E-05	2.68E-05	3.99E-05	2.24E-05	2.83E-06	1.10E-06	0.00E+00	0.00E+00	2.40E-08	3.68E-03	3.69E-03	3.69E-03	3.70E-03	3.71E-03	3.72E-03	3.72E-03	3.73E-03	3.74E-03	3.74E-03	3.75E-03	3.76E-03
acrolein	4.46E-08	5.17E-06	1.17E-05	1.22E-05	1.82E-05	1.03E-05	1.30E-06	5.09E-07	0.00E+00	0.00E+00	1.10E-08	1.69E-03	1.69E-03	1.69E-03	1.70E-03	1.70E-03	1.71E-03	1.71E-03	1.71E-03	1.72E-03	1.72E-03	1.72E-03	1.72E-03
benzene	3.06E-06	2.29E-04	3.08E-04	2.74E-04	4.21E-04	2.28E-04	2.47E-05	9.61E-06	0.00E+00	0.00E+00	2.09E-07	3.20E-02	3.21E-02	3.22E-02	3.23E-02	3.23E-02	3.24E-02	3.25E-02	3.25E-02	3.26E-02	3.27E-02	3.27E-02	3.27E-02
cumene	4.00E-08	4.70E-07	1.06E-06	1.15E-06	1.65E-06	9.32E-07	1.18E-07	4.60E-08	0.00E+00	0.00E+00	1.00E-09	1.53E-04	1.54E-04	1.54E-04	1.54E-04	1.55E-04	1.55E-04	1.56E-04	1.56E-04	1.56E-04	1.56E-04	1.56E-04	1.57E-04
cyclohexane	2.08E-07	2.44E-05	5.53E-05	5.79E-05	8.59E-05	4.85E-05	6.14E-06	2.39E-06	0.00E+00	0.00E+00	5.20E-08	7.97E-03	7.99E-03	8.00E-03	8.02E-03	8.04E-03	8.05E-03	8.07E-03	8.08E-03	8.10E-03	8.11E-03	8.13E-03	8.15E-03
ethylbenzene	5.85E-07	5.02E-05	1.34E-04	1.45E-04	3.78E-04	2.01E-04	1.05E-05	1.43E-05	0.00E+00	6.96E-07	7.98E-06	1.36E-02	1.37E-02	1.37E-02	1.37E-02	1.38E-02	1.38E-02	1.38E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02
ethylene	2.16E-06	2.53E-04	5.73E-04	5.98E-04	8.93E-04	5.02E-04	6.34E-05	2.46E-05	0.00E+00	0.00E+00	5.36E-07	8.20E-02	8.23E-02	8.23E-02	8.30E-02	8.31E-02	8.33E-02	8.35E-02	8.36E-02	8.38E-02	8.39E-02	8.41E-02	8.43E-02	8.44E-02
formaldehyde	5.36E-07	6.30E-05	1.43E-04	1.48E-04	2.21E-04	1.29E-04	1.58E-05	6.16E-06	0.00E+00	0.00E+00	1.34E-07	2.05E-02	2.06E-02	2.06E-02	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02	2.09E-02	2.09E-02	2.10E-02
hexane, n- isoprene, except from	5.40E-07	6.35E-05	1.44E-04	1.49E-04	2.23E-04	1.29E-04	1.59E-05	6.21E-06	0.00E+00	0.00E+00	1.35E-07	2.07E-02	2.07E-02	2.08E-02	2.09E-02	2.09E-02	2.09E-02	2.10E-02	2.10E-02	2.10E-02	2.11E-02	2.11E-02	2.11E-02
vegetative emission sources	4.80E-08	5.64E-06	1.28E-05	1.33E-05	1.98E-05	1.12E-05	1.42E-06	5.52E-07	0.00E+00	0.00E+00	1.20E-08	1.84E-03	1.84E-03	1.85E-03	1.85E-03	1.86E-03	1.86E-03	1.87E-03	1.87E-03	1.87E-03	1.88E-03	1.88E-03	1.88E-03
methyl alcohol	4.00E-08	4.70E-06	1.06E-05	1.11E-05	1.65E-05	9.32E-06	1.18E-06	4.60E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.57E-03
methyl ethyl ketone	8.00E-08	9.40E-07	2.13E-06	2.23E-06	3.30E-06	1.86E-06	2.36E-07	9.20E-08	0.00E+00	0.00E+00	2.00E-09	3.07E-04	3.07E-04	3.08E-04	3.08E-04	3.09E-04	3.10E-04	3.11E-04	3.11E-04	3.12E-04	3.13E-04	3.13E-04	3.13E-04
naphthalene	1.60E-08	1.88E-06	4.26E-06	4.42E-06	6.63E-06	3.73E-06	4.72E-07	1.84E-07	0.00E+00	0.00E+00	4.00E-09	6.13E-04	6.14E-04	6.16E-04	6.17E-04	6.18E-04	6.21E-04	6.22E-04	6.23E-04	6.24E-04	6.24E-04	6.25E-04	6.27E-04
propionaldehyde	1.20E-08	1.41E-06	3.19E-06	3.32E-06	4.95E-06	2.80E-06	3.54E-07	1.38E-07	0.00E+00	0.00E+00	3.00E-09	4.60E-04	4.61E-04	4.62E-04	4.63E-04	4.64E-04	4.64E-04	4.65E-04	4.66E-04	4.67E-04	4.68E-04	4.69E-04	4.70E-04
propylene	1.04E-08	1.22E-06	2.76E-06	2.88E-06	4.28E-06	2.41E-06	3.06E-07	1.19E-07	0.00E+00	0.00E+00	2.59E-09	3.97E-04	3.98E-04	3.99E-04	4.00E-04	4.01E-04	4.02E-04	4.03E-04	4.03E-04	4.04E-04	4.05E-04	4.06E-04	4.06E-04
styrene	4.00E-08	4.70E-06	1.06E-05	1.11E-05	1.65E-05	9.32E-06	1.18E-06	4.60E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.57E-03
toluene	2.59E-06	2.52E-04	6.23E-04	6.68E-04	1.45E-03	7.83E-04	5.77E-05	5.09E-05	0.00E+00	1.94E-06	2.24E-05	7.47E-02	7.49E-02	7.50E-02	7.51E-02	7.53E-02	7.54E-02	7.55E-02	7.57E-02	7.58E-02	7.60E-02	7.61E-02	7.62E-02
xylene (total)	2.00E-06	2.05E-04	4.98E-04	5.23E-04	1.04E-03	5.70E-04	4.80E-05	3.51E-05	0.00E+00	1.12E-06	1.31E-05	6.24E-02	6.25E-02	6.26E-02	6.26E-02	6.28E-02	6.29E-02	6.30E-02	6.31E-02	6.32E-02	6.34E-02	6.35E-02	6.36E-02
aluminum	1.22E-04	2.46E-03	4.63E-03	5.79E-03	8.44E-03	6.93E-03	5.54E-04	3.16E-04	1.06E-04	1.04E-05	1.09E-04	5.63E-04	2.16E-03	3.77E-03	5.34E-03	6.94E-03	8.53E-03	1.01E-02	1.17E-02	1.33E-02	1.49E-02	1.65E-02	1.81E-02
ammonium ion	2.07E-07	4.60E-06	9.34E-06	1.09E-05	1.61E-05	1.28E-05	1.10E-06	6.04E-07	1.80E-07	1.77E-08	1.85E-07	1.53E-05	5.88E-05	1.02E-04	1.48E-04	1.89E-04	2.33E-04	2.76E-04	3.20E-04	3.63E-04	4.07E-04	4.50E-04	4.94E-04
antimony	2.46E-08	4.97E-07	9.63E-07	1.15E-06	1.69E-06	1.39E-06	1.11E-07	6.29E-08	2.17E-08	2.09E-09	2.19E-08	3.38E-07	1.37E-06	2.39E-06	3.40E-06	4.41E-06	5.43E-06	6.44E-06	7.45E-06	8.47E-06	9.48E-06	1.05E-05	1.15E-05
arsenic	3.10E-08	6.86E-07	1.38E-06	1.61E-06	2.39E-06	1.91E-06	1.64E-07	9.01E-08	2.75E-08	2.74E-09	2.80E-08	3.12E-06	3.47E-06	2.03E-07	8.59E-07	1.42E-06	1.97E-06	2.51E-06	3.06E-06	3.61E-06	4.15E-06	4.70E-06	5.24E-06
barium	2.86E-06	3.37E-04	9.23E-04	9.19E-04	1.50E-03	9.07E-04	1.39E-04	6.15E-05	1.83E-06	6.46E-07	3.27E-06	1.30E-04	4.85E-04	8.39E-04	1.19E-03	1.55E-03	1.90E-03	2.26E-03	2.61E-03	2.97E-03	3.32E-03	3.68E-03	4.03E-03
bromine	4.66E-08	1.32E-06	2.83E-06	3.21E-06	3.95E-06	3.54E-06	3.83E-07	1.86E-07	4.03E-08	4.25E-09	4.20E-08	2.41E-07	6.84E-07	1.13E-06	1.57E-06	2.00E-06	3.34E-06	3.76E-06	4.22E-06	4.68E-06	4.67E-06	5.11E-06	
cadmium	5.03E-08	1.02E-06	1.98E-06	2.36E-06	3.47E-06	2.85E-06	2.27E-07	1.29E-07	4.46E-08	4.29E-09	4.49E-08	1.58E-06	6.05E-06	1.05E-07	1.50E-07	1.99E-07	2.39E-07	2.84E-07	3.29E-07	3.74E-07	4.18E-07	4.63E-07	5.08E-07
chlorine	5.61E-06	1.59E-04	3.37E-04	3.70E-04	5.01E-04	4.01E-04	2.12E-05	1.29E-05	4.86E-06	4.83E-07	5.03E-06	2.12E-05	4.48E-05	7.53E-05	1.03E-04	1.29E-04	1.56E-04	1.83E-04	2.10E-04	2.37E-04	2.64E-04	2.91E-04	3.18E-04
chromium (VI)	1.87E-08	6.97E-07	1.65E-06	1.76E-06	2.76E-06	1.90E-06	2.27E-07	1.09E-07	1.95E-08	2.04E-09	1.75E-08	1.46E-07	5.34E-07	9.22E-07	1.31E-06	1.70E-06	2.09E-06	2.47E-06	2.86E-06	3.25E-06	3.64E-06	4.03E-06	4.41E-06
cobalt	1.74E-07	3.86E-06	7.25E-06	8.58E-06	1.27E-05	1.03E-05	8.57E-07	4.72E-07	1.54E-07	1.49E-08	1.55E-07	2.00E-07	6.38E-07	8.75E-07	1.25E-06	1.59E-06	1.93E-06	2.22E-06	2.58E-06	2.90E-06	3.34E-06	3.97E-06	3.91E-06
copper	5.27E-07	7.03E-05	1.94E-04	1.91E-04	3.14E-04	1.89E-04	2.92E-05	1.29E-05	2.72E-07	1.30E-07	6.23E-07	2.73E-05	1.02E-04	1.76E-04	2.50E-04	3.25E-04	3.99E-04	4.73E-04	5.48E-04	6.22E-04	6.97E-04	7.71E-04	8.46E-04
lead	9.07E-07	1.88E-05	3.70E-05	4.40E-05	6.48E-05	5.26E-05	4.30E-06	2.42E-06	8.00E-07	7.76E-08	8.10E-07	8.46E-07	3.22E-06	5.60E-06	7.97E-06	1.03E-05	1.27E-05	1.51E-05	1.75E-05	1.99E-05	2.22E-05	2.46E-05	2.70E-05
manganese	1.54E-06	4.02E-05	8.64E-05	9.73E-05	1.48E-04	1.11E-04	1.10E-05	5.68E-06	1.33E-06	1.44E-07	1.38E-06	8.22E-06	3.09E-05	5.31E-05	7.61E-05	9.88E-05	1.21E-04	1.44E-04	1.67E-04	1.89E-04	2.12E-04	2.35E-04	2.57E-04
mercury	2.58E-08	5.24E-07	1.01E-06	1.21E-06	1.78E-06	1.46E-06	1.17E-07	6.62E-08	2.28E-08	2.20E-09	2.30E-08	4.74E-08	1.82E-07	3.16E-07	4.59E-07	5.84E-07	7.18E-07	8.52E-07	9.87E-07	1.12E-06	1.26E-06	1.39E-06	1.52E-06
nickel	1.96E-07	6.00E-06	1.51E-05	1.68E-05	2.49E-05	1.62E-05	2.13E-06	9.96E-07	9.32E-08	1.50E-08	1.14E-07	1.67E-06	6.02E-06	1.04E-05	1.47E-05	1.91E-05	2.34E-05	2.78E-05	3.21E-05	3.65E-05	4.08E-05	4.52E-05	4.96E-05
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
phosphorous	2.57E-06	5.37E-05	1.09E-04	1.23E-04	1.93E-04	1.49E-04	1.23E-05	6.88E-06	2.26E-06	2.16E-07	2.29E-06	1.46E-05	5.72E-05	9.93E-05	1.42E-04	1.84E-04	2.26E-04	2.69E-04	3.11E-04	3.53E-04	3.95E-04	4.38E-04	4.80E-04
selenium	4.67E-08	2.24E-07	5.63E-07	9.24E-07	6.07E-07	7.79E-08	3.65E-08	3.62E-09	5.30E-10	4.45E-09	6.90E-08	2.47E-07	4.29E-07	6.10E-07	7.91E-07	9.72E-07	1.15E-06	1.33E-06	1.52E-06	1.70E-06	1.88E-06	2.06E-06	
silicon	3.17E-04	6.78E-03	1.39E-02	1.59E-02	2.39E-02	1.59E-02	1.83E-03	8.81E-04	2.79E-04	2.75E-05	2.83E-04	1.75E-03	6.7E-03	1.17E-02	1.66E-02	2.16E-02	2.65E-02	3.15E-02	3.64E-02	4.14E-02	4.63E-02	5.13E-02	5.62E-02
silver	1.29E-08	2.62E-07	5.07E-07	6.08E-07	8.90E-07	7.30E-07	5.83E-08	3.31E-08	1.14E-08	1.10E-09	1.15E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
sulfates	8.63E-06	4.89E-04	1.21E-03	1.24E-03	1.99E-03	1.24E-03	1.80E-04	7.84E-05	7.05E-06	9.82E-07	8.14E-06	1.63E-04	4.09E-04	6.58E-04	9.02E-04	1.15E-03	1.39E-03	1.64E-03	1.89E-03	2.13E-03	2.38E-03	2.63E-03	2.87E-03
thallium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.10E-08	8.07E-08	1.40E-07	2.00E-07	2.60E-07	3.19E-07	3.79E-07	4.39E-07	4.98E-07	5.58E-07	6.17E-07	6.77E-07
vanadium	4.47E-07	1.24E-05	2.74E-05	3.04E-05	4.66E-05	3.43E-05	3.54E-06	1.80E-06	3.84E-07	4.30E-08	4.07E-07	1.88E-06	7.05E-06	1.22E-05	1.74E-05	2.25E-05	2.77E-05	3.29E-05	3.81E-05	4.32E-05	4.84E-05	5.36E-05	5.87E-05
zinc	9.18E-07	2.73E-05	6.23E-05	6.83E-05	1.03E-04	7.44E-05	7.63E-06	3.89E-06	7.60E-07	7.60E-08	8.27E-07	8.53E-06	3.21E-05	5.67E-05	7.93E-05	1.03E-04	1.27E-04	1.50E-04	1.74E-04	1.97E-04	2.21E-04	2.45E-04	2.68E-04
Diesel PM	6.60E-04	1.97E-02	6.86E-02	7.77E-02	8.90E-02	5.59E-02	3.10E-03	1.18E-03	1.30E-04	3.00E-05	1.30E-04	7.17E-06	2.16E-05	3.61E-05	5.09E-05	6.50E-05	7.94E-05	9.39E-05	1.08E-04	1.23E-04	1.37E-04	1.52E-04	1.66E-04

[1] **Residential Maximum Grid No 484**

NA = Not Available
NC = Not Calculated

ug/m^3 = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-1.1A
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2017 Unmitigated Construction Through 2035 Operations - Lifetime Exposure
30-Year Adult Resident Scenario
(Based on Peak Location of Residential Cancer Risks[1])

Equations

Risk = Cair*DBR*EF*CF*A*ASF*ED*FAH*CPF

HQ = Cair / REL

Where: HQ = Hazard Quotient; Cair = Exposure Concentration; DBR = Daily Breathing Rate; ASF = Age sensitivity factor; EF = Fraction of Year; ED = Fraction of Averaging time; A = Absorption Fraction; FAH = Fraction of Time at Home; CF = Conversion Factor; CPF = Cancer Potency Factor

	Toxicity Criteria		Cancer Risk to Adult 30-Year Resident																			TOTAL
	EPA	CalEPA	Construction							Construction and Operations		Operation										Cancer Risk
TAC	Inhalation CPF ($mg/kg-day)^{-1}$	Inhalation CPF ($mg/kg-day)^{-1}$	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035 - 2046	for Resident for Max Location
1,2,4-trimethylbenzene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	1.0E-01	6.0E-01	1.78E-11	1.94E-09	8.99E-10	9.35E-10	1.40E-09	7.88E-10	9.97E-11	1.30E-07	1.30E-07	1.30E-07	1.30E-07	1.31E-07	1.31E-07	1.31E-07	1.31E-07	1.44E-08	1.44E-08	1.45E-08	1.74E-07	1.27E-06
2,2,4-trimethylpentane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	7.70E-03	1.0E-02	1.55E-13	1.68E-11	7.82E-12	8.13E-12	1.21E-11	6.85E-12	8.67E-13	1.13E-09	1.13E-09	1.13E-09	1.13E-09	1.14E-09	1.14E-09	1.14E-09	1.14E-09	1.25E-10	1.25E-10	1.26E-10	1.51E-09	1.10E-08
acrolein	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
benzene	2.73E-02	1.0E-01	4.94E-11	3.41E-09	9.42E-10	8.38E-10	1.29E-09	6.98E-10	7.55E-11	9.81E-08	9.83E-08	9.85E-08	9.87E-08	9.89E-08	9.91E-08	9.93E-08	9.95E-08	1.09E-08	1.09E-08	1.09E-08	1.32E-07	9.62E-07
cumene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cyclohexane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	8.70E-03	8.70E-03	8.27E-13	6.52E-11	3.57E-11	3.86E-11	1.01E-10	5.36E-11	2.80E-12	3.64E-09	3.64E-09	3.65E-09	3.66E-09	3.66E-09	3.67E-09	3.68E-09	3.68E-09	4.04E-10	4.05E-10	4.06E-10	4.88E-09	3.57E-08
cumene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ethylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	4.55E-02	2.10E-02	1.82E-12	1.97E-10	9.17E-11	9.53E-11	1.42E-10	8.03E-11	1.02E-11	1.32E-08	1.32E-08	1.33E-08	1.33E-08	1.33E-08	1.33E-08	1.34E-08	1.34E-08	1.47E-09	1.47E-09	1.47E-09	1.77E-08	1.29E-07
hexane, n- isoprene, except from	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
vegetative emission sources	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
naphthalene	1.19E-01	1.20E-01	3.10E-13	3.37E-11	1.66E-11	1.63E-11	2.43E-11	1.37E-11	1.73E-12	2.25E-09	2.26E-09	2.26E-09	2.27E-09	2.27E-09	2.28E-09	2.28E-09	2.28E-09	2.50E-10	2.51E-10	2.51E-10	3.02E-09	2.20E-08
propionaldehyde	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
propylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
styrene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
toluene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
xylene (total)	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
aluminum	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ammonium ion	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
antimony	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
arsenic	1.51E+01	1.20E+01	6.08E-11	1.23E-09	5.06E-10	5.92E-10	8.80E-10	7.00E-10	6.04E-11	6.66E-11	1.38E-10	2.23E-10	3.26E-10	4.10E-10	5.04E-10	5.98E-10	6.92E-10	8.66E-11	9.63E-11	1.07E-10	1.40E-09	8.68E-09
barium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
bromine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cadmium	6.30E+00	1.50E+01	1.22E-10	2.29E-09	9.08E-10	1.09E-09	1.59E-09	1.31E-09	1.04E-10	6.65E-11	4.82E-11	5.03E-11	8.95E-11	8.94E-11	1.10E-10	1.31E-10	1.51E-10	1.88E-11	2.10E-11	2.33E-11	3.08E-10	8.51E-09
chlorine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
chromium (VI)	4.20E+01	5.10E+02	1.54E-09	5.31E-08	2.98E-08	2.75E-08	4.32E-08	2.97E-08	3.55E-09	3.99E-09	8.98E-09	1.44E-08	2.07E-08	2.65E-08	3.28E-08	3.86E-08	4.47E-08	5.55E-09	6.21E-09	6.88E-09	9.05E-08	4.84E-07
cobalt	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
copper	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
lead	NA	4.20E-02	6.18E-12	1.18E-10	4.76E-11	5.68E-11	8.33E-11	6.76E-11	5.53E-12	4.19E-12	5.17E-12	7.30E-12	1.10E-11	1.33E-11	1.64E-11	1.94E-11	2.25E-11	2.79E-12	3.13E-12	3.46E-12	4.59E-11	5.40E-10
manganese	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
mercury	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
nickel	8.40E-01	9.10E-01	1.74E-11	8.16E-10	4.20E-10	4.34E-10	6.93E-10	4.92E-10	6.09E-11	7.43E-11	1.70E-10	2.69E-10	4.10E-10	5.31E-10	6.52E-10	7.74E-10	8.95E-10	1.11E-10	1.24E-10	1.38E-10	1.81E-09	8.88E-09
non-phosphate phosphorous	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Table 1-1.1C
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2017 Unmitigated Construction Through 2035 Operations - Lifetime Exposure
Child Resident Scenario
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Pasameters	3rd Trimester	Ages 0<2	Ages 2<9		Start Age	End Age
Daily Breathing Rate (DBR)	361 L/kg-d	1090 L/kg-d	861 L/kg-d	Child Resident	0	9 Year
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless	School Child	7	18 Year
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless	30-year Resident	0	30 Year
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	70-year Resident	0	70 Year
Age-adjustment (ASF)	10 unitless	10 unitless	3 unitless			
Fraction of Averaging Time (ED)	0.00357 unitless	0.01429 unitless	0.01429 unitless			
Fraction of Time at Home (FAH)	1.00 unitless	1.00 unitless	1.00 unitless			

	Concentration at Location w/Maximum Risk (ug/m³)																
	Construction											Operation					
TAC	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2024	2025	2026	2027	2028	
1,2,4-trimethylbenzene	3.28E-07	2.85E-05	8.72E-05	1.11E-04	1.45E-04	8.01E-05	7.95E-06	2.62E-06	0.00E+00	0.00E+00	8.20E-08	1.14E-02	1.15E-02	1.15E-02	1.15E-02	1.16E-02	
1,3-butadiene	1.84E-07	1.60E-05	4.89E-05	6.23E-05	8.13E-05	4.49E-05	4.46E-06	1.47E-06	0.00E+00	0.00E+00	4.60E-08	6.40E-03	6.42E-03	6.45E-03	6.47E-03	6.49E-03	
2,2,4-trimethylpentane	7.80E-07	6.77E-05	2.07E-04	2.64E-04	3.45E-04	1.91E-04	1.89E-05	6.24E-06	0.00E+00	0.00E+00	1.95E-07	2.71E-02	2.72E-02	2.73E-02	2.74E-02	2.75E-02	
acetaldehyde	9.60E-08	8.33E-06	2.55E-05	3.25E-05	4.24E-05	2.34E-05	2.33E-06	7.68E-07	0.00E+00	0.00E+00	2.40E-08	3.34E-03	3.35E-03	3.36E-03	3.37E-03	3.39E-03	
acrolein	4.40E-08	3.82E-06	1.17E-05	1.49E-05	1.94E-05	1.07E-05	1.07E-06	3.52E-07	0.00E+00	0.00E+00	1.10E-08	1.53E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	
benzene	2.97E-06	1.91E-04	2.78E-04	3.11E-04	4.55E-04	2.42E-04	2.03E-05	6.69E-06	0.00E+00	0.00E+00	2.09E-07	2.91E-02	2.92E-02	2.93E-02	2.94E-02	2.95E-02	
cumene	4.00E-09	3.47E-07	1.06E-06	1.35E-06	1.77E-06	9.77E-07	9.70E-08	3.20E-08	0.00E+00	0.00E+00	1.00E-09	1.39E-04	1.40E-04	1.40E-04	1.41E-04	1.41E-04	
cyclohexane	2.08E-07	1.80E-05	5.53E-05	7.04E-05	9.19E-05	5.08E-05	5.04E-06	1.66E-06	0.00E+00	0.00E+00	5.20E-08	7.24E-03	7.26E-03	7.29E-03	7.31E-03	7.34E-03	
ethylbenzene	5.88E-07	3.78E-05	1.48E-04	1.65E-04	1.93E-04	2.14E-04	8.63E-06	1.03E-05	0.00E+00	6.99E-07	7.51E-06	1.24E-02	1.24E-02	1.25E-02	1.25E-02	1.26E-02	
ethylene	2.16E-06	1.87E-04	5.73E-04	7.30E-04	9.52E-04	5.27E-04	5.23E-05	1.72E-05	0.00E+00	0.00E+00	5.39E-07	7.50E-02	7.53E-02	7.55E-02	7.58E-02	7.61E-02	
formaldehyde	5.36E-07	4.65E-05	1.42E-04	1.81E-04	2.37E-04	1.31E-04	1.30E-05	4.29E-06	0.00E+00	0.00E+00	1.34E-07	1.86E-02	1.87E-02	1.88E-02	1.88E-02	1.89E-02	
hexane, n-	5.40E-07	4.68E-05	1.44E-04	1.83E-04	2.39E-04	1.32E-04	1.31E-05	4.32E-06	0.00E+00	0.00E+00	1.35E-07	1.88E-02	1.89E-02	1.89E-02	1.90E-02	1.90E-02	
isoprene, except from vegetative emission sources	4.80E-08	4.16E-06	1.28E-05	1.62E-05	2.12E-05	1.17E-05	1.16E-06	3.84E-07	0.00E+00	0.00E+00	1.20E-08	1.67E-03	1.68E-03	1.68E-03	1.69E-03	1.69E-03	
methyl alcohol	4.00E-08	3.47E-06	1.06E-05	1.35E-05	1.77E-05	9.77E-06	9.70E-07	3.20E-07	0.00E+00	0.00E+00	1.00E-08	1.39E-03	1.40E-03	1.40E-03	1.41E-03	1.41E-03	
methyl ethyl ketone	8.00E-09	6.94E-07	2.13E-06	2.71E-06	3.53E-06	1.95E-06	1.94E-07	6.40E-08	0.00E+00	0.00E+00	2.00E-09	2.78E-04	2.79E-04	2.80E-04	2.81E-04	2.82E-04	
naphthalene	1.60E-08	1.38E-06	4.25E-06	5.42E-06	7.07E-06	3.91E-06	3.88E-07	1.28E-07	0.00E+00	0.00E+00	4.00E-09	5.57E-04	5.59E-04	5.61E-04	5.62E-04	5.64E-04	
propionaldehyde	1.20E-08	1.04E-06	3.19E-06	4.06E-06	5.30E-06	2.93E-06	2.91E-07	9.60E-08	0.00E+00	0.00E+00	3.00E-09	4.18E-04	4.19E-04	4.20E-04	4.22E-04	4.23E-04	
propylene	1.04E-06	8.99E-05	2.75E-04	3.51E-04	4.58E-04	2.53E-04	2.51E-05	8.29E-06	0.00E+00	0.00E+00	2.59E-07	3.60E-02	3.62E-02	3.63E-02	3.64E-02	3.65E-02	
styrene	4.00E-08	3.47E-06	1.06E-05	1.35E-05	1.77E-05	9.77E-06	9.70E-07	3.20E-07	0.00E+00	0.00E+00	1.00E-08	1.39E-03	1.40E-03	1.40E-03	1.41E-03	1.41E-03	
toluene	2.59E-06	1.88E-04	6.66E-04	7.83E-04	9.61E-04	8.30E-04	4.72E-05	3.62E-05	0.00E+00	1.94E-06	2.11E-05	6.78E-02	6.80E-02	6.82E-02	6.85E-02	6.87E-02	
xylene (total)	2.00E-06	1.52E-04	5.18E-04	6.23E-04	7.77E-04	6.02E-04	3.95E-05	2.50E-05	0.00E+00	1.12E-06	1.23E-05	5.66E-02	5.70E-02	5.72E-02	5.74E-02	5.74E-02	
aluminum	1.32E-04	1.76E-03	4.90E-03	6.68E-03	9.73E-03	7.05E-03	4.60E-04	2.21E-04	1.01E-04	3.46E-04	1.02E-04	7.09E-04	9.79E-04	1.29E-03	1.52E-03	1.79E-03	
ammonium ion	2.23E-07	3.30E-06	9.46E-06	1.27E-05	1.46E-05	1.30E-05	9.09E-07	4.19E-07	1.68E-07	1.61E-08	1.72E-07	1.93E-05	2.67E-05	3.41E-05	4.14E-05	4.88E-05	
antimony	2.64E-08	3.98E-07	9.79E-07	1.34E-06	1.48E-06	1.41E-06	9.20E-08	4.41E-08	2.01E-08	1.90E-09	2.03E-08	4.51E-07	6.23E-07	7.94E-07	9.66E-07	1.14E-06	
arsenic	3.38E-08	4.91E-07	1.39E-06	1.89E-06	2.15E-06	1.95E-06	1.35E-07	6.24E-08	2.55E-08	2.50E-09	2.67E-08	6.24E-07	2.45E-07	2.88E-07	3.29E-07	3.72E-07	
barium	3.50E-06	2.33E-04	9.13E-04	1.15E-03	1.63E-03	9.66E-04	1.08E-04	3.87E-05	1.55E-06	6.40E-07	3.20E-06	1.64E-04	2.23E-04	2.83E-04	3.42E-04	4.02E-04	
bromine	5.04E-08	9.42E-07	2.89E-06	3.82E-06	4.71E-06	3.65E-06	3.12E-07	1.31E-07	3.75E-08	3.30E-09	3.92E-08	3.02E-07	2.45E-07	1.88E-07	1.31E-07	7.34E-08	
cadmium	5.03E-08	1.02E-06	1.98E-06	2.36E-06	3.47E-06	2.89E-06	1.89E-07	9.05E-08	4.13E-08	3.90E-09	4.17E-08	1.99E-08	2.75E-08	3.50E-08	4.26E-08	5.02E-08	
chlorine	5.61E-06	1.94E-04	1.31E-03	1.84E-03	4.08E-03	2.28E-03	4.08E-04	1.36E-04	3.21E-05	1.98E-06	2.13E-05	1.40E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	
chromium (VI)	1.87E-08	6.97E-07	1.65E-06	1.76E-06	2.76E-06	1.90E-06	2.27E-07	1.09E-07	1.59E-08	2.04E-09	1.75E-08	1.46E-07	5.34E-07	9.22E-07	1.31E-06	1.70E-06	
cobalt	1.74E-07	3.89E-06	7.25E-06	8.39E-06	1.37E-05	1.14E-05	7.18E-07	1.45E-06	1.91E-09	1.64E-08	1.84E-07	2.43E-07	3.01E-07	3.60E-07	4.18E-07		
copper	5.27E-07	7.03E-05	1.94E-04	1.91E-04	3.14E-04	1.88E-04	2.92E-05	1.29E-05	2.72E-07	1.30E-07	6.23E-07	2.73E-05	1.02E-04	1.76E-04	2.50E-04	3.25E-04	
lead	9.07E-07	1.86E-05	3.70E-05	4.40E-05	6.48E-05	5.28E-05	4.30E-06	2.42E-06	8.03E-07	7.76E-08	8.10E-07	8.46E-07	3.22E-06	5.60E-06	7.97E-06	1.03E-05	
manganese	1.54E-06	4.42E-05	8.64E-05	9.75E-05	1.48E-04	1.11E-04	1.10E-05	8.68E-06	1.34E-06	1.44E-07	1.38E-06	8.22E-06	3.06E-05	5.35E-05	7.61E-05	9.88E-05	
mercury	2.58E-08	5.24E-07	1.01E-06	1.21E-06	1.78E-06	1.40E-06	1.17E-07	6.62E-08	2.28E-08	2.20E-09	2.30E-08	4.74E-08	1.82E-07	3.16E-07	4.50E-07	5.84E-07	
nickel	1.33E-07	4.19E-06	1.50E-05	1.92E-05	2.59E-05	1.70E-05	1.70E-06	6.47E-07	8.72E-08	1.42E-08	1.08E-07	2.11E-06	2.71E-06	3.31E-06	3.90E-06	4.50E-06	
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
phosphorus	2.76E-06	3.88E-05	1.08E-04	1.44E-04	1.63E-04	1.52E-04	1.02E-05	4.80E-06	2.10E-06	1.98E-07	2.13E-06	1.88E-05	2.60E-05	3.32E-05	4.03E-05	4.75E-05	
selenium	5.17E-09	1.57E-07	5.61E-07	7.18E-07	9.58E-07	6.37E-07	6.17E-08	2.38E-08	3.38E-09	5.00E-10	4.21E-09	8.32E-08	1.14E-07	1.44E-07	1.75E-07	2.05E-07	
silicon	3.42E-04	4.86E-03	1.36E-02	1.85E-02	2.09E-02	1.92E-02	1.31E-03	6.12E-04	2.59E-04	2.61E-04	2.64E-04	2.21E-03	3.05E-03	3.89E-03	4.72E-03	5.56E-03	
silver	1.39E-08	1.88E-07	5.11E-07	7.03E-07	7.77E-07	7.42E-07	4.84E-08	2.32E-08	1.06E-08	1.00E-09	1.07E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
sulfates	9.56E-06	3.44E-04	1.20E-03	1.52E-03	2.09E-03	1.30E-03	1.47E-04	5.45E-05	6.58E-06	9.24E-07	7.67E-06	2.03E-04	1.26E-04	4.94E-05	-2.76E-05	-1.05E-04	
thallium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.65E-08	3.66E-08	4.67E-08	5.68E-08	6.69E-08	
vanadium	4.86E-07	8.83E-06	2.75E-05	3.64E-05	4.46E-05	3.54E-05	2.86E-06	1.21E-06	3.57E-07	3.97E-08	3.81E-07	2.37E-06	3.24E-06	4.11E-06	4.98E-06	5.85E-06	
zinc	9.87E-07	1.93E-05	6.25E-05	8.16E-05	1.01E-04	7.69E-05	6.23E-06	2.64E-06	7.07E-07	6.91E-08	7.74E-07	1.08E-05	1.46E-05	1.85E-05	2.23E-05	2.62E-05	
Diesel PM	6.90E-04	1.57E-02	6.97E-02	8.95E-02	9.06E-02	5.56E-02	2.51E-03	8.50E-04	1.20E-04	2.02E-05	1.20E-04	8.21E-06	2.05E-05	3.28E-05	4.51E-05	5.74E-05	

[1] Residential Maximum Grid No. 493
NA = Not Available
NC = Not Calculated
ug/m³ = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-1.1B
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2017 Unmitigated Construction Through 2035 Operations - Lifetime Exposure
70-Year Adult Resident Scenario
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	3rd Trimester	Ages 0<2	Ages 2<9	Ages 2<16	Ages 16<30	Ages 30<70
Daily Breathing Rate (DBR)	361 L/kg-d	1090 L/kg-d	861 L/kg-d	745 L/kg-d	335 L/kg-d	230 L/kg-d
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L
Age-adjustment (ASF)	10 unitless	10 unitless	3 unitless	3 unitless	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.00357 unitless	0.01429 unitless	0.01429 unitless	0.01429 unitless	0.2 unitless	0.771 unitless
Fraction of Time at Home (FAH)	1.00 unitless	1.00 unitless	1.00 unitless	1 unitless	0.73 unitless	0.73 unitless

	Start Age	End Age
Child Resident	0	9 Year
School Child	7	18 Year
30-year Resident	0	30 Year
70-year Resident	0	70 Year

	Concentration at Location w/Maximum Risk (ug/m³)																
	Construction											Operation					
TAC	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029
1,2,4-trimethylbenzene	3.28E-07	3.85E-05	8.72E-05	9.07E-05	1.35E-04	7.64E-05	9.68E-06	3.77E-06	0.00E+00	0.00E+00	8.20E-08	1.26E-02	1.26E-02	1.26E-02	1.27E-02	1.27E-02	1.27E-02
1,3-butadiene	1.84E-07	2.16E-05	4.89E-05	5.09E-05	7.59E-05	4.29E-05	5.43E-06	2.12E-06	0.00E+00	0.00E+00	4.60E-08	7.05E-03	7.07E-03	7.08E-03	7.09E-03	7.11E-03	7.12E-03
2,2,4-trimethylpentane	7.80E-07	9.17E-05	2.07E-04	2.16E-04	3.22E-04	1.82E-04	2.30E-05	8.97E-06	0.00E+00	0.00E+00	1.95E-07	2.99E-02	3.00E-02	3.00E-02	3.01E-02	3.02E-02	3.03E-02
acetaldehyde	9.60E-08	1.13E-05	2.55E-05	2.65E-05	3.96E-05	2.24E-05	2.83E-06	1.10E-06	0.00E+00	0.00E+00	2.40E-08	3.68E-03	3.69E-03	3.70E-03	3.71E-03	3.72E-03	3.73E-03
acrolein	4.40E-08	5.17E-06	1.17E-05	1.22E-05	1.82E-05	1.03E-05	1.30E-06	5.06E-07	0.00E+00	0.00E+00	1.10E-08	1.69E-03	1.69E-03	1.70E-03	1.70E-03	1.71E-03	1.71E-03
benzene	3.06E-06	2.26E-04	3.08E-04	2.74E-04	4.21E-04	2.28E-04	2.47E-05	9.61E-06	0.00E+00	0.00E+00	2.09E-07	3.20E-02	3.21E-02	3.22E-02	3.23E-02	3.24E-02	3.24E-02
cumene	4.00E-09	4.70E-07	1.06E-06	1.11E-06	1.65E-06	9.32E-07	1.18E-07	4.60E-08	0.00E+00	0.00E+00	1.00E-09	1.63E-04	1.64E-04	1.64E-04	1.65E-04	1.65E-04	1.66E-04
cyclohexane	2.08E-07	2.44E-05	5.53E-05	5.75E-05	8.59E-05	4.85E-05	6.14E-06	2.39E-06	0.00E+00	0.00E+00	5.20E-08	7.97E-03	7.99E-03	8.00E-03	8.02E-03	8.04E-03	8.05E-03
ethylbenzene	5.88E-07	5.02E-05	1.34E-04	1.45E-04	3.76E-04	2.01E-04	1.05E-05	1.43E-05	0.00E+00	6.99E-07	7.84E-06	1.36E-02	1.37E-02	1.37E-02	1.37E-02	1.38E-02	1.38E-02
ethylene	2.16E-06	2.51E-04	5.77E-04	5.90E-04	8.90E-04	5.02E-04	6.29E-05	2.48E-05	0.00E+00	0.00E+00	5.39E-07	8.27E-02	8.28E-02	8.31E-02	8.33E-02	8.35E-02	8.38E-02
formaldehyde	5.36E-07	6.30E-05	1.43E-04	1.48E-04	2.21E-04	1.25E-04	1.58E-05	6.16E-06	0.00E+00	0.00E+00	1.34E-07	2.05E-02	2.06E-02	2.06E-02	2.07E-02	2.07E-02	2.08E-02
hexane, n-	5.40E-07	6.35E-05	1.45E-04	1.49E-04	2.23E-04	1.26E-04	1.58E-05	6.21E-06	0.00E+00	0.00E+00	1.35E-07	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02
isoprene, except from vegetative emission sources	4.80E-08	5.64E-06	1.28E-05	1.32E-05	1.98E-05	1.12E-05	1.42E-06	5.52E-07	0.00E+00	0.00E+00	1.20E-08	1.84E-03	1.84E-03	1.85E-03	1.85E-03	1.85E-03	1.86E-03
methyl alcohol	4.00E-08	4.70E-06	1.06E-05	1.10E-05	1.65E-05	9.32E-06	1.18E-06	4.60E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03
methyl ethyl ketone	8.00E-09	9.40E-07	2.13E-06	2.21E-06	3.30E-06	1.86E-06	2.36E-07	9.20E-08	0.00E+00	0.00E+00	2.00E-09	3.07E-04	3.07E-04	3.08E-04	3.09E-04	3.10E-04	3.10E-04
naphthalene	1.60E-08	1.88E-06	4.26E-06	4.42E-06	6.60E-06	3.73E-06	4.72E-07	1.84E-07	0.00E+00	0.00E+00	4.00E-09	6.15E-04	6.14E-04	6.16E-04	6.18E-04	6.19E-04	6.21E-04
propionaldehyde	1.20E-08	1.41E-06	3.19E-06	3.32E-06	4.95E-06	2.80E-06	3.54E-07	1.38E-07	0.00E+00	0.00E+00	3.00E-09	4.60E-04	4.61E-04	4.62E-04	4.63E-04	4.64E-04	4.64E-04
propylene	1.04E-06	1.22E-04	2.76E-04	2.85E-04	4.28E-04	2.41E-04	3.04E-05	1.19E-05	0.00E+00	0.00E+00	2.59E-07	3.98E-02	3.98E-02	3.99E-02	4.00E-02	4.01E-02	4.02E-02
styrene	4.00E-08	4.70E-06	1.06E-05	1.11E-05	1.65E-05	9.32E-06	1.18E-06	4.60E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03
toluene	2.59E-06	2.52E-04	6.28E-04	6.89E-04	1.45E-03	7.83E-04	5.77E-05	1.50E-05	0.00E+00	1.94E-06	2.11E-05	7.60E-02	7.61E-02	7.63E-02	7.65E-02	7.66E-02	7.68E-02
xylene (total)	2.00E-06	2.05E-04	4.96E-04	5.25E-04	1.04E-03	5.70E-04	4.80E-05	3.57E-05	0.00E+00	1.12E-06	1.23E-05	6.24E-02	6.25E-02	6.26E-02	6.28E-02	6.30E-02	6.31E-02
aluminum	1.32E-04	2.38E-03	4.62E-03	5.76E-03	9.48E-03	5.63E-03	7.09E-04	9.79E-04	1.29E-03	1.52E-03	1.79E-03	2.16E-03	3.75E-03	5.34E-03	6.94E-03	8.53E-03	1.01E-02
ammonium ion	2.07E-07	2.80E-06	9.34E-06	1.09E-05	1.61E-05	1.28E-05	1.10E-06	6.04E-07	1.80E-07	1.77E-08	1.85E-07	1.93E-05	5.88E-05	1.02E-04	1.46E-04	1.89E-04	2.33E-04
antimony	2.45E-08	4.97E-07	9.63E-07	1.15E-06	1.89E-06	1.39E-06	1.11E-07	6.29E-08	2.17E-08	2.09E-09	2.18E-08	3.95E-07	1.37E-06	2.36E-06	3.40E-06	4.49E-06	5.40E-06
arsenic	3.13E-08	6.86E-07	1.36E-06	1.61E-06	2.64E-06	1.94E-06	1.55E-07	8.97E-08	2.74E-08	2.74E-09	2.87E-08	3.47E-07	3.86E-07	1.58E-06	2.74E-06	3.97E-06	5.19E-06
barium	2.86E-06	3.37E-04	9.23E-04	9.15E-04	1.30E-03	9.07E-04	1.39E-04	6.19E-05	1.63E-06	8.49E-07	3.27E-06	1.30E-04	4.85E-04	8.39E-04	1.19E-03	1.55E-03	1.90E-03
bromine	4.66E-08	1.32E-06	2.89E-06	3.21E-06	4.96E-06	3.34E-06	4.28E-07	2.10E-07	3.94E-08	4.38E-09	4.00E-08	2.41E-07	6.84E-07	1.13E-06	1.57E-06	2.01E-06	2.45E-06
cadmium	5.03E-08	1.02E-06	1.98E-06	2.36E-06	3.47E-06	2.89E-06	2.27E-07	1.29E-07	4.49E-08	4.29E-09	4.49E-08	1.58E-08	6.05E-08	1.05E-07	1.50E-07	2.39E-07	2.84E-07
chlorine	5.61E-06	1.94E-04	1.31E-03	1.84E-03	4.08E-03	2.28E-03	4.08E-04	1.36E-04	3.21E-05	1.98E-06	2.13E-05	1.40E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03
chromium (VI)	1.87E-08	6.97E-07	1.65E-06	1.76E-06	2.76E-06	1.90E-06	2.27E-07	1.09E-07	1.59E-08	2.04E-09	1.75E-08	1.46E-07	5.34E-07	9.22E-07	1.31E-06	1.70E-06	2.09E-06
cobalt	1.74E-07	3.89E-06	7.25E-06	8.39E-06	1.37E-05	1.14E-05	7.18E-07	1.45E-06	1.91E-09	1.64E-08	1.84E-07	2.43E-07	3.01E-07	3.60E-07	4.18E-07	4.76E-07	5.34E-07
copper	5.27E-07	7.03E-05	1.94E-04	1.91E-04	3.14E-04	1.88E-04	2.92E-05	1.29E-05	2.72E-07	1.30E-07	6.23E-07	2.73E-05	1.02E-04	1.76E-04	2.50E-04	3.25E-04	3.99E-04
lead	9.07E-07	1.86E-05	3.70E-05	4.40E-05	6.48E-05	5.28E-05	4.30E-06	2.42E-06	8.03E-07	7.76E-08	8.10E-07	8.46E-07	3.22E-06	5.60E-06	7.97E-06	1.03E-05	1.27E-05
manganese	1.54E-06	4.42E-05	8.64E-05	9.75E-05	1.48E-04	1.11E-04	1.10E-05	8.68E-06	1.34E-06	1.44E-07	1.38E-06	8.22E-06	3.06E-05	5.35E-05	7.61E-05	9.88E-05	1.21E-04
mercury	2.58E-08	5.24E-07	1.01E-06	1.21E-06	1.78E-06	1.40E-06	1.17E-07	6.62E-08	2.28E-08	2.20E-09	2.30E-08	4.74E-08	1.82E-07	3.16E-07	4.50E-07	5.84E-07	7.16E-07
nickel	1.33E-07	6.00E-06	1.51E-05	1.56E-05	2.46E-05	1.62E-05	2.15E-06	9.34E-07	9.32E-08	1.50E-08	1.14E-07	1.67E-06	6.02E-06	1.04E-05	1.47E-05	1.91E-05	2.34E-05
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
phosphorus	2.57E-06	5.37E-05	1.08E-04	1.25E-04	1.85E-04	1.49E-04	1.23E-05	6.88E-06	2.29E-06	2.18E-07	2.29E-06	1.46E-05	5.72E-05	9.98E-05	1.42E-04	1.84E-04	2.26E-04
selenium	4.67E-09	2.24E-07	5.63E-07	5.84E-07	9.24E-07	6.07E-07	7.79E-08	3.69E-08	3.62E-09	5.30E-10	4.45E-09	6.60E-08	2.47E-07	4.29E-07	6.10E-07	7.91E-07	9.72E-07
silicon	3.17E-04	4.76E-03	1.36E-02	1.84E-02	2.35E-02	1.89E-02	1.59E-03	8.81E-04	2.79E-04	2.75E-04	2.83E-04	1.75E-03	6.71E-03	1.17E-02	1.66E-02	2.16E-02	2.65E-02
silver	1.29E-08	2.62E-07	5.07E-07	6.06E-07	8.90E-07	7.30E-07	5.83E-08	3.31E-08	1.14E-08	1.10E-09	1.15E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
sulfates	8.83E-06	4.89E-04	1.21E-03	1.31E-03	2.39E-03	1.71E-03	2.09E-04	7.84E-05	7.07E-06	9.82E-07	8.14E-06	1.61E-04	4.09E-04	6.56E-04	9.02E-04	1.15E-03	1.39E-03
thallium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.65E-08	8.07E-08	1.40E-07	2.00E-07	2.60E-07	3.19E-07
vanadium	4.47E-07	1.24E-05	2.74E-05	3.04E-05	4.66E-05	3.43E-05	3.54E-06	1.80E-06	3.84E-07	4.30E-08	4.07E-07	1.88E-06	7

Table 1-1.2
2015 OEHHA Hazard Calculation for LAX Landside Access Modernization Program, 2017 Unmitigated Construction Through 2035 Operations
Residential Scenario
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	3rd Trimester	Ages 0<2	Ages 2<9	Ages 2<16	Age s 16<30	Ages 16<7	Start Age	End Age
Daily Breathing Rate (DBR)	361 L/kg-d	1090 L/kg-d	861 L/kg-d	745 L/kg-d	335 L/kg-d	290	0	9 Year
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96	7	18 Year
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless	1	0	30 Year
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001	0	70 Year
Age-adjustment (ASF)	10 unitless	10 unitless	3 unitless	3 unitless	1 unitless	1		
Fraction of Averaging Time (ED)	0.00357 unitless	0.01429 unitless	0.01429 unitless	0.014286 unitless	0.2 unitless	0.771		
Fraction of Time at Home (FAH)	1.00 unitless	1.00 unitless	1.00 unitless	1 unitless	0.73 unitless	0.73		
School Child 8-hr Daily Breathing Rate (DBR)			640 L/kg-d	520 L/kg-d	240 L/kg-d			
School Child Fraction of Time at Home (FAH)			1 unitless	1 unitless	1 unitless			

	Concentration at Location w/Maximum Risk (ug/m^3)																	
	Construction										Operation							
TAC	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2035
1,2,4-trimethylbenzene	3.28E-07	3.21E-05	8.63E-05	1.03E-04	1.48E-04	8.41E-05	8.53E-06	3.12E-06	0.00E+00	0.00E+00	8.20E-08	1.16E-02	1.16E-02	1.17E-02	1.17E-02	1.17E-02	1.18E-02	1.20E-02	
1,3-butadiene	1.84E-07	1.80E-05	4.84E-05	5.80E-05	8.32E-05	4.72E-05	4.78E-06	1.75E-06	0.00E+00	0.00E+00	4.60E-08	6.49E-03	6.51E-03	6.53E-03	6.55E-03	6.57E-03	6.59E-03	6.61E-03	6.71E-03
2,2,4-trimethylpentane	7.80E-07	7.62E-05	2.05E-04	2.46E-04	3.53E-04	2.00E-04	2.03E-05	7.41E-06	0.00E+00	0.00E+00	1.95E-07	2.75E-02	2.76E-02	2.78E-02	2.79E-02	2.79E-02	2.80E-02	2.84E-02	
acetaldehyde	9.60E-08	9.38E-06	2.52E-05	3.02E-05	4.34E-05	2.46E-05	2.50E-06	9.12E-07	0.00E+00	0.00E+00	2.40E-08	3.39E-03	3.40E-03	3.41E-03	3.42E-03	3.43E-03	3.44E-03	3.45E-03	3.50E-03
acrolein	4.40E-08	4.30E-06	1.16E-05	1.39E-05	1.99E-05	1.13E-05	1.14E-06	4.18E-07	0.00E+00	0.00E+00	1.10E-08	1.55E-03	1.56E-03	1.56E-03	1.57E-03	1.57E-03	1.58E-03	1.58E-03	1.60E-03
benzene	3.00E-06	2.02E-04	2.85E-04	2.97E-04	4.69E-04	2.54E-04	2.71E-05	3.94E-06	0.00E+00	0.00E+00	3.09E-07	2.96E-02	2.97E-02	2.98E-02	2.99E-02	2.99E-02	3.00E-02	3.01E-02	
cumene	4.00E-09	3.91E-07	1.05E-06	1.26E-06	1.81E-06	1.03E-06	1.04E-07	3.80E-08	0.00E+00	0.00E+00	1.00E-09	1.41E-04	1.42E-04	1.42E-04	1.42E-04	1.42E-04	1.43E-04	1.44E-04	1.46E-04
cyclohexane	2.08E-07	2.03E-05	5.47E-05	6.55E-05	9.41E-05	5.33E-05	5.41E-06	1.98E-06	0.00E+00	0.00E+00	5.20E-08	7.34E-03	7.36E-03	7.38E-03	7.41E-03	7.43E-03	7.45E-03	7.47E-03	7.59E-03
ethylbenzene	5.88E-07	4.22E-05	1.37E-04	1.53E-04	2.15E-04	2.04E-04	9.20E-06	1.20E-05	0.00E+00	0.00E+00	6.96E-07	7.75E-02	1.26E-02	1.26E-02	1.27E-02	1.27E-02	1.28E-02	1.28E-02	1.30E-02
ethylene	2.16E-06	2.11E-04	5.67E-04	6.79E-04	9.75E-04	5.52E-04	5.61E-05	2.05E-05	0.00E+00	0.00E+00	5.39E-07	7.61E-02	7.63E-02	7.65E-02	7.68E-02	7.70E-02	7.72E-02	7.75E-02	7.86E-02
formaldehyde	5.36E-07	5.24E-05	1.41E-04	1.69E-04	2.42E-04	1.37E-04	1.39E-05	5.09E-06	0.00E+00	0.00E+00	1.34E-07	1.89E-02	1.90E-02	1.90E-02	1.91E-02	1.91E-02	1.92E-02	1.93E-02	1.95E-02
hexane, n- isoprene, except from vegetative emission sources	5.40E-07	5.28E-05	1.42E-04	1.70E-04	2.44E-04	1.38E-04	1.40E-05	5.13E-06	0.00E+00	0.00E+00	1.35E-07	1.91E-02	1.91E-02	1.92E-02	1.92E-02	1.93E-02	1.93E-02	1.94E-02	1.97E-02
methyl alcohol	4.80E-08	4.69E-06	1.26E-05	1.51E-05	2.17E-05	1.23E-05	1.25E-06	4.56E-07	0.00E+00	0.00E+00	1.20E-08	1.69E-03	1.70E-03	1.70E-03	1.71E-03	1.71E-03	1.72E-03	1.72E-03	1.75E-03
methyl ethyl ketone	4.00E-08	3.91E-06	1.05E-05	1.26E-05	1.81E-05	1.03E-05	1.04E-06	3.80E-07	0.00E+00	0.00E+00	1.00E-08	1.41E-03	1.42E-03	1.42E-03	1.42E-03	1.43E-03	1.43E-03	1.44E-03	1.46E-03
methyl tert-butyl ketone	8.00E-09	7.82E-07	2.10E-06	2.52E-06	3.62E-06	2.05E-06	2.08E-07	7.60E-08	0.00E+00	0.00E+00	2.00E-09	2.82E-04	2.83E-04	2.84E-04	2.85E-04	2.86E-04	2.87E-04	2.87E-04	2.92E-04
naphthalene	1.60E-08	1.56E-06	4.21E-06	5.04E-06	7.24E-06	4.10E-06	4.16E-07	1.52E-07	0.00E+00	0.00E+00	4.00E-09	5.64E-04	5.66E-04	5.68E-04	5.70E-04	5.71E-04	5.73E-04	5.75E-04	5.83E-04
propionaldehyde	1.20E-08	1.17E-06	3.16E-06	3.78E-06	5.43E-06	3.08E-06	3.12E-07	1.14E-07	0.00E+00	0.00E+00	3.00E-09	4.23E-04	4.25E-04	4.27E-04	4.28E-04	4.30E-04	4.31E-04	4.32E-04	4.38E-04
propylene	1.04E-06	1.01E-04	2.72E-04	3.26E-04	4.69E-04	2.65E-04	2.69E-05	9.84E-06	0.00E+00	0.00E+00	2.59E-07	3.65E-02	3.67E-02	3.68E-02	3.69E-02	3.70E-02	3.71E-02	3.72E-02	3.78E-02
styrene	4.00E-08	3.91E-06	1.05E-05	1.26E-05	1.81E-05	1.03E-05	1.04E-06	3.80E-07	0.00E+00	0.00E+00	1.00E-08	1.41E-03	1.42E-03	1.42E-03	1.42E-03	1.43E-03	1.43E-03	1.44E-03	1.46E-03
toluene	2.59E-06	2.11E-04	6.32E-04	7.28E-04	1.03E-03	8.13E-04	5.06E-05	4.24E-05	0.00E+00	0.00E+00	1.94E-06	2.18E-01	6.89E-02	6.91E-02	6.94E-02	6.96E-02	6.98E-02	7.00E-02	7.10E-02
xylene (total)	2.00E-06	1.71E-04	4.98E-04	5.79E-04	8.24E-04	5.98E-04	4.23E-05	2.93E-05	0.00E+00	0.00E+00	1.12E-06	1.27E-05	5.74E-02	5.76E-02	5.78E-02	5.79E-02	5.79E-02	5.80E-02	5.85E-02
aluminum	1.26E-04	2.07E-03	4.94E-03	6.65E-03	8.28E-03	7.48E-03	4.91E-04	2.56E-04	1.03E-04	9.49E-06	1.04E-04	6.31E-04	1.11E-03	1.60E-03	2.08E-03	2.56E-03	3.05E-03	3.53E-03	5.95E-03
ammonium ion	2.13E-07	3.81E-06	9.55E-06	1.26E-05	1.62E-05	1.39E-05	9.73E-07	4.80E-07	1.71E-07	1.61E-08	1.77E-07	1.70E-05	3.04E-05	4.36E-05	5.67E-05	6.99E-05	8.31E-05	9.63E-05	1.62E-04
antimony	2.53E-08	4.14E-07	9.87E-07	1.33E-06	1.65E-06	1.50E-06	9.80E-08	5.11E-08	2.05E-08	1.90E-09	2.09E-08	4.01E-07	7.09E-07	1.02E-06	1.32E-06	1.63E-06	1.94E-06	2.25E-06	3.78E-06
arsenic	3.23E-08	5.69E-07	1.41E-06	1.86E-06	2.39E-06	2.07E-06	1.45E-07	7.28E-08	2.60E-08	2.50E-09	2.68E-08	1.02E-07	1.80E-07	2.57E-07	3.35E-07	4.13E-07	4.90E-07	5.68E-07	9.55E-07
barium	3.45E-06	2.72E-04	9.26E-04	1.07E-03	1.73E-03	1.16E-03	7.14E-05	5.27E-05	1.57E-05	6.40E-07	3.23E-06	1.46E-04	2.53E-04	3.60E-04	4.67E-04	5.74E-04	6.82E-04	7.89E-04	1.32E-03
bromine	4.83E-08	1.09E-06	2.93E-06	3.71E-06	5.11E-06	3.90E-06	3.31E-07	1.50E-07	3.82E-08	3.90E-09	4.03E-08	2.69E-07	2.99E-07	3.29E-07	3.60E-07	3.90E-07	4.20E-07	4.50E-07	6.00E-07
cadmium	5.19E-08	8.49E-07	2.03E-06	2.73E-06	3.40E-06	3.07E-06	2.01E-07	1.05E-07	4.21E-08	3.90E-09	4.29E-08	1.77E-06	3.13E-06	4.48E-06	5.84E-06	7.19E-06	8.55E-06	9.90E-06	
chlorine	5.79E-06	1.27E-04	3.36E-04	4.27E-04	5.81E-04	4.48E-04	3.74E-05	1.70E-05	4.61E-06	4.40E-07	4.81E-06	2.36E-05	1.72E-05	1.09E-05	4.51E-06	-1.85E-06	-8.22E-06	-1.46E-05	-4.64E-05
chromium (VI)	1.98E-08	5.70E-07	1.67E-06	2.06E-06	3.00E-06	2.14E-06	1.96E-07	8.57E-08	1.47E-08	1.91E-09	1.68E-08	1.64E-07	2.76E-07	3.88E-07	5.00E-07	6.12E-07	7.24E-07	8.36E-07	1.40E-06
cobalt	1.80E-07	3.07E-06	7.41E-06	9.86E-06	1.25E-05	1.10E-05	7.57E-07	3.83E-07	1.46E-07	1.35E-08	1.49E-07	2.24E-07	2.22E-07	2.20E-07	2.19E-07	2.17E-07	2.16E-07	2.14E-07	2.06E-07
copper	6.48E-07	5.67E-05	1.95E-04	2.25E-04	3.64E-04	2.21E-04	2.49E-05	9.91E-06	2.64E-07	1.29E-07	6.16E-07	3.06E-05	5.30E-05	7.53E-05	9.77E-05	1.20E-04	1.42E-04	1.65E-04	
lead	9.36E-07	1.57E-05	3.80E-05	5.08E-05	6.38E-05	5.80E-05	1.96E-06	7.58E-07	7.06E-08	7.75E-07	9.48E-07	1.67E-06	2.39E-06	3.11E-06	3.83E-06	4.55E-06	5.27E-06	8.86E-06	
manganese	1.60E-06	3.31E-05	8.80E-05	1.13E-04	1.53E-04	1.22E-04	9.58E-06	4.53E-06	1.26E-06	1.32E-07	1.33E-06	9.21E-06	1.66E-05	2.27E-05	2.95E-05	3.62E-05	4.30E-05	4.97E-05	
mercury	2.66E-08	4.35E-07	1.04E-06	1.40E-06	1.74E-06	1.57E-06	1.03E-07	5.38E-08	2.16E-08	2.00E-09	2.20E-08	5.31E-08	9.38E-08	1.34E-07	1.75E-07	2.16E-07	2.56E-07	2.97E-07	5.01E-07
nickel	1.28E-07	4.89E-06	1.52E-05	1.82E-05	2.77E-05	1.85E-05	1.85E-06	7.76E-07	8.87E-08	1.42E-08	1.11E-07	1.87E-06	3.09E-06	4.30E-06	5.51E-06	6.72E-06	7.93E-06	9.14E-06	1.52E-05
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
phosphorous	2.64E-06	4.46E-05	1.08E-04	1.45E-04	1.82E-04	1.62E-04	1.08E-05	5.57E-06	2.14E-06	1.98E-07	2.19E-06	2.96E-05	4.24E-05	5.52E-05	6.80E-05	8.08E-05	9.36E-05	1.05E-04	
selenium	4.99E-09	1.82E-07	5.68E-07	6.83E-07	1.03E-06	6.93E-07	6.71E-08	2.85E-08	3.44E-09	5.00E-10	4.30E-09	7.41E-08	1.29E-07	1.84E-07	2.38E-07	2.93E-07	3.48E-07	4.03E-07	6.77E-07
silicon	3.27E-04	5.63E-03	1.38E-02	1.83E-02	2.33E-02	2.04E-02	1.40E-03	7.12E-04	2.64E-04	2.51E-05	2.71E-04	1.97E-03	3.47E-03	4.97E-03	6.47E-03	7.97E-03	9.47E-03	1.10E-02	1.85E-02
silver	1.33E-08	2.18E-07	5.20E-07	7.00E-07	8.71E-07	7.87E-07	5.16E-08	2.69E-08	1.08E-08	1.00E-09	1.10E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
sulfates	9.20E-06	4.02E-04	1.21E-03	1.44E-03	2.20E-03	1.39E-03	1.55E-04	6.17E-05	6.70E-06	9.24E-07	7.85E-06	1.82E-04	1.63E-04	1.44E-04	1.25E-04	1.06E-04	8.71E-05	6.81E-05	-2.66E-05
thallium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.36E-08	4.17E-08	5.98E-08	7.78E-08	9.59E-08	1.14E-07	1.32E-07	2.22E-07
vanadium	4.67E-07	1.02E-05	2.78E-05	3.54E-05	4.88E-05	3.80E-05	3.08E-06	1.43E-06	3.64E-07	3.97E-08	3.91E-07	2.11E-06	3.67E-06	5.23E-06	6.79E-06	8.36E-06	9.92E-06	1.15E-05	1.93E-05
zinc	9.47E-07	2.24E-05	6.32E-05	7.92E-05	1.10E-04	8.26E-05	6.70E-06	3.09E-06	7.20E-07	6.91E-08	7.94E-07	9.57E-06	1.66E-05	2.36E-05	3.07E-05	3.77E-05	4.48E-05	5.18E-05	8.70E-05
Diesel PM	6.70E-04	1.72E-02	6.88E-02	8.59E-02	9.41E-02	5.93E-02	2.71E-03	9.70E-04	1.30E-04	2.00E-05	1.30E-04	7.57E-06	1.96E-05	3.16E-05	4.36E-05	5.56E-05	6.76E-05	7.97E-05	1.40E-04

[1] Residential Maximum Grid No. 494

NA = Not Available
NC = Not Calculated

ug/m^3 = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-1.1D
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2017 Unmitigated Construction Through 2035 Operations - Lifetime Exposure
School Child Scenario, 9-year and 12-year
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	Ages 2<9	Ages 2<16	Ages 16<30
Daily Breathing Rate (DBR)	861 L/kg-d	745 L/kg-d	335 L/kg-d
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L
Age-adjustment (ASF)	3 unitless	3 unitless	1 unitless
Fraction of Averaging Time (ED)	0.01429 unitless	0.01429 unitless	0.01429 unitless
Fraction of Time at Home (FAH)	1.00 unitless	1 unitless	0.73 unitless
School Child 8-hr Daily Breathing Rate (DBR)	640 L/kg-d	520 L/kg-d	240 L/kg-d
School Child Fraction of Time at Home (FAH)	1 unitless	1 unitless	1 unitless

	Start Age	End Age
Child Resident	0	9
School Child 9-yr	7	15
School Child 12-yr	7	18
30-year Resident	0	30
70-year Resident	0	70

	Concentration at Location w/Maximum Risk (ug/m^3)																	
	Construction										Operations							
TAC	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030
1,2,4-trimethylbenzene	3.28E-07	3.21E-05	8.63E-05	1.03E-04	1.48E-04	8.41E-05	8.53E-06	3.12E-06	0.00E+00	0.00E+00	8.20E-08	1.16E-02	1.16E-02	1.16E-02	1.17E-02	1.17E-02	1.17E-02	1.18E-02
1,3-butadiene	1.84E-07	1.80E-05	4.84E-05	5.80E-05	8.33E-05	4.72E-05	4.78E-06	1.75E-06	0.00E+00	0.00E+00	4.60E-08	6.49E-03	6.51E-03	6.53E-03	6.55E-03	6.57E-03	6.59E-03	6.61E-03
2,2,4-trimethylpentane	7.80E-07	7.62E-05	2.05E-04	2.46E-04	3.53E-04	2.00E-04	2.03E-05	7.41E-06	0.00E+00	0.00E+00	1.95E-07	2.75E-02	2.76E-02	2.77E-02	2.78E-02	2.79E-02	2.79E-02	2.80E-02
acetaldehyde	9.60E-08	9.38E-06	2.52E-05	3.02E-05	4.34E-05	2.46E-05	2.50E-06	9.12E-07	0.00E+00	0.00E+00	2.40E-08	3.39E-03	3.40E-03	3.41E-03	3.42E-03	3.43E-03	3.44E-03	3.45E-03
acrolein	4.40E-08	4.30E-06	1.16E-05	1.39E-05	1.99E-05	1.13E-05	1.14E-06	4.18E-07	0.00E+00	0.00E+00	1.10E-08	1.55E-03	1.56E-03	1.56E-03	1.57E-03	1.57E-03	1.58E-03	1.58E-03
benzene	3.00E-06	2.02E-04	2.85E-04	2.97E-04	4.69E-04	2.54E-04	2.71E-05	3.94E-06	0.00E+00	0.00E+00	3.09E-07	2.96E-02	2.97E-02	2.98E-02	2.99E-02	2.99E-02	3.00E-02	3.01E-02
cumene	4.00E-09	3.91E-07	1.05E-06	1.26E-06	1.81E-06	1.03E-06	1.04E-07	3.80E-08	0.00E+00	0.00E+00	1.00E-09	1.41E-04	1.42E-04	1.42E-04	1.42E-04	1.42E-04	1.43E-04	1.44E-04
cyclohexane	2.08E-07	2.03E-05	5.47E-05	6.55E-05	9.41E-05	5.33E-05	5.41E-06	1.98E-06	0.00E+00	0.00E+00	5.20E-08	7.34E-03	7.36E-03	7.38E-03	7.41E-03	7.43E-03	7.45E-03	7.47E-03
ethylbenzene	5.88E-07	4.22E-05	1.37E-04	1.53E-04	2.15E-04	2.04E-04	9.20E-06	1.20E-05	0.00E+00	0.00E+00	6.96E-07	7.75E-06	1.26E-02	1.26E-02	1.27E-02	1.27E-02	1.28E-02	1.28E-02
ethylene	2.16E-06	2.11E-04	5.67E-04	6.79E-04	9.75E-04	5.52E-04	5.61E-05	2.05E-05	0.00E+00	0.00E+00	5.39E-07	7.61E-02	7.63E-02	7.65E-02	7.68E-02	7.70E-02	7.72E-02	7.75E-02
formaldehyde	5.36E-07	5.24E-05	1.41E-04	1.69E-04	2.42E-04	1.37E-04	1.39E-05	5.09E-06	0.00E+00	0.00E+00	1.34E-07	1.89E-02	1.90E-02	1.90E-02	1.91E-02	1.91E-02	1.92E-02	1.93E-02
hexane, n- isoprene, except from vegetative emission sources	5.40E-07	5.28E-05	1.42E-04	1.70E-04	2.44E-04	1.38E-04	1.40E-05	5.13E-06	0.00E+00	0.00E+00	1.35E-07	1.91E-02	1.91E-02	1.92E-02	1.92E-02	1.93E-02	1.93E-02	1.94E-02
methyl alcohol	4.80E-08	4.69E-06	1.26E-05	1.51E-05	2.17E-05	1.23E-05	1.25E-06	4.56E-07	0.00E+00	0.00E+00	1.20E-08	1.69E-03	1.70E-03	1.70E-03	1.71E-03	1.71E-03	1.72E-03	1.72E-03
methyl ethyl ketone	4.00E-08	3.91E-06	1.05E-05	1.26E-05	1.81E-05	1.03E-05	1.04E-06	3.80E-07	0.00E+00	0.00E+00	1.00E-08	1.41E-03	1.42E-03	1.42E-03	1.42E-03	1.43E-03	1.43E-03	1.44E-03
methyl tert-butyl ketone	8.00E-09	7.82E-07	2.10E-06	2.52E-06	3.62E-06	2.05E-06	2.08E-07	7.60E-08	0.00E+00	0.00E+00	2.00E-09	2.82E-04	2.83E-04	2.84E-04	2.85E-04	2.86E-04	2.87E-04	2.87E-04
naphthalene	1.60E-08	1.56E-06	4.21E-06	5.04E-06	7.24E-06	4.10E-06	4.16E-07	1.52E-07	0.00E+00	0.00E+00	4.00E-09	5.64E-04	5.66E-04	5.68E-04	5.70E-04	5.71E-04	5.73E-04	5.75E-04
propionaldehyde	1.20E-08	1.17E-06	3.16E-06	3.78E-06	5.43E-06	3.08E-06	3.12E-07	1.14E-07	0.00E+00	0.00E+00	3.00E-09	4.23E-04	4.25E-04	4.26E-04	4.27E-04	4.29E-04	4.30E-04	4.31E-04
propylene	1.04E-06	1.01E-04	2.72E-04	3.26E-04	4.69E-04	2.65E-04	2.69E-05	9.84E-06	0.00E+00	0.00E+00	2.59E-07	3.65E-02	3.67E-02	3.68E-02	3.69E-02	3.70E-02	3.71E-02	3.72E-02
styrene	4.00E-08	3.91E-06	1.05E-05	1.26E-05	1.81E-05	1.03E-05	1.04E-06	3.80E-07	0.00E+00	0.00E+00	1.00E-08	1.41E-03	1.42E-03	1.42E-03	1.42E-03	1.43E-03	1.43E-03	1.44E-03
toluene	2.59E-06	2.11E-04	6.32E-04	7.28E-04	1.03E-03	8.13E-04	5.06E-05	4.24E-05	0.00E+00	0.00E+00	1.94E-06	2.18E-05	6.87E-02	6.89E-02	6.91E-02	6.94E-02	6.96E-02	7.00E-02
xylene (total)	2.00E-06	1.71E-04	4.98E-04	5.79E-04	8.24E-04	5.98E-04	4.23E-05	2.93E-05	0.00E+00	0.00E+00	1.12E-06	1.27E-05	5.74E-02	5.76E-02	5.78E-02	5.79E-02	5.79E-02	5.80E-02
aluminum	1.26E-04	2.07E-03	4.94E-03	6.65E-03	8.28E-03	7.48E-03	4.91E-04	2.56E-04	1.03E-04	9.49E-06	1.04E-04	6.31E-04	1.11E-03	1.60E-03	2.08E-03	2.56E-03	3.05E-03	3.53E-03
ammonium ion	2.13E-07	3.81E-06	9.55E-06	1.26E-05	1.62E-05	1.39E-05	9.73E-07	4.88E-07	1.71E-07	1.61E-08	1.77E-07	1.70E-05	3.04E-05	4.36E-05	5.67E-05	6.99E-05	8.31E-05	9.63E-05
antimony	2.53E-08	4.14E-07	9.87E-07	1.33E-06	1.65E-06	1.50E-06	9.80E-08	5.11E-08	2.05E-08	1.90E-09	2.09E-08	4.01E-07	7.09E-07	1.02E-06	1.32E-06	1.63E-06	1.94E-06	2.25E-06
arsenic	3.23E-08	5.69E-07	1.41E-06	1.86E-06	2.39E-06	2.07E-06	1.45E-07	7.28E-08	2.60E-08	2.50E-09	2.68E-08	1.02E-07	1.80E-07	2.57E-07	3.35E-07	4.13E-07	4.90E-07	5.68E-07
barium	3.45E-06	2.72E-04	9.26E-04	1.07E-03	1.73E-03	1.16E-03	7.14E-05	5.27E-05	1.57E-05	6.40E-07	3.23E-06	1.46E-04	2.53E-04	3.60E-04	4.67E-04	5.74E-04	6.82E-04	7.89E-04
bromine	4.83E-08	1.09E-06	2.93E-06	3.71E-06	5.11E-06	3.90E-06	3.31E-07	1.50E-07	3.82E-08	3.90E-09	4.03E-08	2.69E-07	2.99E-07	3.29E-07	3.60E-07	3.90E-07	4.20E-07	4.50E-07
cadmium	5.19E-08	8.49E-07	2.03E-06	2.73E-06	3.40E-06	3.07E-06	2.01E-07	1.05E-07	4.21E-08	3.90E-09	4.29E-08	1.77E-08	3.13E-08	4.48E-08	5.84E-08	7.19E-08	8.55E-08	9.90E-08	
chlorine	5.79E-06	1.27E-04	3.36E-04	4.27E-04	5.81E-04	4.48E-04	3.74E-05	1.70E-05	4.61E-06	4.40E-07	4.81E-06	2.36E-05	1.72E-05	1.09E-05	4.51E-06	-1.85E-06	-8.22E-06	-1.46E-05	
chromium (VI)	1.98E-08	5.70E-07	1.67E-06	2.06E-06	3.00E-06	2.14E-06	1.96E-07	8.57E-08	1.47E-08	1.91E-09	1.68E-08	1.64E-07	2.76E-07	3.88E-07	5.00E-07	6.12E-07	7.24E-07	8.36E-07	
cobalt	1.80E-07	3.07E-06	7.41E-06	9.86E-06	1.25E-05	1.10E-05	7.57E-07	3.83E-07	1.46E-07	1.35E-08	1.49E-07	2.24E-07	2.22E-07	2.20E-07	2.19E-07	2.17E-07	2.16E-07	2.14E-07	
copper	6.48E-07	5.67E-05	1.95E-04	2.25E-04	3.64E-04	2.21E-04	2.49E-05	9.91E-06	2.64E-07	1.29E-07	6.16E-07	3.06E-05	5.30E-05	7.53E-05	9.77E-05	1.20E-04	1.42E-04	1.65E-04	
lead	9.36E-07	1.57E-05	3.80E-05	5.08E-05	6.38E-05	5.68E-05	3.80E-06	1.96E-06	7.58E-07	7.06E-08	7.75E-07	9.48E-07	1.67E-06	2.39E-06	3.11E-06	3.83E-06	4.55E-06	5.27E-06	
manganese	1.60E-06	3.31E-05	8.80E-05	1.13E-04	1.53E-04	1.22E-04	9.58E-06	4.53E-06

Table 1-1.4
2015 OEHHA Hazard Calculation for LAX Landside Access Modernization Program, 2017 Unmitigated Construction Through 2035 Operations
Worker Scenario
(Based on Peak Location of Commercial Cancer Risks[1])

Exposure Parameters	Ages 16<30	Ages 16<70
Worker 8-hr Daily Breathing Rate (DBR)	240 L/kg-d	230 L/kg-d
Fraction of Year (EF)	0.68 unitless	0.68 unitless
Absorption Fraction (A)	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L
Age-adjustment (ASF)	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.01 unitless	0.157 unitless
Worker Adjustment Factor (WAH)	1 unitless	1 unitless

	Concentration at Location w/Maximum Risk (ug/m^3)																			
	Construction											Operation								
TAC	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
1,2,4-trimethylbenzene	6.56E-07	7.68E-05	9.05E-04	1.15E-04	6.73E-05	3.66E-05	2.00E-05	7.76E-06	8.20E-08	8.20E-08	2.46E-07	7.85E-03	7.88E-03	7.91E-03	7.93E-03	7.96E-03	7.99E-03	8.01E-03	8.14E-03
1,3-butadiene	3.68E-07	4.31E-05	5.08E-04	6.47E-05	3.78E-05	2.05E-05	1.12E-05	4.37E-06	4.60E-08	4.60E-08	1.38E-07	4.41E-03	4.42E-03	4.44E-03	4.45E-03	4.47E-03	4.48E-03	4.49E-03	4.57E-03
2,2,4-trimethylpentane	1.59E-06	1.83E-04	2.15E-03	2.74E-04	1.60E-04	8.70E-05	4.76E-05	1.85E-05	1.95E-07	1.95E-07	5.85E-07	1.87E-02	1.87E-02	1.88E-02	1.89E-02	1.89E-02	1.90E-02	1.91E-02	1.94E-02
acetaldehyde	1.92E-07	2.25E-05	2.65E-04	3.38E-05	1.97E-05	1.07E-05	5.86E-06	2.28E-06	2.40E-08	2.40E-08	7.20E-08	2.30E-03	2.30E-03	2.31E-03	2.32E-03	2.33E-03	2.34E-03	2.35E-03	2.38E-03
acrolein	8.80E-08	1.03E-05	1.21E-04	1.55E-05	9.03E-06	4.91E-06	2.68E-06	1.05E-06	1.10E-08	1.10E-08	3.30E-08	1.05E-03	1.06E-03	1.06E-03	1.06E-03	1.07E-03	1.07E-03	1.07E-03	1.09E-03
benzene	5.30E-05	4.23E-04	2.95E-03	5.02E-04	2.25E-04	1.15E-04	5.10E-05	1.99E-05	2.09E-07	2.09E-07	6.27E-07	2.00E-02	2.01E-02	2.02E-02	2.02E-02	2.03E-02	2.04E-02	2.04E-02	2.08E-02
cumene	8.00E-09	9.37E-07	1.10E-05	1.41E-06	8.21E-07	4.46E-07	2.44E-07	9.50E-08	1.00E-09	1.00E-09	3.00E-09	9.58E-05	9.61E-05	9.64E-05	9.67E-05	9.71E-05	9.74E-05	9.77E-05	9.93E-05
cyclohexane	4.18E-07	4.87E-05	5.74E-04	7.32E-05	4.27E-05	2.32E-05	1.27E-05	4.94E-06	5.20E-08	5.20E-08	1.56E-07	4.98E-03	5.00E-03	5.01E-03	5.02E-03	5.03E-03	5.06E-03	5.08E-03	5.16E-03
ethylbenzene	9.44E-07	9.99E-05	1.13E-03	2.21E-04	3.07E-04	1.04E-04	2.17E-05	3.86E-05	8.90E-08	1.71E-06	1.63E-05	8.52E-03	8.55E-03	8.58E-03	8.61E-03	8.64E-03	8.67E-03	8.70E-03	8.84E-03
ethylene	4.31E-06	5.05E-04	5.95E-03	7.58E-04	4.43E-04	2.40E-04	1.32E-04	5.12E-05	5.39E-07	5.39E-07	1.62E-06	5.16E-02	5.18E-02	5.20E-02	5.21E-02	5.23E-02	5.25E-02	5.27E-02	5.35E-02
formaldehyde	1.07E-06	1.26E-04	1.48E-03	1.89E-04	1.10E-04	5.98E-05	3.27E-05	1.27E-05	1.34E-07	1.34E-07	4.02E-07	1.28E-02	1.29E-02	1.29E-02	1.30E-02	1.30E-02	1.31E-02	1.31E-02	1.33E-02
hexane, n- isoprene, except from vegetative emission sources	1.08E-06	1.26E-04	1.49E-03	1.90E-04	1.11E-04	6.02E-05	3.29E-05	1.28E-05	1.35E-07	1.35E-07	4.05E-07	1.29E-02	1.30E-02	1.30E-02	1.31E-02	1.31E-02	1.31E-02	1.32E-02	1.34E-02
methyl alcohol	9.60E-08	1.12E-05	1.32E-04	1.69E-05	9.85E-06	5.35E-06	2.93E-06	1.14E-06	1.20E-08	1.20E-08	3.60E-08	1.15E-03	1.15E-03	1.16E-03	1.16E-03	1.16E-03	1.17E-03	1.17E-03	1.19E-03
methyl ethyl ketone	8.00E-08	9.37E-06	1.10E-04	1.41E-05	8.21E-06	4.46E-06	2.44E-06	9.50E-07	1.00E-08	1.00E-08	3.00E-08	9.58E-04	9.61E-04	9.64E-04	9.67E-04	9.71E-04	9.74E-04	9.77E-04	9.93E-04
methyl ethyl ketone	1.60E-08	1.87E-06	2.21E-05	2.81E-06	1.64E-06	8.92E-07	4.88E-07	1.90E-07	2.00E-09	2.00E-09	6.00E-09	1.92E-04	1.92E-04	1.93E-04	1.93E-04	1.94E-04	1.95E-04	1.95E-04	1.99E-04
naphthalene	3.28E-06	3.75E-06	4.41E-05	5.63E-06	3.28E-06	1.78E-06	9.76E-07	3.80E-07	4.00E-09	4.00E-09	1.20E-08	3.83E-04	3.84E-04	3.86E-04	3.87E-04	3.88E-04	3.90E-04	3.91E-04	3.97E-04
propionaldehyde	2.40E-08	2.81E-06	3.31E-05	4.22E-06	2.46E-06	1.34E-06	7.32E-07	2.85E-07	3.00E-09	3.00E-09	9.00E-09	2.87E-04	2.88E-04	2.89E-04	2.90E-04	2.91E-04	2.92E-04	2.93E-04	2.98E-04
propylene	2.07E-06	2.43E-04	2.86E-03	3.64E-04	2.13E-04	1.16E-04	6.32E-05	2.46E-05	2.59E-07	2.59E-07	7.77E-07	2.48E-02	2.49E-02	2.50E-02	2.51E-02	2.51E-02	2.52E-02	2.53E-02	2.57E-02
styrene	8.00E-08	9.37E-06	1.10E-04	1.41E-05	8.21E-06	4.46E-06	2.44E-06	9.50E-07	1.00E-08	1.00E-08	3.00E-08	9.58E-04	9.61E-04	9.64E-04	9.67E-04	9.71E-04	9.74E-04	9.77E-04	9.93E-04
toluene	4.54E-06	5.02E-04	5.78E-03	9.51E-04	1.19E-04	1.16E-04	1.30E-04	4.87E-05	5.06E-06	4.82E-05	4.66E-02	4.68E-02	4.70E-02	4.71E-02	4.73E-02	4.74E-02	4.76E-02	4.84E-02	
xylene (total)	3.63E-06	4.08E-04	4.73E-03	7.26E-04	7.10E-04	2.84E-04	9.93E-05	8.52E-05	4.47E-07	3.02E-06	2.70E-05	3.90E-02	3.91E-02	3.92E-02	3.93E-02	3.95E-02	3.96E-02	3.98E-02	4.04E-02
aluminum	2.31E-04	7.55E-03	3.77E-02	9.63E-03	8.12E-03	2.59E-03	1.22E-03	8.08E-04	2.19E-04	2.09E-05	2.22E-04	1.64E-03	4.04E-03	6.44E-03	8.83E-03	1.12E-02	1.36E-02	1.60E-02	2.80E-02
ammonium ion	3.90E-07	1.35E-05	7.95E-05	1.90E-05	1.47E-05	4.92E-06	2.36E-06	1.46E-06	5.68E-07	3.73E-08	3.78E-07	4.46E-05	1.10E-04	1.76E-04	2.41E-04	3.08E-04	3.72E-04	4.37E-04	7.64E-04
antimony	4.62E-08	1.51E-06	7.52E-06	1.92E-06	1.62E-06	5.18E-07	2.44E-07	1.62E-07	4.39E-08	4.18E-09	4.45E-08	1.05E-06	2.57E-06	4.09E-06	5.62E-06	7.14E-06	8.67E-06	1.02E-05	1.78E-05
arsenic	5.90E-08	2.02E-06	1.15E-05	2.75E-06	2.19E-06	7.31E-07	3.52E-07	2.22E-07	5.57E-08	5.48E-09	5.71E-08	2.67E-07	6.51E-07	1.04E-06	1.42E-06	1.81E-06	2.19E-06	2.58E-06	4.50E-06
barium	6.13E-06	6.66E-04	1.14E-02	1.84E-03	8.57E-04	4.49E-04	2.50E-04	1.08E-04	3.83E-05	3.30E-06	7.13E-06	3.79E-04	9.12E-04	1.44E-03	1.98E-03	2.51E-03	3.04E-03	3.58E-03	6.24E-03
bromine	8.82E-08	3.54E-06	2.75E-05	5.83E-06	3.97E-06	1.48E-06	7.85E-07	4.33E-07	8.22E-08	8.65E-09	8.60E-08	6.99E-07	1.26E-06	1.82E-06	2.38E-06	2.93E-06	3.49E-06	4.05E-06	6.84E-06
cadmium	9.48E-08	3.10E-06	1.54E-05	3.95E-06	3.33E-06	1.06E-06	5.01E-07	3.32E-07	9.01E-08	8.58E-09	9.13E-08	4.61E-08	1.13E-07	1.81E-07	2.48E-07	3.15E-07	3.82E-07	4.50E-07	7.86E-07
chlorine	1.06E-05	4.16E-04	3.06E-03	6.82E-04	4.64E-04	1.70E-04	8.98E-05	5.03E-05	9.94E-06	1.05E-06	1.03E-05	6.12E-05	8.66E-05	1.23E-04	1.60E-04	1.97E-04	2.34E-04	2.71E-04	4.58E-04
chromium (VI)	3.61E-08	1.71E-06	1.77E-05	3.30E-06	2.00E-06	8.36E-07	4.39E-07	2.25E-07	3.21E-08	4.10E-09	3.61E-08	4.26E-07	1.00E-06	1.58E-06	2.16E-06	2.74E-06	3.31E-06	3.89E-06	6.78E-06
cobalt	3.28E-07	1.10E-05	5.81E-05	1.45E-05	1.19E-05	3.87E-06	1.84E-06	1.22E-06	3.12E-07	2.97E-08	3.16E-07	5.80E-07	9.81E-07	1.38E-06	1.78E-06	2.18E-06	2.58E-06	2.99E-06	4.99E-06
copper	1.19E-06	1.37E-04	2.42E-03	3.86E-04	1.78E-04	9.42E-05	5.25E-05	2.26E-05	6.68E-07	2.65E-07	1.37E-06	7.98E-05	1.91E-04	3.03E-04	4.15E-04	5.26E-04	6.38E-04	7.49E-04	1.31E-03
lead	1.71E-06	5.68E-05	2.97E-04	7.43E-05	6.12E-05	1.98E-05	9.39E-06	6.13E-06	1.62E-06	1.57E-07	1.65E-06	2.47E-06	6.04E-06	9.61E-06	1.32E-05	1.68E-05	2.03E-05	2.39E-05	4.18E-05
manganese	2.92E-06	1.10E-04	8.10E-04	1.73E-04	1.23E-04	4.49E-05	2.24E-05	1.30E-05	2.71E-06	2.88E-07	2.80E-06	2.40E-05	5.79E-05	9.18E-05	1.26E-04	1.60E-04	1.94E-04	2.27E-04	3.97E-04
mercury	4.88E-08	1.59E-06	7.91E-06	2.03E-06	1.71E-06	5.45E-07	2.57E-07	1.70E-07	4.62E-08	4.40E-09	4.68E-08	1.38E-07	3.40E-07	5.42E-07	7.44E-07	9.45E-07	1.15E-06	1.35E-06	2.36E-06
nickel	2.32E-07	1.36E-05	1.72E-04	3.01E-05	1.64E-05	7.49E-06	4.05E-06	1.94E-06	1.96E-07	3.04E-08	2.39E-07	4.88E-06	1.13E-05	1.77E-05	2.42E-05	3.06E-05	3.70E-05	4.34E-05	7.56E-05
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
phosphorus	4.83E-06	1.61E-04	8.55E-04	2.14E-04	1.74E-04	5.65E-05	2.67E-05	1.74E-05	4.58E-06	4.48E-07	4.67E-06	4.37E-05	1.07E-04	1.71E-04	2.34E-04	2.96E-04	3.62E-04	4.25E-04	7.43E-04
selenium	9.09E-09	5.16E-07	6.39E-06	1.16E-06	6.20E-07	2.78E-07	1.47E-07	7.17E-08	7.73E-09	1.26E-09	9.42E-09	1.93E-07	4.65E-07	7.38E-07	1.01E-06	1.28E-06	1.55E-06	1.83E-06	3.19E-06
silicon	5.98E-04	2.01E-02	1.10E-01	2.69E-02	2.18E-02	7.18E-03	3.43E-03	2.20E-03	5.68E-04	5.60E-05	5.77E-04	5.12E-03	1.26E-02	2.00E-02	2.75E-02	3.48E-02	4.23E-02	4.98E-02	8.70E-02
silver	2.43E-08	7.95E-07	3.96E-06	1.01E-06	8.54E-07	2.72E-07	1.28E-07	8.50E-08	2.31E-08	2.20E-09	2.34E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
sulfates	1.67E-05	1.09E-03	1.35E-02	2.45E-03	1.30E-03	5.96E-04	3.54E-04	1.62E-04	1.46E-05	1.99E-06	1.69E-05	4.71E-04	7.46E-04	1.02E-03	1.29E-03	1.57E-03	1.84E-03	2.12E-03	3.49E-03
thallium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.15E-08	1.51E-07	2.41E-07	3.31E-07	4.20E-07	5.10E-07	6.00E-07	1.05E-06
vanadium	8.51E-07	3.35E-05	2.65E-04	5.46E-05	3.77E-05	1.41E-05	7.13E-06	4.09E-06	7.84E-07	8.60E-08	8.34E-07	5.49E-06	1.33E-05	2.16E-05	2.88E-05	3.65E-05	4.43E-05	5.21E-05	9.09E-05
zinc	1.74E-06	7.22E-05	6.26E-04	1.34E-04	8.19E-05	3.12E-05	1.55E-05	8.89E-06	1.59E-06	2.05E-07	1.74E-06	2.49E-05	6.03E-05	9.56E-05	1.31E-04	1.66E-04	2.02E-04	2.37E-04	4.14E-04
Diesel PM	1.29E-03	4.91E-02	5.84E-01	1.68E-01	4.93E-02	1.82E-02	6.06E-03	2.69E-03	2.72E-04	5.00E-05	2.70E-04	4.53E-05	7.08E-05	9.63E-05	1.22E-04	1.47E-04	1.73E-04	1.98E-04	3.26E-04

[1] Commercial Maximum Grid No. 852
NA = Not Available ug/m^3 = micrograms per cubic meter
NC = Not Calculated mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-1.3
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2017 Unmitigated Construction Through 2035 Operations - Lifetime Exposure
Worker Scenario
(Based on Peak Location of Commercial Cancer Risks[1])

Exposure Parameters	Ages 16<30	Ages 16<70
Worker 8-hr Daily Breathing Rate (D	240 L/kg-d	230 L/kg-d
Fraction of Year (EF)	0.68 unitless	0.68 unitless
Absorption Fraction (A)	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L
Age-adjustment (ASF)	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.01429 unitless	0.01429 unitless
Worker Adjustment Factor (WAH)	1 unitless	1 unitless

	Concentration at Location w/Maximum Risk (ug/m^3)																			
	Construction											Operation								
TAC	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
1,2,4-trimethylbenzene	4.10E-07	3.47E-05	1.42E-04	2.54E-04	3.82E-04	2.40E-04	9.92E-05	3.28E-06	0.00E+00	0.00E+00	8.20E-08	2.64E-03	2.65E-03	2.66E-03	2.67E-03	2.68E-03	2.69E-03	2.70E-03	2.75E-03
1,3-butadiene	2.30E-07	1.95E-05	7.96E-05	1.42E-04	2.30E-04	1.35E-04	5.57E-05	1.84E-06	0.00E+00	0.00E+00	4.60E-08	1.48E-03	1.49E-03	1.50E-03	1.50E-03	1.51E-03	1.51E-03	1.52E-03	1.54E-03
2,2,4-trimethylpentane	9.93E-07	8.23E-05	3.37E-04	6.03E-04	9.33E-04	5.71E-04	2.36E-04	7.80E-06	0.00E+00	0.00E+00	1.95E-07	6.23E-02	6.31E-02	6.33E-02	6.35E-02	6.37E-02	6.40E-02	6.42E-02	6.44E-02
acetaldehyde	1.20E-07	1.02E-05	4.16E-05	7.42E-05	1.15E-04	7.02E-05	2.90E-05	9.60E-07	0.00E+00	0.00E+00	2.40E-08	7.74E-03	7.76E-03	7.78E-03	7.82E-03	7.84E-03	7.87E-03	7.90E-03	7.93E-03
acrolein	5.50E-08	4.65E-06	1.90E-05	3.40E-05	5.26E-05	3.22E-05	1.33E-05	4.40E-07	0.00E+00	0.00E+00	1.10E-08	3.55E-03	3.56E-03	3.57E-03	3.58E-03	3.60E-03	3.61E-03	3.62E-03	3.63E-03
benzene	3.32E-06	2.24E-04	4.33E-04	6.81E-04	1.77E-03	6.88E-04	2.53E-05	3.96E-06	0.00E+00	0.00E+00	2.09E-07	6.74E-02	6.76E-02	6.81E-02	6.83E-02	6.85E-02	6.88E-02	6.90E-02	6.93E-02
cumene	5.00E-09	4.23E-07	1.73E-06	3.09E-06	4.76E-06	2.93E-06	1.21E-06	4.00E-08	0.00E+00	0.00E+00	1.00E-09	3.22E-04	3.23E-04	3.25E-04	3.26E-04	3.27E-04	3.28E-04	3.29E-04	3.30E-04
cyclohexane	2.62E-07	2.22E-05	9.05E-05	1.61E-04	2.46E-04	1.52E-04	6.28E-05	2.08E-06	0.00E+00	0.00E+00	5.20E-08	1.68E-02	1.68E-02	1.69E-02	1.70E-02	1.71E-02	1.71E-02	1.72E-02	1.73E-02
ethylbenzene	6.77E-07	4.58E-05	2.12E-04	3.29E-04	4.93E-04	8.71E-04	1.08E-05	1.31E-05	0.00E+00	9.28E-07	6.87E-06	2.87E-02	2.88E-02	2.90E-02	2.91E-02	2.92E-02	2.93E-02	2.94E-02	2.99E-02
ethylene	2.70E-06	2.28E-04	9.32E-04	1.67E-03	2.56E-03	1.59E-03	6.52E-05	2.16E-05	0.00E+00	0.00E+00	5.39E-07	1.74E-01	1.74E-01	1.75E-01	1.76E-01	1.76E-01	1.77E-01	1.77E-01	1.78E-01
formaldehyde	6.73E-07	5.67E-05	2.32E-04	4.16E-04	6.41E-04	3.92E-04	1.62E-04	5.36E-06	0.00E+00	0.00E+00	1.34E-07	4.32E-02	4.35E-02	4.36E-02	4.38E-02	4.40E-02	4.41E-02	4.43E-02	4.44E-02
hexane, n- isoprene, except from vegetative emission sources	6.79E-07	5.71E-05	2.34E-04	4.18E-04	6.46E-04	3.95E-04	1.63E-05	5.40E-06	0.00E+00	0.00E+00	1.35E-07	4.37E-02	4.38E-02	4.40E-02	4.41E-02	4.43E-02	4.44E-02	4.46E-02	4.47E-02
methyl alcohol	6.00E-08	5.08E-06	2.08E-05	3.71E-05	5.74E-05	3.51E-05	1.46E-06	4.80E-07	0.00E+00	0.00E+00	1.20E-08	3.87E-03	3.88E-03	3.90E-03	3.91E-03	3.92E-03	3.94E-03	3.95E-03	3.96E-03
methyl ethyl ketone	5.00E-08	4.23E-06	1.73E-05	3.09E-05	4.78E-05	2.93E-05	1.21E-06	4.00E-07	0.00E+00	0.00E+00	1.00E-08	3.22E-03	3.23E-03	3.25E-03	3.26E-03	3.27E-03	3.28E-03	3.29E-03	3.30E-03
methyl ethyl ketone	1.00E-08	8.46E-07	3.46E-06	6.19E-06	9.57E-06	5.85E-06	2.42E-07	8.00E-08	0.00E+00	0.00E+00	2.00E-09	6.45E-04	6.47E-04	6.51E-04	6.54E-04	6.56E-04	6.58E-04	6.60E-04	6.63E-04
naphthalene	2.05E-06	1.69E-06	6.92E-06	1.24E-05	1.91E-05	1.17E-05	4.84E-07	1.60E-07	0.00E+00	0.00E+00	4.00E-09	1.29E-04	1.30E-04	1.30E-04	1.31E-04	1.31E-04	1.32E-04	1.32E-04	1.33E-04
propionaldehyde	1.50E-08	1.27E-06	5.19E-06	9.28E-06	1.44E-05	8.78E-06	3.63E-07	1.20E-07	0.00E+00	0.00E+00	3.00E-09	9.67E-04	9.70E-04	9.77E-04	9.81E-04	9.84E-04	9.87E-04	9.91E-04	9.94E-04
propylene	1.30E-06	1.10E-04	4.48E-04	8.01E-04	1.24E-03	7.58E-04	3.13E-05	1.04E-05	0.00E+00	0.00E+00	2.59E-07	8.35E-02	8.38E-02	8.41E-02	8.44E-02	8.47E-02	8.49E-02	8.52E-02	8.63E-02
styrene	5.00E-08	4.23E-06	1.73E-05	3.09E-05	4.78E-05	2.93E-05	1.21E-06	4.00E-07	0.00E+00	0.00E+00	1.00E-08	3.22E-03	3.23E-03	3.25E-03	3.26E-03	3.27E-03	3.28E-03	3.29E-03	3.30E-03
toluene	3.08E-06	2.29E-04	1.00E-03	1.86E-03	2.52E-03	3.12E-03	5.88E-05	4.59E-05	0.00E+00	0.00E+00	2.58E-06	2.44E-05	1.57E-01	1.58E-01	1.59E-01	1.59E-01	1.60E-01	1.60E-01	1.61E-01
xylene (total)	2.47E-06	1.85E-04	7.97E-04	1.36E-03	2.06E-03	2.17E-03	4.58E-05	3.19E-05	0.00E+00	0.00E+00	1.49E-06	3.14E-05	1.32E-01	1.32E-01	1.33E-01	1.34E-01	1.34E-01	1.35E-01	1.36E-01
aluminum	1.46E-04	2.32E-03	7.62E-03	1.51E-02	2.07E-02	2.76E-02	6.49E-04	2.76E-04	1.16E-04	1.14E-05	1.18E-04	8.55E-04	2.22E-03	3.58E-03	4.94E-03	6.30E-03	7.66E-03	9.03E-03	1.04E-02
ammonium ion	2.46E-07	4.26E-06	1.60E-05	2.97E-05	4.05E-05	1.04E-05	1.09E-06	5.21E-07	1.95E-07	2.03E-08	2.00E-07	2.33E-05	6.05E-05	9.76E-05	1.35E-04	1.72E-04	2.09E-04	2.46E-04	2.83E-04
antimony	2.93E-08	4.65E-07	1.52E-06	3.03E-06	4.13E-06	5.96E-06	1.10E-07	5.51E-08	2.32E-08	2.28E-09	2.36E-08	5.44E-07	1.41E-06	2.28E-06	3.14E-06	4.01E-06	4.87E-06	5.74E-06	6.61E-06
arsenic	3.74E-08	8.39E-07	2.16E-06	4.25E-06	5.99E-06	7.94E-06	1.62E-07	7.79E-08	2.95E-08	2.98E-09	3.03E-08	1.39E-07	3.57E-07	5.76E-07	7.95E-07	1.01E-06	1.23E-06	1.45E-06	1.67E-06
barium	3.89E-06	2.85E-04	1.40E-03	2.48E-03	4.36E-03	2.73E-03	1.36E-04	4.80E-05	2.03E-05	1.85E-06	3.78E-06	2.11E-04	5.09E-04	8.03E-04	1.11E-03	1.41E-03	1.71E-03	2.01E-03	2.32E-03
bromine	5.57E-08	1.20E-06	4.56E-06	8.48E-06	1.20E-05	1.34E-05	3.76E-07	1.63E-07	4.37E-08	4.75E-09	4.57E-08	3.63E-07	6.99E-07	1.03E-06	1.36E-06	1.70E-06	2.03E-06	2.36E-06	2.70E-06
cadmium	6.01E-08	9.54E-07	3.13E-06	6.21E-06	8.46E-06	1.14E-05	2.26E-07	1.13E-07	4.78E-08	4.68E-09	4.84E-08	2.40E-08	6.22E-08	1.00E-07	1.39E-07	1.77E-07	2.15E-07	2.52E-07	2.92E-07
chlorine	6.68E-06	1.40E-04	5.22E-04	9.75E-04	1.46E-03	4.29E-05	1.86E-05	9.29E-06	6.03E-07	6.50E-06	3.17E-05	4.86E-05	6.54E-05	8.23E-05	9.91E-05	1.16E-04	1.33E-04	1.50E-04	1.67E-04
chromium (VI)	2.26E-08	5.16E-07	1.80E-06	3.58E-06	4.87E-06	6.71E-06	1.30E-07	6.47E-08	2.73E-08	2.69E-09	2.78E-08	5.51E-07	8.60E-07	1.17E-06	1.48E-06	1.78E-06	2.08E-06	2.39E-06	2.69E-06
cobalt	2.05E-07	3.44E-06	1.14E-05	2.25E-05	3.13E-05	4.05E-05	8.54E-07	4.17E-07	1.65E-07	1.62E-08	1.67E-07	3.01E-07	5.45E-07	7.89E-07	1.03E-06	1.28E-06	1.52E-06	1.76E-06	2.01E-06
copper	7.47E-07	5.94E-05	3.08E-04	5.21E-04	9.23E-04	6.36E-04	2.84E-05	1.01E-05	4.03E-07	1.43E-07	7.59E-07	4.15E-05	1.05E-04	1.66E-04	2.32E-04	2.85E-04	3.39E-04	4.22E-04	4.88E-04
lead	1.08E-06	1.78E-05	5.86E-05	1.16E-04	1.60E-04	2.10E-04	4.25E-06	2.11E-06	8.58E-07	8.62E-08	8.75E-07	1.29E-06	3.31E-06	5.34E-06	7.37E-06	9.40E-06	1.14E-05	1.35E-05	1.79E-05
manganese	1.84E-06	3.66E-05	1.37E-04	2.58E-04	3.84E-04	4.26E-04	1.07E-05	4.78E-06	1.44E-06	1.56E-07	1.51E-06	1.25E-05	3.18E-05	5.11E-05	7.04E-05	8.96E-05	1.09E-04	1.28E-04	1.48E-04
mercury	3.08E-08	4.89E-07	1.80E-06	3.56E-06	4.95E-06	5.86E-06	1.15E-07	5.80E-08	2.44E-08	2.40E-09	2.48E-08	7.20E-08	1.87E-07	3.01E-07	4.16E-07	5.31E-07	6.45E-07	7.60E-07	8.76E-07
nickel	1.44E-07	8.23E-06	2.39E-05	4.20E-05	7.01E-05	5.76E-05	2.09E-06	8.03E-07	1.06E-07	1.62E-08	1

Table 1-2.1A
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2017 Mitigated Construction Through 2035 Operations - Lifetime Exposure
30-Year Adult Resident Scenario
(Based on Peak Location of Residential Cancer Risks[1])

Equations:
Risk = Car*DBR*EF*CF*A*ASF*ED*FAH*CPF
HQ = Car / REL
Where: HQ = Hazard Quotient; Car = Exposure Concentration; DBR = Daily Breathing Rate; ASF = Age sensitivity factor; EF = Fraction of Year; ED = Fraction of Averaging time; A = Absorption Fraction; FAH = Fraction of Time at Home; CF = Conversion Factor; CPF = Cancer Potency Factor

	Toxicity Criteria		Cancer Risk to Adult 30-Year Resident																			TOTAL Cancer Risk to Resident for Max Location
	EPA Inhalation CPF	CalEPA Inhalation CPF	Construction							Construction and Operations					Operation							
TAC	(mg/kg-day)$^{-1}$	(mg/kg-day)$^{-1}$	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035 - 2046	
1,2,4-trimethylbenzene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	1.05E-01	6.00E-01	1.78E-11	1.93E-09	9.00E-10	9.33E-10	1.39E-09	7.79E-10	1.01E-10	1.30E-07	1.30E-07	1.30E-07	1.30E-07	1.31E-07	1.31E-07	1.31E-07	1.44E-08	1.44E-08	1.45E-08	1.74E-07	1.27E-06
2,2,4-trimethylpentane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	7.70E-03	1.00E-02	1.55E-13	1.68E-11	7.83E-12	8.11E-12	1.21E-11	6.77E-12	8.74E-13	1.13E-09	1.13E-09	1.13E-09	1.13E-09	1.14E-09	1.14E-09	1.14E-09	1.25E-10	1.25E-10	1.26E-10	1.51E-09	1.10E-08
acrolein	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
benzene	2.73E-02	1.00E-01	4.94E-11	3.41E-09	9.42E-10	8.37E-10	1.28E-09	6.92E-10	7.61E-11	9.81E-08	9.83E-08	9.85E-08	9.87E-08	9.89E-08	9.91E-08	9.93E-08	9.95E-08	1.09E-08	1.09E-08	1.09E-08	1.32E-07	9.62E-07
cumene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cyclohexane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	8.70E-03	8.70E-03	8.27E-13	6.51E-11	3.58E-11	3.68E-11	1.01E-10	5.34E-11	2.82E-12	3.64E-09	3.64E-09	3.65E-09	3.66E-09	3.68E-09	3.67E-09	3.68E-09	3.68E-09	4.04E-10	4.05E-10	4.09E-10	4.86E-09	3.57E-08
ethylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	4.55E-02	2.10E-02	1.82E-12	1.97E-10	9.18E-11	9.51E-11	1.41E-10	7.94E-11	1.03E-11	1.32E-08	1.32E-08	1.33E-08	1.33E-08	1.33E-08	1.33E-08	1.34E-08	1.47E-09	1.47E-09	1.47E-09	1.77E-08	1.29E-07
hexane, n-	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
isoprene, except from vegetative emission sources	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
naphthalene	1.19E-01	1.20E-01	3.10E-13	3.36E-11	1.57E-11	1.62E-11	2.41E-11	1.35E-11	1.79E-12	2.25E-09	2.26E-09	2.26E-09	2.27E-09	2.27E-09	2.28E-09	2.28E-09	2.50E-10	2.51E-10	2.51E-10	3.02E-09	2.20E-08
propionaldehyde	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
propylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
styrene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
toluene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
xylene (total)	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
aluminum	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ammonium ion	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
antimony	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
arsenic	3.30E+00	1.40E-01	6.06E-11	1.26E-09	5.00E-10	6.39E-10	8.80E-10	7.00E-10	6.04E-11	6.66E-11	1.38E-10	2.23E-10	3.26E-10	4.10E-10	5.31E-10	5.04E-10	5.98E-10	6.82E-10	8.60E-11	9.63E-11	1.07E-10	1.40E-09	8.77E-09
barium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
bromine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cadmium	6.30E+00	1.50E-01	1.22E-10	2.39E-09	9.08E-10	1.17E-09	1.59E-09	1.13E-09	1.04E-10	6.66E-11	4.82E-11	5.03E-11	8.95E-11	8.94E-11	1.10E-10	1.31E-10	1.51E-10	1.88E-11	2.10E-11	2.33E-11	3.06E-10	8.70E-09
chlorine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
chromium (VI)	4.20E+01	5.10E+02	1.54E-09	5.46E-08	2.58E-08	2.67E-08	4.32E-08	2.97E-08	3.55E-09	3.99E-09	8.58E-09	1.44E-08	2.07E-08	2.65E-08	3.28E-08	3.86E-08	4.47E-08	5.95E-09	6.21E-09	6.88E-09	9.05E-08	4.86E-07
cobalt	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
copper	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
lead	NA	4.20E-02	6.16E-12	1.24E-10	4.76E-11	6.10E-11	8.33E-11	6.76E-11	5.53E-12	4.16E-12	5.17E-12	7.30E-12	1.13E-11	1.33E-11	1.64E-11	1.94E-11	2.25E-11	2.76E-12	3.13E-12	3.46E-12	4.55E-11	5.48E-10
manganese	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
mercury	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
nickel	8.40E-01	9.10E-01	1.74E-11	8.35E-10	4.21E-10	4.48E-10	6.91E-10	4.53E-10	6.00E-11	7.46E-11	1.77E-10	2.89E-10	4.13E-10	5.31E-10	6.52E-10	7.74E-10	8.98E-10	1.11E-10	1.24E-10	1.38E-10	1.81E-09	9.91E-09
non-phosphate phosphorous	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
phosphorus	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
selenium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silicon	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silver	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
sulfates	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
thallium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
vanadium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
zinc	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Diesel PM	1.05E+00	1.10E+00	1.60E-08	5.17E-07	3.50E-07	3.80E-07	4.25E-07	2.92E-07	2.78E-08	1.17E-08	2.41E-09	1.59E-09	3.39E-09	2.19E-09	2.67E-09	3.16E-09	3.65E-09	4.52E-10	5.06E-10	5.59E-10	7.35E-09	2.05E-06
TOTAL			**1.78E-08**	**5.82E-07**	**3.80E-07**	**4.13E-07**	**4.74E-07**	**3.24E-07**	**3.16E-08**	**2.64E-07**	**2.60E-07**	**2.65E-07**	**2.74E-07**	**2.80E-07**	**2.87E-07**	**2.94E-07**	**3.01E-07**	**3.38E-08**	**3.46E-08**	**3.54E-08**	**4.34E-07**	**4.99E-06**

NA = Not Available; ug/m^3 = micrograms per cubic meter
NC = Not Calculated; mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

CDM Smith

Construction
1-2 Mitigated

Table 1-2.1B
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2017 Mitigated Construction Through 2035 Operations - Lifetime Exposure
70-Year Adult Resident Scenario
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	3rd Trimester	Ages 0<2	Ages 2<9	Ages 2<16	Ages 16<30	Ages 16<70
Daily Breathing Rate (DBR)	361 L/kg-d	1090 L/kg-d	861 L/kg-d	745 L/kg-d	335 L/kg-d	290 L/kg-d
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L
Age-adjustment (ASF)	10 unitless	10 unitless	3 unitless	3 unitless	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.00357 unitless	0.01429 unitless	0.01429 unitless	0.01429 unitless	0.2 unitless	0.771 unitless
Fraction of Time at Home (FAH)	1.00 unitless	1.00 unitless	1.00 unitless	1 unitless	0.73 unitless	0.73 unitless

	Start Age	End Age
Child Resident	0	9 Year
School Child	7	18 Year
30-year Resident	0	30 Year
70-year Resident	0	70 Year

	Concentration at Location w/Maximum Risk (ug/m^3)																					
	Construction										Operation											
TAC	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
1,2,4-trimethylbenzene	3.28E-07	3.85E-05	8.73E-05	9.05E-05	1.35E-04	7.56E-05	9.78E-06	3.85E-06	0.00E+00	0.00E+00	8.20E-08	1.28E-02	1.28E-02	1.28E-02	1.27E-02	1.27E-02	1.27E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02
1,3-butadiene	1.84E-07	2.16E-05	4.90E-05	5.08E-05	7.59E-05	4.24E-05	5.47E-06	2.16E-06	0.00E+00	0.00E+00	4.60E-08	7.09E-03	7.07E-03	7.08E-03	7.09E-03	7.11E-03	7.12E-03	7.14E-03	7.15E-03	7.16E-03	7.18E-03	7.19E-03	7.21E-03
2,2,4-trimethylpentane	7.80E-07	9.16E-05	2.08E-04	2.15E-04	3.20E-04	1.80E-04	2.32E-05	9.17E-06	0.00E+00	0.00E+00	1.95E-07	2.98E-02	3.00E-02	3.00E-02	3.01E-02	3.02E-02	3.03E-02	3.04E-02	3.04E-02	3.05E-02	3.06E-02	3.06E-02	3.07E-02
acetaldehyde	9.80E-08	1.13E-05	2.56E-05	2.65E-05	3.94E-05	2.21E-05	2.86E-06	1.13E-06	0.00E+00	0.00E+00	2.40E-08	3.86E-03	3.69E-03	3.69E-03	3.70E-03	3.71E-03	3.72E-03	3.73E-03	3.74E-03	3.74E-03	3.75E-03	3.76E-03	3.76E-03
acrolein	4.40E-08	5.16E-06	1.17E-05	1.21E-05	1.81E-05	1.01E-05	1.31E-06	5.17E-07	0.00E+00	0.00E+00	1.10E-08	1.66E-03	1.70E-03	1.70E-03	1.71E-03	1.71E-03	1.72E-03	1.72E-03	1.72E-03	1.73E-03	1.73E-03	1.74E-03	1.74E-03
benzene	3.06E-08	2.28E-04	3.08E-04	2.73E-04	4.18E-04	2.26E-04	2.49E-05	9.82E-06	0.00E+00	0.00E+00	2.09E-07	3.20E-02	3.21E-02	3.22E-02	3.22E-02	3.23E-02	3.24E-02	3.24E-02	3.25E-02	3.26E-02	3.27E-02	3.27E-02	3.28E-02
cumene	4.00E-08	4.69E-07	1.07E-06	1.10E-06	1.64E-06	9.22E-07	1.19E-07	4.70E-08	0.00E+00	0.00E+00	1.00E-09	1.53E-04	1.54E-04	1.54E-04	1.54E-04	1.55E-04	1.55E-04	1.56E-04	1.56E-04	1.56E-04	1.56E-04	1.57E-04	1.57E-04
cyclohexane	2.08E-07	2.44E-05	5.54E-05	5.74E-05	8.53E-05	4.79E-05	6.19E-06	2.44E-06	0.00E+00	0.00E+00	5.20E-08	7.97E-03	7.99E-03	8.00E-03	8.02E-03	8.04E-03	8.05E-03	8.07E-03	8.08E-03	8.10E-03	8.11E-03	8.13E-03	8.15E-03
ethylbenzene	5.86E-07	5.01E-05	1.34E-04	1.40E-04	3.78E-04	2.00E-04	1.06E-05	1.44E-05	0.00E+00	0.00E+00	6.96E-07	7.98E-06	1.36E-02	1.37E-02	1.37E-02	1.37E-02	1.38E-02	1.38E-02	1.38E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02
ethylene	2.16E-08	2.53E-06	5.74E-06	5.95E-06	8.84E-06	4.97E-06	6.41E-07	2.53E-07	0.00E+00	0.00E+00	5.38E-09	8.26E-04	8.28E-04	8.32E-04	8.33E-04	8.35E-04	8.36E-04	8.38E-04	8.39E-04	8.41E-04	8.42E-04	8.43E-04	8.44E-04
formaldehyde	5.36E-07	6.28E-05	1.43E-04	1.48E-04	2.20E-04	1.24E-04	1.59E-05	6.30E-06	0.00E+00	0.00E+00	1.34E-07	2.05E-02	2.06E-02	2.07E-02	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02	2.09E-02	2.09E-02	2.10E-02
hexane, n-	5.40E-07	6.33E-05	1.44E-04	1.49E-04	2.22E-04	1.24E-04	1.61E-05	6.35E-06	0.00E+00	0.00E+00	1.35E-07	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02	2.10E-02	2.10E-02	2.11E-02	2.11E-02	2.11E-02	2.11E-02
isoprene, except from vegetative emission sources	4.80E-08	5.63E-06	1.28E-05	1.32E-05	1.97E-05	1.11E-05	1.43E-06	5.64E-07	0.00E+00	0.00E+00	1.20E-08	1.84E-03	1.84E-03	1.85E-03	1.85E-03	1.85E-03	1.86E-03	1.86E-03	1.87E-03	1.87E-03	1.87E-03	1.88E-03	1.88E-03
methyl alcohol	4.00E-08	4.69E-06	1.07E-05	1.10E-05	1.64E-05	9.22E-06	1.19E-06	4.70E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.57E-03
methyl ethyl ketone	8.00E-08	9.38E-07	2.13E-06	2.21E-06	3.28E-06	1.84E-06	2.38E-07	9.40E-08	0.00E+00	0.00E+00	2.00E-09	3.07E-04	3.08E-04	3.08E-04	3.09E-04	3.10E-04	3.11E-04	3.12E-04	3.12E-04	3.13E-04	3.14E-04	3.14E-04	3.15E-04
naphthalene	1.60E-08	1.88E-06	4.26E-06	4.42E-06	6.56E-06	3.69E-06	4.76E-07	1.88E-07	0.00E+00	0.00E+00	4.00E-09	6.13E-04	6.14E-04	6.16E-04	6.17E-04	6.18E-04	6.19E-04	6.21E-04	6.22E-04	6.23E-04	6.24E-04	6.25E-04	6.27E-04
propionaldehyde	1.20E-08	1.41E-06	3.20E-06	3.31E-06	4.92E-06	2.77E-06	3.57E-07	1.41E-07	0.00E+00	0.00E+00	3.00E-09	4.60E-04	4.61E-04	4.62E-04	4.63E-04	4.64E-04	4.65E-04	4.67E-04	4.68E-04	4.69E-04	4.70E-04	4.70E-04	4.71E-04
propylene	1.04E-08	1.21E-06	2.76E-06	2.86E-06	4.25E-06	2.39E-06	3.08E-07	1.22E-07	0.00E+00	0.00E+00	2.59E-09	3.97E-04	3.98E-04	4.00E-04	4.00E-04	4.01E-04	4.02E-04	4.03E-04	4.04E-04	4.05E-04	4.06E-04	4.06E-04	4.07E-04
styrene	4.00E-08	4.69E-06	1.07E-05	1.10E-05	1.64E-05	9.22E-06	1.19E-06	4.70E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.57E-03
toluene	2.59E-06	2.52E-04	6.28E-04	6.67E-04	1.44E-03	7.78E-04	5.60E-05	5.13E-05	0.00E+00	0.00E+00	1.94E-06	2.24E-05	7.47E-02	7.49E-02	7.51E-02	7.53E-02	7.54E-02	7.55E-02	7.57E-02	7.58E-02	7.60E-02	7.61E-02	7.62E-02
xylene (total)	2.00E-06	2.04E-04	4.97E-04	5.24E-04	1.04E-03	5.65E-04	4.84E-05	3.95E-05	0.00E+00	0.00E+00	1.52E-06	1.31E-05	6.24E-02	6.25E-02	6.26E-02	6.28E-02	6.29E-02	6.30E-02	6.31E-02	6.32E-02	6.33E-02	6.34E-02	6.36E-02
aluminum	1.22E-04	2.80E-03	4.82E-03	6.22E-03	8.46E-03	6.93E-03	5.54E-04	3.19E-04	1.09E-04	1.04E-05	1.09E-03	8.65E-04	2.16E-02	3.75E-02	5.34E-02	6.96E-02	8.53E-02	1.01E-02	1.17E-02	1.33E-02	1.49E-02	1.65E-02	1.81E-02
ammonium ion	2.07E-07	4.79E-06	9.34E-06	1.17E-05	1.61E-05	1.28E-05	1.10E-06	6.04E-07	1.80E-07	1.77E-08	1.85E-07	1.53E-05	5.88E-05	1.02E-04	1.46E-04	1.89E-04	2.33E-04	2.76E-04	3.20E-04	3.63E-04	4.07E-04	4.50E-04	4.94E-04
antimony	2.46E-08	5.16E-07	9.63E-07	1.24E-06	1.66E-06	1.39E-06	1.13E-07	6.26E-08	2.17E-08	2.09E-09	3.38E-07	1.37E-06	2.19E-06	3.14E-06	4.41E-06	5.42E-06	6.44E-06	7.45E-06	8.47E-06	9.48E-06	1.05E-05	1.15E-05	1.25E-05
arsenic	3.13E-08	7.14E-07	1.38E-06	1.73E-06	2.39E-06	1.91E-06	1.64E-07	9.01E-08	2.75E-08	2.74E-09	2.80E-08	9.12E-08	3.47E-07	6.03E-07	8.59E-07	1.12E-06	1.37E-06	1.63E-06	1.88E-06	2.14E-06	2.40E-06	2.65E-06	2.91E-06
barium	2.86E-06	3.42E-04	9.23E-04	9.31E-04	1.50E-03	9.07E-04	1.39E-04	6.15E-05	1.63E-06	6.49E-07	3.27E-06	1.30E-04	4.85E-04	8.39E-04	1.19E-03	1.55E-03	1.90E-03	2.26E-03	2.61E-03	2.97E-03	3.32E-03	3.68E-03	4.03E-03
bromine	4.66E-08	1.38E-06	2.61E-06	3.36E-06	4.90E-06	3.80E-06	2.97E-07	1.72E-07	4.25E-08	4.20E-09	4.41E-07	2.64E-07	3.34E-06	5.76E-06	8.22E-06	1.04E-05	1.30E-05	1.56E-05	1.81E-05	2.07E-05	2.32E-05	2.58E-05	2.83E-05
cadmium	5.03E-08	1.07E-06	1.98E-06	2.55E-06	3.47E-06	2.85E-06	2.27E-07	1.29E-07	4.45E-08	4.29E-09	4.49E-08	1.58E-08	8.05E-08	1.05E-07	1.50E-07	1.95E-07	2.39E-07	2.84E-07	3.29E-07	3.74E-07	4.18E-07	4.63E-07	5.08E-07
chlorine	5.61E-08	1.61E-06	3.35E-06	3.88E-06	5.62E-06	4.41E-06	4.28E-07	2.18E-07	4.82E-08	7.53E-09	1.02E-06	1.49E-07	1.83E-06	3.21E-06	4.59E-06	5.97E-06	7.35E-06	8.73E-06	1.01E-05	1.15E-05	1.29E-05	1.43E-05	1.57E-05
chromium (VI)	1.87E-08	7.16E-07	1.66E-06	1.84E-06	2.77E-06	1.90E-06	2.27E-07	1.09E-07	1.95E-08	2.04E-09	1.75E-08	1.46E-07	5.34E-07	9.22E-07	1.31E-06	1.70E-06	2.09E-06	2.47E-06	2.86E-06	3.25E-06	3.64E-06	4.03E-06	4.41E-06
cobalt	1.74E-07	3.86E-06	7.27E-06	9.20E-06	1.27E-05	1.02E-05	8.57E-07	4.77E-07	1.64E-07	1.58E-08	1.66E-07	5.84E-08	2.98E-07	3.88E-07	5.54E-07	7.20E-07	8.85E-07	1.05E-06	1.21E-06	1.38E-06	1.54E-06	1.71E-06	1.87E-06
copper	5.27E-07	7.12E-05	1.94E-04	1.95E-04	3.14E-04	1.88E-04	2.92E-05	1.29E-05	3.42E-07	1.36E-07	6.86E-07	2.54E-06	3.25E-04	3.99E-04	4.73E-04	5.48E-04	6.22E-04	6.97E-04	7.71E-04	8.46E-04	9.21E-04	9.95E-04	1.07E-03
lead	9.07E-07	1.97E-05	3.70E-05	4.74E-05	6.48E-05	5.26E-05	4.30E-06	2.42E-06	8.00E-07	7.76E-08	8.10E-07	8.46E-07	3.22E-06	5.60E-06	7.97E-06	1.03E-05	1.27E-05	1.51E-05	1.75E-05	1.99E-05	2.22E-05	2.46E-05	2.70E-05
manganese	1.54E-06	4.16E-05	8.64E-05	1.01E-04	1.40E-04	1.07E-04	9.32E-06	5.35E-06	1.44E-06	1.34E-06	8.22E-06	3.06E-06	5.33E-05	7.61E-05	9.89E-05	1.21E-04	1.44E-04	1.67E-04	1.90E-04	2.13E-04	2.36E-04	2.59E-04	2.82E-04
mercury	2.58E-08	5.47E-07	1.01E-06	1.31E-06	1.78E-06	1.46E-06	1.17E-07	6.62E-08	2.28E-08	2.20E-09	2.30E-08	4.74E-08	1.82E-07	3.19E-07	4.55E-07	5.84E-07	7.18E-07	8.52E-07	9.87E-07	1.12E-06	1.26E-06	1.39E-06	1.52E-06
nickel	1.98E-07	6.16E-06	1.51E-05	1.61E-05	2.49E-05	1.63E-05	2.12E-06	1.02E-06	9.32E-08	1.92E-08	1.14E-07	1.67E-06	6.02E-06	1.04E-05	1.47E-05	1.91E-05	2.34E-05	2.78E-05	3.21E-05	3.65E-05	4.08E-05	4.52E-05	4.96E-05
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
phosphorus	2.57E-06	5.93E-05	1.09E-04	1.39E-04	1.89E-04	1.49E-04	1.23E-05	6.88E-06	2.16E-06	2.18E-07	2.29E-06	1.46E-05	5.72E-05	9.99E-05	1.42E-04	1.84E-04	2.26E-04	2.69E-04	3.11E-04	3.53E-04	3.95E-04	4.38E-04	4.80E-04
selenium	4.67E-08	2.29E-07	5.63E-07	6.09E-07	9.24E-07	6.07E-07	7.79E-08	3.65E-08	3.62E-09	5.30E-10	4.45E-09	6.80E-08	2.47E-07	4.29E-07	6.10E-07	7.91E-07	9.72E-07	1.15E-06	1.33E-06	1.52E-06	1.70E-06	1.88E-06	2.06E-06
silicon	3.17E-04	7.08E-03	1.35E-02	1.71E-02	2.33E-02	1.89E-02	1.51E-03	8.81E-04	2.76E-04	2.83E-05	1.75E-03	8.71E-03	1.66E-02	2.45E-02	3.25E-02	3.98E-02	4.72E-02	5.46E-02	6.20E-02	6.94E-02	7.68E-02	8.42E-02	9.16E-02
silver	1.29E-08	2.73E-07	5.07E-07	6.55E-07	8.90E-07	7.30E-07	5.83E-08	3.31E-08	1.14E-08	1.10E-09	1.15E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
sulfates	8.63E-06	5.11E-04	1.23E-03	1.29E-03	1.99E-03	1.28E-03	1.80E-04	8.29E-05	7.05E-06	9.82E-07	8.14E-06	1.63E

Table 1-2.1C
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2017 Mitigated Construction Through 2035 Operations - Lifetime Exposure
Child Resident Scenario (Maximum 2019-2024)
(Based on Peak Location of Residential Cancer Risks[1])

HQ = Hazard Quotient
DBR = Daily Breathing Rate
EF = Fraction of Year
A = Absorption Fraction
CF = Conversion Factor

Cair = Exposure Concentration
ASF = Age sensitivity factor
ED = Fraction of Averaging time
FAH = Fraction of Time at Home
CPF = Cancer Potency Factor

	Toxicity Criteria		Cancer Risk to Child Resident						2019-2024 TOTAL
	EPA	CalEPA	Construction					Construction and Operation	Cancer Risk
	Inhalation CPF	Inhalation CPF	2019	2020	2021	2022	2023	2024	6-yr Child Resident
TAC	(mg/kg-day)$^{-1}$	(mg/kg-day)$^{-1}$	3rd Tri & 0<2	Ages 0<2	Ages 2<9	Ages 2<9	Ages 2<9	Ages 2<9	for Max Location
1,2,4-trimethylbenzene	NA	NA	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	1.0E-01	6.0E-01	4.75E-09	5.58E-09	1.72E-09	9.43E-10	9.57E-11	1.36E-07	1.49E-07
2,2,4-trimethylpentane	NA	NA	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	7.70E-03	1.00E-02	4.13E-11	4.86E-11	1.49E-11	8.20E-12	8.32E-13	1.18E-09	1.30E-09
acrolein	NA	NA	NC	NC	NC	NC	NC	NC	NC
benzene	2.73E-02	1.00E-01	4.45E-09	4.64E-09	1.60E-09	8.49E-10	7.25E-11	1.03E-07	1.15E-07
cumene	NA	NA	NC	NC	NC	NC	NC	NC	NC
cyclohexane	NA	NA	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	8.75E-03	8.70E-03	2.08E-10	2.15E-10	5.93E-11	6.57E-11	2.68E-12	3.82E-09	4.37E-09
ethylene	NA	NA	NC	NC	NC	NC	NC	NC	NC
formaldehyde	4.55E-02	2.10E-02	4.84E-10	5.69E-10	1.75E-10	9.62E-11	9.76E-12	1.39E-08	1.52E-08
hexane, n-isoprene, except from vegetative emission sources	NA	NA	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	NA	NA	NC	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	NA	NA	NC	NC	NC	NC	NC	NC	NC
naphthalene	1.19E-01	1.20E-01	8.26E-11	9.71E-11	2.99E-11	1.64E-11	1.66E-12	2.36E-09	2.59E-09
propionaldehyde	NA	NA	NC	NC	NC	NC	NC	NC	NC
propylene	NA	NA	NC	NC	NC	NC	NC	NC	NC
styrene	NA	NA	NC	NC	NC	NC	NC	NC	NC
toluene	NA	NA	NC	NC	NC	NC	NC	NC	NC
xylene (total)	NA	NA	NC	NC	NC	NC	NC	NC	NC
aluminum	NA	NA	NC	NC	NC	NC	NC	NC	NC
ammonium ion	NA	NA	NC	NC	NC	NC	NC	NC	NC
antimony	NA	NA	NC	NC	NC	NC	NC	NC	NC
arsenic	1.51E+01	1.20E+01	2.71E-09	3.60E-09	9.19E-10	8.28E-10	5.74E-11	7.53E-08	8.17E-08
barium	NA	NA	NC	NC	NC	NC	NC	NC	NC
bromine	NA	NA	NC	NC	NC	NC	NC	NC	NC
cadmium	6.30E+00	1.50E+01	4.87E-09	6.57E-09	1.61E-09	1.54E-09	1.00E-10	5.86E-11	1.47E-08
chlorine	NA	NA	NC	NC	NC	NC	NC	NC	NC
chromium (VI)	4.20E+01	5.10E+02	1.36E-07	1.69E-07	5.01E-08	3.58E-08	3.27E-09	4.62E-06	3.99E-07
cobalt	NA	NA	NC	NC	NC	NC	NC	NC	NC
copper	NA	NA	NC	NC	NC	NC	NC	NC	NC
lead	NA	4.20E-02	2.55E-10	3.43E-10	8.49E-11	7.96E-11	5.29E-12	4.09E-12	7.72E-10
manganese	NA	NA	NC	NC	NC	NC	NC	NC	NC
mercury	NA	NA	NC	NC	NC	NC	NC	NC	NC
nickel	8.40E-01	9.10E-01	2.21E-09	2.61E-09	8.32E-10	5.50E-10	5.49E-11	8.87E-11	6.41E-09
non-phosphate phosphorous	NA	NA	NC	NC	NC	NC	NC	NC	NC
phosphorus	NA	NA	NC	NC	NC	NC	NC	NC	NC
selenium	NA	NA	NC	NC	NC	NC	NC	NC	NC
silicon	NA	NA	NC	NC	NC	NC	NC	NC	NC
silver	NA	NA	NC	NC	NC	NC	NC	NC	NC
sulfates	NA	NA	NC	NC	NC	NC	NC	NC	NC
thallium	NA	NA	NC	NC	NC	NC	NC	NC	NC
vanadium	NA	NA	NC	NC	NC	NC	NC	NC	NC
zinc	NA	NA	NC	NC	NC	NC	NC	NC	NC
Diesel PM	1.05E+00	1.10E+00	1.88E-06	2.18E-06	4.96E-07	3.43E-07	2.61E-08	9.66E-09	4.93E-06
		TOTAL	2.03E-06	2.37E-06	5.53E-07	3.83E-07	2.97E-08	2.75E-07	5.65E-06

NA = Not Available
NC = Not Calculated

ug/m^3 = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-2.1B
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2017 Mitigated Construction Through 2035 Operations - Lifetime Exposure
70-Year Adult Resident Scenario
(Based on Peak Location of Residential Cancer Risks[1])

Equations
Risk = Cair*DBR*EF*CF*A*ASF*ED*FAH*CPF
HQ = Cair / REL
Where: HQ = Hazard Quotient; Cair = Exposure Concentration; DBR = Daily Breathing Rate; ASF = Age sensitivity factor; EF = Fraction of Year; ED = Fraction of Averaging time; A = Absorption Fraction; FAH = Fraction of Time at Home; CF = Conversion Factor; CPF = Cancer Potency Factor

	Toxicity Criteria		Cancer Risk to Adult 30-Year Resident																						TOTAL
	EPA	CalEPA	Construction							Construction and Operations															Cancer Risk
	Inhalation CPF	Inhalation CPF																							to Resident for
TAC	(mg/kg-day)$^{-1}$	(mg/kg-day)$^{-1}$	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035 - 2047				Max Location
1,2,4-trimethylbenzene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
1,3-butadiene	1.0E-01	6.0E-01	1.78E-11	1.93E-09	9.00E-10	9.33E-10	1.38E-09	7.79E-10	1.01E-10	1.30E-07	1.30E-07	1.30E-07	1.30E-07	1.31E-07	1.31E-07	1.31E-07	1.44E-08	1.44E-08	1.45E-08	6.52E-07	1.74E-06				
2,2,4-trimethylpentane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
acetaldehyde	7.70E-03	1.00E-02	1.95E-13	1.68E-11	7.83E-12	8.11E-12	1.21E-11	6.77E-12	8.74E-13	1.13E-09	1.13E-09	1.13E-09	1.13E-09	1.14E-09	1.14E-09	1.14E-09	1.25E-10	1.25E-10	1.26E-10	5.67E-09	1.52E-08				
acrolein	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
benzene	2.73E-02	1.00E-01	4.94E-11	3.41E-09	9.42E-10	8.37E-10	1.28E-09	6.92E-10	7.61E-11	9.81E-08	9.83E-08	9.85E-08	9.87E-08	9.89E-08	9.91E-08	9.93E-08	9.95E-09	1.09E-08	1.09E-08	1.09E-08	4.94E-07	1.32E-06			
cumene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
cyclohexane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
ethylbenzene	8.75E-03	8.70E-03	8.27E-13	6.51E-11	3.58E-11	3.86E-11	1.01E-10	5.34E-11	2.82E-12	3.64E-09	3.64E-09	3.65E-09	3.66E-09	3.66E-09	3.67E-09	3.68E-09	3.68E-09	4.04E-10	4.05E-10	4.06E-10	1.83E-08	4.91E-08			
ethylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
formaldehyde	4.55E-02	2.10E-02	1.82E-12	1.97E-10	9.18E-11	9.51E-11	1.41E-10	7.94E-11	1.03E-11	1.32E-08	1.32E-08	1.33E-08	1.33E-08	1.33E-08	1.34E-08	1.34E-08	1.47E-09	1.47E-09	1.47E-09	6.65E-08	1.78E-07				
hexane, n-isoprene, except from vegetati	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
methyl alcohol	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
methyl ethyl ketone	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
naphthalene	1.19E-01	1.20E-01	3.10E-13	3.38E-11	1.57E-11	1.62E-11	2.49E-11	1.35E-11	1.79E-12	2.28E-09	2.28E-09	2.28E-09	2.27E-09	2.27E-09	2.28E-09	2.28E-09	2.28E-09	2.50E-10	2.51E-10	2.51E-10	1.13E-08	3.03E-08			
propionaldehyde	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
propylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
styrene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
toluene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
xylene (total)	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
aluminum	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
ammonium ion	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
antimony	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
arsenic	1.51E+01	1.20E+01	6.00E-11	1.28E-09	5.06E-10	6.39E-10	8.80E-10	4.53E-10	6.00E-11	7.46E-11	7.47E-11	7.47E-11	2.28E-10	3.28E-10	4.13E-10	5.31E-10	6.52E-10	7.74E-10	8.95E-10	1.11E-10	1.24E-10	1.38E-10	6.85E-09	1.39E-08	
barium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
bromine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
cadmium	6.30E+00	1.50E+01	1.22E-10	2.39E-09	9.08E-10	1.17E-09	1.59E-09	1.04E-10	6.69E-11	4.82E-11	5.03E-11	8.99E-11	8.94E-11	1.10E-10	1.31E-10	1.51E-10	1.88E-11	2.10E-11	2.33E-11	1.15E-09	9.54E-09				
chlorine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
chromium (VI)	4.20E+01	5.10E+02	1.54E-09	5.48E-08	2.58E-08	2.87E-08	4.32E-08	2.97E-08	3.55E-09	3.98E-09	8.58E-09	1.44E-08	2.07E-08	2.65E-08	3.20E-08	3.68E-08	4.47E-08	5.55E-09	6.21E-09	6.88E-09	3.39E-07	7.35E-07			
cobalt	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
copper	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
lead	NA	4.20E-02	6.16E-12	1.24E-10	4.76E-11	6.10E-11	8.33E-11	6.76E-11	5.53E-12	4.18E-12	5.17E-12	7.30E-12	1.13E-11	1.33E-11	1.64E-11	1.94E-11	2.23E-11	2.76E-12	3.13E-12	3.46E-12	1.71E-10	6.74E-10			
manganese	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
mercury	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
nickel	8.40E-01	9.10E-01	1.74E-11	8.38E-10	4.21E-10	4.46E-10	6.58E-10	4.53E-10	6.00E-11	7.46E-11	7.47E-11	7.47E-11	2.28E-10	4.13E-10	5.31E-10	6.52E-10	7.74E-10	8.95E-10	1.11E-10	1.24E-10	1.38E-10	6.85E-09	1.39E-08		
non-phosphate phosphorous	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
phosphorus	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
selenium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
silicon	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
silver	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
sulfates	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
thallium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
vanadium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
zinc	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				NC
Diesel PM	1.05E+00	1.10E+00	1.78E-08	5.82E-07	3.80E-07	4.13E-07	4.74E-07	3.25E-07	3.16E-08	2.64E-07	2.63E-07	2.65E-07	2.74E-07	2.80E-07	2.87E-07	2.94E-07	3.01E-07	3.38E-08	3.46E-08	3.54E-08	1.63E-06	6.18E-06			
		TOTAL	1.78E-08	5.82E-07	3.80E-07	4.13E-07	4.74E-07	3.25E-07	3.16E-08	2.64E-07	2.63E-07	2.65E-07	2.74E-07	2.80E-07	2.87E-07	2.94E-07	3.01E-07	3.38E-08	3.46E-08	3.54E-08	1.63E-06	6.18E-06			

NA = Not Available
NC = Not Calculated

ug/m^3 = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Table 1-2.1D
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2017 Mitigated Construction Through 2035 Operations - Lifetime Exposure
Child Resident Scenario (Maximum 2019-2027)
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	3rd Trimester	Ages 0<2	Ages 2<9		Start Age	End Age	
Daily Breathing Rate (DBR)	361 L/kg-d	1090 L/kg-d	861 L/kg-d	Child Resident	0	9	Year
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless	School Child	7	18	Year
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless	30-year Resident	0	30	Year
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	70-year Resident	0	70	Year
Age-adjustment (ASF)	10 unitless	10 unitless	3 unitless				
Fraction of Averaging Time (ED)	0.00357 unitless	0.01429 unitless	0.01429 unitless				
Fraction of Time at Home (FAH)	1.00 unitless	1.00 unitless	1.00 unitless				

	Concentration at Location w/Maximum Risk (ug/m^3)																			
	Construction										Operation									
TAC	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
1,2,4-trimethylbenzene	3.28E-07	2.84E-05	8.72E-05	1.11E-04	1.44E-04	7.92E-05	8.04E-06	2.71E-06	0.00E+00	0.00E+00	8.20E-08	1.14E-02	1.15E-02	1.15E-02	1.15E-02	1.16E-02	1.16E-02	1.16E-02	1.16E-02	1.16E-02
1,3-butadiene	1.84E-07	1.59E-05	4.89E-05	6.23E-05	8.09E-05	4.44E-05	4.51E-06	1.52E-06	0.00E+00	0.00E+00	4.60E-08	6.40E-03	6.42E-03	6.45E-03	6.47E-03	6.49E-03	6.51E-03	6.53E-03	6.55E-03	6.56E-03
2,2,4-trimethylpentane	7.80E-07	6.75E-05	2.07E-04	2.64E-04	3.43E-04	1.88E-04	1.91E-05	6.44E-06	0.00E+00	0.00E+00	1.95E-07	2.71E-02	2.72E-02	2.73E-02	2.74E-02	2.75E-02	2.76E-02	2.76E-02	2.77E-02	2.78E-02
acetaldehyde	9.60E-08	8.30E-06	2.55E-05	3.25E-05	4.22E-05	2.32E-05	2.35E-06	7.92E-07	0.00E+00	0.00E+00	2.40E-08	3.34E-03	3.35E-03	3.36E-03	3.37E-03	3.39E-03	3.40E-03	3.41E-03	3.42E-03	3.42E-03
acrolein	4.40E-08	3.81E-06	1.17E-05	1.49E-05	1.93E-05	1.06E-05	1.08E-06	3.63E-07	0.00E+00	0.00E+00	1.10E-08	1.53E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03
benzene	2.97E-06	1.90E-04	2.75E-04	3.11E-04	4.53E-04	2.40E-04	2.05E-05	6.90E-06	0.00E+00	0.00E+00	2.09E-07	2.91E-02	2.92E-02	2.93E-02	2.94E-02	2.95E-02	2.96E-02	2.96E-02	2.97E-02	2.98E-02
cumene	4.00E-09	3.46E-07	1.06E-06	1.36E-06	1.76E-06	9.66E-07	9.80E-08	3.30E-08	0.00E+00	0.00E+00	1.00E-09	1.39E-04	1.40E-04	1.40E-04	1.41E-04	1.41E-04	1.42E-04	1.42E-04	1.42E-04	1.43E-04
cyclohexane	2.08E-07	1.80E-05	5.53E-05	7.05E-05	9.15E-05	5.02E-05	5.10E-06	1.72E-06	0.00E+00	0.00E+00	5.20E-08	7.24E-03	7.26E-03	7.29E-03	7.31E-03	7.34E-03	7.36E-03	7.38E-03	7.40E-03	7.41E-03
ethylbenzene	5.88E-07	3.78E-05	1.48E-04	1.65E-04	1.93E-04	2.13E-04	8.72E-06	1.04E-05	0.00E+00	6.96E-07	7.51E-06	1.24E-02	1.24E-02	1.25E-02	1.25E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02
ethylene	2.16E-06	1.86E-04	5.73E-04	7.30E-04	9.48E-04	5.21E-04	5.28E-05	1.78E-05	0.00E+00	0.00E+00	5.39E-07	7.50E-02	7.53E-02	7.55E-02	7.58E-02	7.61E-02	7.63E-02	7.65E-02	7.67E-02	7.68E-02
formaldehyde	5.36E-07	4.64E-05	1.43E-04	1.82E-04	2.36E-04	1.29E-04	1.31E-05	4.42E-06	0.00E+00	0.00E+00	1.34E-07	1.86E-02	1.87E-02	1.88E-02	1.88E-02	1.89E-02	1.90E-02	1.90E-02	1.91E-02	1.91E-02
hexane, n-	5.40E-07	4.67E-05	1.44E-04	1.83E-04	2.37E-04	1.30E-04	1.32E-05	4.46E-06	0.00E+00	0.00E+00	1.35E-07	1.88E-02	1.89E-02	1.89E-02	1.90E-02	1.90E-02	1.91E-02	1.92E-02	1.92E-02	1.93E-02
isoprene, except from vegetative e	4.80E-08	4.15E-06	1.28E-05	1.63E-05	2.11E-05	1.16E-05	1.18E-06	3.96E-07	0.00E+00	0.00E+00	1.20E-08	1.67E-03	1.68E-03	1.68E-03	1.69E-03	1.69E-03	1.70E-03	1.70E-03	1.71E-03	1.71E-03
methyl alcohol	4.00E-08	3.46E-06	1.06E-05	1.36E-05	1.76E-05	9.66E-06	9.80E-07	3.30E-07	0.00E+00	0.00E+00	1.00E-08	1.39E-03	1.40E-03	1.40E-03	1.41E-03	1.41E-03	1.42E-03	1.42E-03	1.42E-03	1.43E-03
methyl ethyl ketone	8.00E-09	6.92E-07	2.13E-06	2.71E-06	3.52E-06	1.93E-06	1.96E-07	6.60E-08	0.00E+00	0.00E+00	2.00E-09	2.78E-04	2.79E-04	2.80E-04	2.81E-04	2.82E-04	2.83E-04	2.84E-04	2.84E-04	2.85E-04
naphthalene	1.60E-08	1.38E-06	4.26E-06	5.42E-06	7.04E-06	3.86E-06	3.92E-07	1.32E-07	0.00E+00	0.00E+00	4.00E-09	5.57E-04	5.59E-04	5.61E-04	5.62E-04	5.64E-04	5.66E-04	5.68E-04	5.69E-04	5.70E-04
propionaldehyde	1.20E-08	1.04E-06	3.19E-06	4.07E-06	5.28E-06	2.90E-06	2.94E-07	9.90E-08	0.00E+00	0.00E+00	3.00E-09	4.18E-04	4.19E-04	4.20E-04	4.22E-04	4.23E-04	4.25E-04	4.26E-04	4.27E-04	4.28E-04
propylene	1.04E-06	8.96E-05	2.76E-04	3.51E-04	4.56E-04	2.50E-04	2.54E-05	8.55E-06	0.00E+00	0.00E+00	2.59E-07	3.60E-02	3.62E-02	3.63E-02	3.64E-02	3.65E-02	3.67E-02	3.68E-02	3.68E-02	3.69E-02
styrene	4.00E-08	3.46E-06	1.06E-05	1.36E-05	1.76E-05	9.66E-06	9.80E-07	3.30E-07	0.00E+00	0.00E+00	1.00E-08	1.39E-03	1.40E-03	1.40E-03	1.41E-03	1.41E-03	1.42E-03	1.42E-03	1.42E-03	1.43E-03
toluene	2.59E-06	1.88E-04	6.67E-04	7.84E-04	9.57E-04	8.25E-04	4.77E-05	3.67E-05	0.00E+00	1.94E-06	2.11E-05	6.78E-02	6.80E-02	6.82E-02	6.85E-02	6.87E-02	6.90E-02	6.92E-02	6.94E-02	6.96E-02
xylene (total)	2.00E-06	1.52E-04	5.10E-04	6.23E-04	7.74E-04	5.98E-04	3.99E-05	2.54E-05	0.00E+00	1.12E-06	1.23E-05	5.66E-02	5.68E-02	5.70E-02	5.72E-02	5.74E-02	5.76E-02	5.78E-02	5.79E-02	5.81E-02
aluminum	1.32E-04	1.90E-03	7.15E-03	7.39E-03	7.05E-03	4.60E-04	2.21E-04	1.01E-04	9.46E-06	1.02E-04	7.09E-04	9.79E-04	1.25E-03	1.52E-03	1.79E-03	2.06E-03	2.33E-03	2.60E-03	2.87E-03	3.14E-03
ammonium ion	2.23E-07	3.49E-06	9.46E-06	1.36E-05	1.46E-05	1.30E-05	9.09E-07	4.19E-07	1.68E-07	1.61E-08	1.72E-07	1.93E-05	2.67E-05	3.41E-05	4.14E-05	4.88E-05	5.61E-05	6.35E-05	7.08E-05	7.82E-05
antimony	2.64E-08	3.80E-07	9.75E-07	1.43E-06	1.46E-06	1.41E-06	2.01E-06	1.90E-06	2.02E-06	4.51E-07	6.23E-07	7.94E-07	9.66E-07	1.14E-06	1.31E-06	1.48E-06	1.65E-06	1.82E-06	1.99E-06	2.16E-06
arsenic	3.38E-08	5.20E-07	1.39E-06	2.01E-06	2.15E-06	1.95E-06	1.35E-07	6.24E-08	2.55E-08	2.50E-09	2.61E-08	1.15E-07	1.58E-07	2.02E-07	2.45E-07	2.88E-07	3.31E-07	3.74E-07	4.17E-07	4.60E-07
barium	3.50E-06	2.37E-04	9.13E-04	1.17E-03	1.63E-03	9.66E-04	1.08E-04	3.87E-05	1.55E-06	6.40E-07	3.20E-06	1.64E-04	2.23E-04	2.83E-04	3.42E-04	4.02E-04	4.62E-04	5.21E-04	5.81E-04	6.41E-04
bromine	5.04E-08	1.00E-06	2.92E-06	3.98E-06	4.66E-06	3.71E-06	1.31E-07	3.75E-08	3.90E-09	3.92E-08	3.02E-07	2.45E-07	1.88E-07	1.31E-07	7.36E-08	1.85E-08	1.85E-08	1.85E-08	1.85E-08	1.85E-08
cadmium	5.42E-08	7.80E-07	2.01E-06	2.94E-06	3.03E-06	2.89E-06	9.05E-08	4.13E-08	3.90E-09	4.17E-08	1.99E-08	2.75E-08	3.50E-08	4.26E-08	5.02E-08	5.78E-08	5.78E-08	5.78E-08	5.78E-08	5.78E-08
chlorine	6.05E-06	1.17E-04	3.36E-04	4.58E-04	5.32E-04	4.28E-04	3.54E-05	1.50E-05	4.52E-06	4.40E-07	4.69E-06	2.64E-05	1.25E-05	-1.36E-06	-1.52E-05	-2.91E-05	-4.30E-05	-5.69E-05	-7.08E-05	-8.47E-05
chromium (VI)	2.06E-08	5.10E-07	1.65E-06	2.22E-06	2.78E-06	1.98E-06	1.81E-07	7.18E-08	1.45E-08	1.91E-09	1.64E-08	1.84E-07	2.43E-07	3.01E-07	3.60E-07	4.18E-07	4.77E-07	5.36E-07	5.94E-07	6.53E-07
cobalt	1.88E-07	2.83E-06	7.37E-06	1.06E-05	1.12E-05	1.04E-05	7.13E-07	3.33E-07	1.43E-07	1.35E-08	1.44E-07	2.50E-07	1.76E-07	1.01E-07	2.68E-08	-4.77E-08	-1.22E-07	-1.97E-07	-2.72E-07	-3.47E-07
copper	6.56E-07	4.94E-05	1.92E-04	2.44E-04	3.43E-04	2.01E-04	2.28E-05	8.12E-06	2.61E-07	1.29E-07	6.12E-07	3.44E-05	4.68E-05	5.91E-05	7.15E-05	8.39E-05	9.62E-05	1.09E-04	1.21E-04	1.34E-04
lead	9.78E-07	1.44E-05	3.76E-05	5.47E-05	5.71E-05	5.35E-05	3.66E-06	1.69E-06	7.44E-08	7.06E-08	7.54E-07	1.07E-06	1.87E-06	2.27E-06	2.67E-06	3.07E-06	3.47E-06	3.87E-06	4.27E-06

Table 1-2.1E
2035 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2017 Mitigated Construction Through 2035 Operations - Lifetime Exposure
School Child Scenario, 9-year and 12-year
(Based on Peak Location of Residential Cancer Risks[1])

Equations
Risk = Car*DBR*EF*CPF*A*ASF*ED*FAH*CPF
HQ = Car / REL

HQ = Haza Where: HQ = Haza HQ = Hazard Quotient
DBR = Daily Breathing DBR = Dail DBR = Daily Breathing Rate
EF = Fraction of Year EF = Fracti EF = Fraction of Year
A = Absorption Fractior A = Absorp A = Absorption Fraction
CF = Conversion Facto CF = Conv CF = Conversion Factor

Car = Exposure Concentration
ASF = Age sensitivity factor
ED = Duration of Averaging time
FAH = Fraction of Time at Home
CPF = Cancer Potency Factor

	Toxicity Criteria		Cancer Risk to School Child																	2019-2027 TOTAL	2017-2028 TOTAL
	EPA	CalEPA				Construction						Construction and Operation								Cancer Risk	Cancer Risk
	Inhalation CPF	Inhalation CPF	2017	2018	2019	2019	2020	2020	2021	2022	2022	2023	2023	2024	2025	2026	2026	2027	2027	2028	9-yr School Child
TAC	(mg/kg-day)$^{-1}$	(mg/kg-day)$^{-1}$	Ages 2<9	Ages 2<9	Ages 2<9	Ages 2<3	Ages 2<9	Ages 2<16	Ages 2<16	Ages 2<9	Ages 2<36	Ages 2<9	Ages 2<16	Ages 2<16	Ages 2<16	Ages 2<16	Ages 16<30	Ages 2<16	Ages 16<30	Ages 16<30	for Max Location
1,2,4-trimethylbenzene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	1.05E-01	6.00E-01	2.90E-13	2.84E-10	7.84E-10	6.21E-10	9.14E-10	7.41E-10	1.06E-09	7.37E-10	5.86E-10	7.62E-11	6.19E-11	8.33E-08	8.35E-08	8.37E-08	1.26E-08	8.40E-08	1.26E-08	1.33E-08	3.38E-07
2,2,4-trimethylpentane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	7.70E-03	1.00E-02	2.52E-14	2.47E-12	6.85E-12	5.40E-12	7.95E-12	6.44E-12	9.23E-12	6.41E-12	5.21E-12	6.63E-13	5.39E-13	7.24E-10	7.26E-10	7.28E-10	1.12E-10	7.30E-10	1.12E-10	1.13E-10	2.94E-09
acrolein	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
benzene	2.73E-02	1.00E-01	7.88E-12	5.33E-10	7.51E-10	6.10E-10	7.79E-10	6.33E-10	9.97E-10	6.64E-10	5.39E-10	5.77E-11	4.69E-11	6.30E-08	6.32E-08	6.34E-08	9.76E-09	6.36E-08	9.79E-09	9.83E-09	2.56E-07
cumene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cyclohexane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	8.75E-03	8.70E-03	1.35E-13	9.86E-12	3.10E-11	2.54E-11	3.51E-11	2.85E-11	3.99E-11	4.85E-11	3.78E-11	2.14E-12	1.74E-12	2.34E-09	2.34E-09	2.35E-09	3.61E-10	2.36E-09	3.63E-10	3.64E-10	9.53E-09
ethylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	4.55E-02	2.10E-02	2.96E-13	2.89E-11	7.79E-11	6.33E-11	9.32E-11	7.57E-11	1.08E-10	7.51E-11	6.10E-11	7.77E-12	6.31E-12	8.49E-09	8.51E-09	8.54E-09	1.31E-09	8.56E-09	1.32E-09	1.33E-09	3.44E-08
hexane, n-	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
isoprene, except from vegetative emission sources	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
naphthalene	1.19E-01	1.20E-01	5.05E-14	4.94E-12	1.33E-11	1.08E-11	1.59E-11	1.29E-11	1.85E-11	1.28E-11	1.04E-11	1.33E-12	1.08E-12	1.45E-09	1.45E-09	1.46E-09	2.24E-10	1.46E-09	2.25E-10	2.25E-10	5.88E-09
propionaldehyde	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
propylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
styrene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
toluene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
xylene (total)	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
aluminum	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ammonium ion	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
antimony	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
arsenic	1.51E+01	1.20E+01	1.02E-11	1.88E-10	4.44E-10	3.61E-10	8.27E-10	5.08E-10	6.13E-10	6.53E-10	5.31E-10	4.57E-11	3.71E-11	4.49E-11	5.28E-11	6.07E-11	1.03E-11	5.28E-11	1.43E-11	1.63E-11	8.12E-09
barium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
bromine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cadmium	6.30E+00	1.90E+01	2.05E-11	3.52E-10	8.00E-10	6.50E-10	1.15E-09	9.34E-10	1.09E-09	1.21E-09	9.84E-10	7.94E-11	6.45E-11	3.93E-11	2.35E-11	1.95E-11	2.40E-12	3.25E-11	4.99E-12	3.55E-12	4.20E-09
chlorine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
chromium (VI)	4.20E+01	5.10E+02	2.66E-10	7.91E-09	2.25E-08	1.82E-08	2.88E-08	2.32E-08	3.27E-08	2.87E-08	2.34E-08	2.63E-09	2.14E-09	2.73E-09	3.17E-09	4.25E-09	6.33E-10	5.63E-09	8.86E-10	1.03E-09	1.25E-07
cobalt	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
copper	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
lead	NA	4.20E-02	1.03E-12	1.82E-11	4.16E-11	3.41E-11	5.98E-11	4.86E-11	5.73E-11	6.28E-11	5.10E-11	4.20E-12	3.41E-12	2.61E-12	2.18E-12	2.21E-12	3.39E-13	3.48E-12	5.36E-13	5.28E-13	2.24E-10
manganese	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
mercury	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
nickel	8.40E-01	9.10E-01	3.06E-12	1.20E-10	3.64E-10	2.96E-10	4.48E-10	3.64E-10	5.38E-10	4.44E-10	3.61E-10	4.43E-11	3.60E-11	5.16E-11	6.17E-11	8.38E-11	1.29E-11	1.09E-10	1.68E-11	2.01E-11	2.05E-09
non-phosphate phosphorous	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
phosphorus	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
selenium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silicon	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silver	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
sulfates	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
thallium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
vanadium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
zinc	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Diesel PM	1.05E+00	1.10E+00	2.60E-09	7.96E-08	3.01E-07	2.44E-07	3.64E-07	2.96E-07	3.10E-07	2.67E-07	2.17E-07	2.08E-08	1.69E-08	6.76E-09	1.64E-09	9.78E-10	1.50E-10	2.20E-09	3.39E-10	2.01E-10	1.22E-06
		TOTAL	2.92E-09	8.90E-08	3.27E-07	2.65E-07	3.97E-07	3.22E-07	3.47E-07	3.00E-07	2.44E-07	2.38E-08	1.93E-08	1.69E-07	1.65E-07	1.66E-07	2.55E-08	1.69E-07	2.60E-08	2.61E-08	2.00E-06

NA = Not Available
NC = Not Calculated

ug/m^3 = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-2.1D
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2017 Mitigated Construction Through 2035 Operations - Lifetime Exposure
Child Resident Scenario (Maximum 2019-2027)
(Based on Peak Location of Residential Cancer Risks[1])

Equations
Risk = Car*DBR*EF*CPF*A*ASF*ED*FAH*CPF
HQ = Car / REL

Where:
HQ = Hazard Quotient
DBR = Daily Breathing Rate
EF = Fraction of Year
A = Absorption Fraction
CF = Conversion Factor

Car = Exposure Concentration
ASF = Age sensitivity factor
ED = Duration of Averaging time
FAH = Fraction of Time at Home
CPF = Cancer Potency Factor

	Toxicity Criteria		Cancer Risk to Child Resident										2019-2027 TOTAL
	EPA	CalEPA	Construction					Construction and Operation					TOTAL Cancer Risk
	Inhalation CPF	Inhalation CPF	2019	2020	2021	2022	2023	2024	2025	2026	2027	2027	9-yr Child Resident
TAC	(mg/kg-day)$^{-1}$	(mg/kg-day)$^{-1}$	3rd Tri & 0<2	Ages 0<2	Ages 2<9	Ages 2<9	Ages 2<9	Ages 2<9	Ages 2<9	Ages 2<9	Ages 2<9	Ages 2<9	for Max Location
1,2,4-trimethylbenzene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	1.05E-01	6.00E-01	4.75E-09	5.58E-09	1.72E-09	9.43E-10	9.57E-11	1.36E-07	1.36E-07	1.37E-07	1.37E-07	5.60E-07	
2,2,4-trimethylpentane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	7.70E-03	1.00E-02	4.13E-11	4.86E-11	1.49E-11	8.20E-12	8.32E-13	1.18E-09	1.19E-09	1.19E-09	1.19E-09	4.87E-09	
acrolein	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
benzene	2.73E-02	1.00E-01	4.45E-09	4.64E-09	1.60E-09	8.49E-10	7.25E-11	1.03E-07	1.03E-07	1.04E-07	1.04E-07	4.25E-07	
cumene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cyclohexane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	8.75E-03	8.70E-03	2.08E-10	2.15E-10	5.93E-11	6.57E-11	2.68E-12	3.82E-09	3.83E-09	3.84E-09	3.86E-09	1.59E-08	
ethylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	4.55E-02	2.10E-02	4.84E-10	5.69E-10	1.77E-10	9.62E-11	9.76E-12	1.39E-08	1.39E-08	1.40E-08	1.40E-08	5.71E-08	
hexane, n-	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
isoprene, except from vegetative emission sources	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
naphthalene	1.19E-01	1.20E-01	8.26E-11	9.71E-11	2.99E-11	1.64E-11	1.66E-12	2.36E-09	2.37E-09	2.38E-09	2.39E-09	9.73E-09	
propionaldehyde	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
propylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
styrene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
toluene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
xylene (total)	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
aluminum	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ammonium ion	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
antimony	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
arsenic	1.51E+01	1.20E+01	2.71E-09	3.60E-09	9.13E-10	8.26E-10	5.74E-11	7.53E-11	7.80E-11	8.66E-11	1.19E-10	8.45E-09	
barium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
bromine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cadmium	6.30E+00	1.90E+01	4.87E-09	6.57E-09	1.61E-09	1.54E-09	1.00E-10	5.86E-11	3.65E-11	2.07E-11	4.48E-11	1.49E-08	
chlorine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
chromium (VI)	4.20E+01	5.10E+02	1.36E-07	1.69E-07	5.16E-08	2.58E-08	3.27E-09	4.82E-09	4.84E-09	5.47E-09	6.79E-09	4.16E-07	
cobalt	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
copper	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
lead	NA	4.20E-02	2.55E-10	3.43E-10	8.49E-11	7.96E-11	5.29E-12	4.09E-12	3.29E-12	2.88E-12	4.49E-12	7.83E-10	
manganese	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
mercury	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
nickel	8.40E-01	9.10E-01	2.21E-09	2.68E-09	8.32E-10	5.10E-10	5.45E-11	8.97E-11	8.99E-11	1.07E-10	1.29E-10	6.74E-09	
non-phosphate phosphorous	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
phosphorus	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
selenium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silicon	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silver	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
sulfates	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
thallium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
vanadium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
zinc	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Diesel PM	1.05E+00	1.10E+00	1.88E-06	2.18E-06	4.96E-07	3.43E-07	2.61E-08	9.66E-09	2.74E-09	1.67E-09	3.70E-09	4.94E-06	
		TOTAL	2.03E-06	2.37E-06	5.53E-07	3.83E-07	2.97E-08	2.75E-07	2.69E-07	2.69E-07	2.74E-07	6.46E-06	

NA = Not Available
NC = Not Calculated

ug/m^3 = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-2.2
2015 OEHHA Hazard Calculation for LAX Landside Access Modernization Program, 2017 Mitigated Construction Through 2035 Operations
Residential Scenario
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	3rd Trimester	Ages 0<2	Ages 2<9	Ages 2 <16	Ages 16<30	Ages 16<70		Start Age	End Age
Daily Breathing Rate (DBR)	361 L/kg-d	1090 L/kg-d	861 L/kg-d	745 L/kg-d	335 L/kg-d	290 L/kg-d	Child Resident	0	9 Year
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	School Child	7	18 Year
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless	30-year Resident	0	30 Year
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	70-year Resident	0	70 Year
Age-adjustment (ASF)	10 unitless	10 unitless	3 unitless	3 unitless	1 unitless	1 unitless			
Fraction of Averaging Time (ED)	0.00357 unitless	0.01429 unitless	0.01429 unitless	0.014286 unitless	0.2 unitless	0.771 unitless			
Fraction of Time at Home (FAH)	1.00 unitless	1.00 unitless	1.00 unitless	1 unitless	0.73 unitless	0.73 unitless			
School Child 8-hr Daily Breathing Rate (DBR)			640 L/kg-d	520 L/kg-d	240 L/kg-d				
School Child Fraction of Time at Home (FAH)			1 unitless	1 unitless	1 unitless				

	Concentration at Location w/Maximum Risk (ug/m^3)																		
	Construction										Operation								
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2035
TAC																			
1,2,4-trimethylbenzene	3.28E-07	3.85E-05	8.73E-05	9.05E-05	1.35E-04	7.56E-05	9.76E-06	3.85E-06	0.00E+00	0.00E+00	8.20E-08	1.26E-02	1.26E-02	1.26E-02	1.27E-02	1.27E-02	1.27E-02	1.27E-02	1.28E-02
1,3-butadiene	1.84E-07	2.16E-05	4.90E-05	5.08E-05	7.55E-05	4.24E-05	5.47E-06	2.16E-06	0.00E+00	0.00E+00	4.60E-08	7.05E-03	7.07E-03	7.08E-03	7.09E-03	7.11E-03	7.12E-03	7.14E-03	7.21E-03
2,2,4-trimethylpentane	7.80E-07	9.15E-05	2.08E-04	2.15E-04	3.20E-04	1.80E-04	2.32E-05	9.17E-06	0.00E+00	0.00E+00	1.95E-07	2.99E-02	3.00E-02	3.00E-02	3.01E-02	3.01E-02	3.02E-02	3.03E-02	3.05E-02
acetaldehyde	9.60E-08	1.13E-05	2.56E-05	2.65E-05	3.94E-05	2.21E-05	2.86E-06	1.13E-06	0.00E+00	0.00E+00	2.40E-08	3.68E-03	3.69E-03	3.70E-03	3.71E-03	3.72E-03	3.72E-03	3.73E-03	3.76E-03
acrolein	4.40E-08	5.16E-06	1.17E-05	1.21E-05	1.81E-05	1.01E-05	1.31E-06	5.17E-07	0.00E+00	0.00E+00	1.10E-08	1.69E-03	1.69E-03	1.69E-03	1.70E-03	1.70E-03	1.71E-03	1.71E-03	1.72E-03
benzene	3.06E-06	2.28E-04	3.08E-04	2.73E-04	4.18E-04	2.26E-04	2.49E-05	9.82E-06	0.00E+00	0.00E+00	2.09E-07	3.20E-02	3.21E-02	3.22E-02	3.22E-02	3.23E-02	3.24E-02	3.24E-02	3.27E-02
cumene	4.00E-07	4.69E-05	1.07E-04	1.10E-04	1.64E-04	9.22E-05	1.19E-05	4.70E-06	0.00E+00	0.00E+00	1.00E-07	1.53E-02	1.54E-02	1.54E-02	1.54E-02	1.55E-02	1.55E-02	1.55E-02	1.57E-02
cyclohexane	2.08E-07	2.44E-05	5.54E-05	5.74E-05	8.53E-05	4.79E-05	6.19E-06	2.44E-06	0.00E+00	0.00E+00	5.20E-08	7.97E-03	7.99E-03	8.00E-03	8.02E-03	8.04E-03	8.05E-03	8.07E-03	8.15E-03
ethylbenzene	5.88E-07	5.01E-05	1.34E-04	1.45E-04	3.78E-04	2.00E-04	1.06E-05	1.44E-05	0.00E+00	6.96E-07	7.98E-06	1.36E-02	1.37E-02	1.37E-02	1.38E-02	1.38E-02	1.38E-02	1.38E-02	1.39E-02
ethylene	2.16E-06	2.53E-04	5.74E-04	5.95E-04	8.84E-04	4.97E-04	6.41E-05	2.53E-05	0.00E+00	0.00E+00	5.39E-07	8.26E-02	8.30E-02	8.31E-02	8.33E-02	8.35E-02	8.36E-02	8.38E-02	8.44E-02
formaldehyde	5.36E-07	6.28E-05	1.43E-04	1.48E-04	2.20E-04	1.24E-04	1.59E-05	6.30E-06	0.00E+00	0.00E+00	1.34E-07	2.05E-02	2.06E-02	2.06E-02	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.10E-02
hexane, n-	5.40E-07	6.33E-05	1.44E-04	1.49E-04	2.22E-04	1.24E-04	1.61E-05	6.35E-06	0.00E+00	0.00E+00	1.35E-07	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02	2.09E-02	2.11E-02
isoprene, except from vegetative e	4.80E-08	5.63E-06	1.28E-05	1.32E-05	1.97E-05	1.11E-05	1.43E-06	5.64E-07	0.00E+00	0.00E+00	1.20E-08	1.84E-03	1.85E-03	1.85E-03	1.85E-03	1.86E-03	1.86E-03	1.86E-03	1.88E-03
methyl alcohol	4.00E-08	4.69E-06	1.07E-05	1.10E-05	1.64E-05	9.22E-06	1.19E-06	4.70E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.57E-03
methyl ethyl ketone	8.00E-09	9.38E-07	2.13E-06	2.21E-06	3.28E-06	1.84E-06	2.38E-07	9.40E-08	0.00E+00	0.00E+00	2.00E-09	3.07E-04	3.07E-04	3.08E-04	3.08E-04	3.09E-04	3.10E-04	3.10E-04	3.13E-04
naphthalene	1.60E-08	1.88E-06	4.26E-06	4.42E-06	6.56E-06	3.69E-06	4.76E-07	1.88E-07	0.00E+00	0.00E+00	4.00E-09	6.13E-04	6.14E-04	6.16E-04	6.17E-04	6.18E-04	6.19E-04	6.21E-04	6.27E-04
propionaldehyde	1.20E-08	1.41E-06	3.20E-06	3.31E-06	4.92E-06	2.77E-06	3.57E-07	1.41E-07	0.00E+00	0.00E+00	3.00E-09	4.60E-04	4.61E-04	4.62E-04	4.63E-04	4.64E-04	4.64E-04	4.65E-04	4.70E-04
propylene	1.04E-06	1.21E-04	2.76E-04	2.86E-04	4.25E-04	2.39E-04	3.08E-05	1.22E-05	0.00E+00	0.00E+00	2.59E-07	3.97E-02	3.98E-02	3.99E-02	4.00E-02	4.01E-02	4.02E-02	4.03E-02	
styrene	4.00E-08	4.69E-06	1.07E-05	1.10E-05	1.64E-05	9.22E-06	1.19E-06	4.70E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.57E-03
toluene	2.59E-06	2.52E-04	6.28E-04	6.67E-04	1.44E-03	7.78E-04	5.80E-05	5.13E-05	0.00E+00	0.00E+00	1.94E-06	2.24E-05	7.47E-02	7.48E-02	7.50E-02	7.51E-02	7.53E-02	7.54E-02	7.55E-02	7.63E-02
xylene (total)	2.00E-06	2.04E-04	4.97E-04	5.24E-04	1.04E-03	5.65E-04	4.84E-05	3.55E-05	0.00E+00	0.00E+00	1.12E-06	1.31E-05	6.24E-02	6.25E-02	6.26E-02	6.27E-02	6.28E-02	6.30E-02	6.31E-02	6.38E-02
aluminum	1.22E-04	2.60E-03	4.82E-03	6.22E-03	8.46E-03	6.93E-03	5.54E-04	3.15E-04	1.08E-04	1.04E-05	1.04E-05	1.06E-04	2.40E-04	2.68E-03	2.16E-03	3.75E-03	5.34E-03	6.84E-03	8.53E-03	1.01E-02	1.81E-02
ammonium ion	2.07E-07	4.79E-06	9.34E-06	1.17E-05	1.61E-05	1.28E-05	1.10E-06	6.04E-07	1.80E-07	1.77E-08	1.85E-07	1.53E-05	5.88E-05	1.02E-04	1.46E-04	1.89E-04	2.33E-04	2.76E-04	4.94E-04	
antimony	2.45E-08	5.19E-07	9.63E-07	1.24E-06	1.68E-06	1.39E-06	1.11E-07	6.24E-08	2.17E-08	2.05E-09	2.19E-08	3.58E-07	1.37E-06	2.39E-06	3.40E-06	4.41E-06	5.43E-06	6.44E-06	1.15E-05	
arsenic	3.13E-08	7.14E-07	1.38E-06	1.73E-06	2.39E-06	1.91E-06	1.64E-07	9.01E-08	2.75E-08	2.74E-09	2.80E-08	1.12E-08	3.47E-07	6.03E-07	8.59E-07	1.12E-06	1.37E-06	1.63E-06	2.91E-06	
barium	2.86E-06	3.42E-04	9.23E-04	9.31E-04	1.50E-03	9.07E-04	1.39E-04	6.15E-05	1.63E-06	6.49E-07	3.27E-06	1.30E-04	4.85E-04	8.39E-04	1.19E-03	1.55E-03	1.90E-03	2.26E-03	4.03E-03	
bromine	4.65E-08	1.38E-06	2.91E-06	3.36E-06	4.90E-06	3.56E-06	3.80E-07	1.47E-07	4.03E-08	4.26E-09	4.20E-08	2.41E-07	6.84E-07	1.13E-06	1.57E-06	2.01E-06	2.45E-06	2.90E-06	5.11E-06	
cadmium	5.03E-08	1.07E-06	1.98E-06	2.55E-06	3.47E-06	2.85E-06	2.27E-07	1.29E-07	4.45E-08	4.29E-09	4.49E-08	1.58E-08	6.05E-08	1.05E-07	1.50E-07	1.95E-07

Table 1-2.3
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2017 Mitigated Construction Through 2035 Operations - Lifetime Exposure
Worker Scenario
(Based on Peak Location of Commercial Cancer Risks[1])

Equations
Risk = Car * DBR * EF * CF * ASF * ED * FAH * CPF
HQ = Car / REL
Where: HQ = Hazard Quotient; Car = Exposure Concentration; DBR = Daily Breathing Rate; ASF = Age sensitivity factor; EF = Fraction of Year; ED = Fraction of Averaging time; A = Absorption Fraction; FAH = Fraction of Time at Home; CF = Conversion Factor; CPF = Cancer Potency Factor

	Toxicity Criteria		Cancer Risk to Worker																					
	EPA Inhalation CPF	CalEPA Inhalation CPF	Construction							Construction and Operations					Operation								TOT AL Cancer Risk to Worker for Max Location
TAC	(mg/kg-day)$^{-1}$	(mg/kg-day)$^{-1}$	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035-2042	
1,2,4-trimethylbenzene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	1.05E-01	6.00E-01	2.89E-13	2.74E-11	1.12E-10	2.03E-10	3.09E-10	1.87E-10	7.97E-12	2.09E-08	2.10E-08	2.10E-08	2.11E-08	2.12E-08	2.13E-08	2.13E-08	2.14E-08	2.06E-08	2.07E-08	2.07E-08	1.46E-07	3.78E-07
2,2,4-trimethylpentane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	7.70E-03	1.00E-02	2.28E-15	2.38E-13	9.75E-13	1.74E-12	2.69E-12	1.63E-12	6.93E-14	1.82E-10	1.82E-10	1.83E-10	1.84E-10	1.84E-10	1.85E-10	1.85E-10	1.86E-10	1.79E-10	1.80E-10	1.80E-10	1.27E-09	3.28E-09
acrolein	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
benzene	2.73E-02	1.00E-01	7.53E-13	5.23E-11	1.02E-10	1.83E-10	2.74E-10	1.60E-10	6.04E-12	1.58E-08	1.59E-08	1.59E-08	1.60E-08	1.60E-08	1.61E-08	1.62E-08	1.62E-08	1.56E-08	1.56E-08	1.57E-08	1.10E-07	2.86E-07
cumene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cyclohexane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	8.70E-03	8.70E-03	1.20E-14	9.33E-13	4.33E-12	6.72E-12	1.00E-11	1.77E-11	2.24E-13	5.86E-10	5.88E-10	5.90E-10	5.92E-10	5.94E-10	5.96E-10	5.98E-10	6.00E-10	5.77E-10	5.79E-10	5.81E-10	4.08E-09	1.06E-08
ethylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	4.55E-02	2.10E-02	2.64E-14	2.75E-12	1.14E-11	2.04E-11	3.15E-11	1.91E-11	8.13E-13	2.13E-09	2.14E-09	2.15E-09	2.15E-09	2.16E-09	2.17E-09	2.17E-09	2.18E-09	2.10E-09	2.11E-09	2.11E-09	1.48E-08	3.85E-08
hexane, n-	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
isoprene, except from vegetative emissions sources	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
naphthalene	1.19E-01	1.20E-01	4.59E-15	4.78E-13	1.95E-12	3.48E-12	5.37E-12	3.26E-12	1.38E-13	3.63E-10	3.65E-10	3.66E-10	3.67E-10	3.68E-10	3.70E-10	3.71E-10	3.72E-10	3.58E-10	3.59E-10	3.60E-10	2.53E-09	6.57E-09
propionaldehyde	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
propylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
styrene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
toluene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
xylene (total)	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
aluminum	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ammonium ion	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
antimony	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
arsenic	1.53E+01	1.20E+01	1.09E-12	1.83E-11	6.94E-11	1.24E-10	1.65E-10	9.32E-11	4.49E-12	6.10E-12	1.06E-11	1.63E-11	2.33E-11	2.86E-11	3.47E-11	4.09E-11	4.71E-11	5.10E-11	6.53E-11	7.28E-11	8.03E-11	4.87E-10	1.45E-09
barium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
bromine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cadmium	6.30E+00	1.90E+01	2.12E-12	3.56E-11	1.10E-10	2.27E-10	2.99E-10	4.02E-10	7.93E-12	4.83E-12	3.87E-12	3.70E-12	6.59E-12	6.23E-12	7.58E-12	8.93E-12	1.03E-11	1.11E-11	1.24E-11	1.37E-11	1.05E-10	1.28E-09
chlorine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
chromium (VI)	4.20E+01	5.10E+02	2.71E-11	7.69E-10	3.14E-09	5.77E-09	9.07E-09	8.36E-09	2.64E-10	3.73E-10	6.80E-10	1.06E-09	1.47E-09	1.84E-09	2.24E-09	2.63E-09	3.02E-09	3.27E-09	3.65E-09	4.03E-09	3.09E-08	8.25E-08
cobalt	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
copper	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
lead	4.20E-02	1.07E-03	1.84E-12	5.78E-12	1.98E-11	1.57E-11	2.07E-11	4.19E-13	3.35E-13	4.12E-13	5.94E-13	8.14E-13	9.27E-13	1.13E-12	1.33E-12	1.53E-12	1.68E-12	1.85E-12	2.04E-12	1.56E-11	8.46E-11	
manganese	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
mercury	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
nickel	8.40E-01	9.10E-01	3.08E-13	1.18E-11	5.11E-11	9.10E-11	1.24E-10	1.34E-10	4.49E-12	7.14E-12	1.30E-11	2.11E-11	2.93E-11	3.26E-11	3.47E-11	4.03E-11	4.72E-11	6.03E-11	6.53E-11	7.28E-11	8.03E-11	6.19E-10	1.53E-09
non-phosphate phosphorous	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
phosphorus	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
selenium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silicon	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silver	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
sulfates	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
thallium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
vanadium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
zinc	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Diesel PM	1.05E+00	1.10E+00	2.89E-10	8.03E-09	4.35E-08	7.49E-08	8.50E-08	7.17E-08	2.07E-09	8.02E-10	1.97E-10	1.34E-10	3.03E-10	1.89E-10	2.29E-10	2.69E-10	3.10E-10	3.33E-10	3.74E-10	4.13E-10	3.16E-09	2.92E-07
		TOTAL	2.90E-10	8.95E-09	4.71E-08	8.15E-08	9.54E-08	8.12E-08	2.36E-09	4.12E-08	4.10E-08	4.15E-08	4.22E-08	4.26E-08	4.32E-08	4.38E-08	4.44E-08	4.31E-08	4.37E-08	4.43E-08	3.14E-07	1.10E-06

NA = Not Available; ug/m^3 = micrograms per cubic meter
NC = Not Calculated; mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-2.2
2015 OEHHA Hazard Calculation for LAX Landside Access Modernization Program, 2017 Mitigated Construction Through 2035 Operations
Residential Scenario
(Based on Peak Location of Residential Cancer Risks[1])

Equations
Risk = Car * DBR * EF * CF * ASF * ED * FAH * CPF
HQ = Car / REL
Where: HQ = Hazard Quotient; Car = Exposure Concentration; DBR = Daily Breathing Rate; ASF = Age sensitivity factor; EF = Fraction of Year; ED = Fraction of Averaging time; A = Absorption Fraction; FAH = Fraction of Time at Home; CF = Conversion Factor; CPF = Cancer Potency Factor

	Toxicity Criteria		Hazard Quotient to Resident												
	EPA	CalEPA	Construction							Construction and Operation					
	REL	REL													
TAC	(ug/m^3)	(ug/m^3)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027		
1,2,4-trimethylbenzene	7.00E+00	NA	4.69E-08	5.49E-06	1.25E-05	1.29E-05	1.92E-05	1.08E-05	1.39E-06	1.80E-03	1.80E-03	1.80E-03	1.81E-03		
1,3-butadiene	2.00E+00	2.00E+00	9.20E-08	1.08E-05	2.45E-05	2.54E-05	3.77E-05	2.12E-05	2.74E-06	3.53E-03	3.53E-03	3.54E-03	3.55E-03		
2,2,4-trimethylpentane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC		
acetaldehyde	9.00E+00	1.40E+02	6.86E-10	8.04E-08	1.83E-07	1.89E-07	2.81E-07	1.58E-07	2.04E-08	2.63E-05	2.63E-05	2.64E-05	2.64E-05		
acrolein	2.00E-02	3.50E-01	1.26E-07	1.47E-05	3.35E-05	3.47E-05	5.16E-05	2.90E-05	3.74E-06	4.82E-03	4.83E-03	4.84E-03	4.85E-03		
benzene	3.00E+01	3.00E+00	1.02E-06	7.61E-05	1.03E-04	9.11E-05	1.39E-04	7.53E-05	8.29E-06	1.07E-02	1.07E-02	1.07E-02	1.07E-02		
cumene	4.00E+02	1.00E+03	1.17E-09	2.06E-07	4.73E-07	4.91E-07	7.29E-07	4.10E-07	5.25E-08	6.82E-05	6.83E-05	6.84E-05	6.85E-05		
cyclohexane	6.00E+03	NA	3.47E-11	4.06E-09	9.23E-09	9.57E-09	1.42E-08	7.99E-09	1.03E-09	1.33E-06	1.33E-06	1.33E-06	1.34E-06		
ethylbenzene	1.00E+03	2.00E+03	2.94E-10	2.29E-08	5.70E-08	6.71E-08	7.24E-08	1.89E-07	1.00E-07	5.30E-09	6.83E-06	6.84E-06	6.85E-06	6.87E-06	
ethylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC		
formaldehyde	9.80E+00	9.00E+00	5.96E-08	6.98E-06	1.59E-05	1.64E-05	2.44E-05	1.37E-05	1.77E-06	2.28E-03	2.29E-03	2.29E-03	2.30E-03		
hexane, n-	7.00E+02	7.00E+03	7.71E-11	9.05E-09	2.05E-08	2.13E-08	3.16E-08	1.78E-08	2.30E-09	2.96E-06	2.96E-06	2.97E-06	2.97E-06		
isoprene, except from vegetative emissions sources	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC		
methyl alcohol	2.00E+04	4.00E+03	1.00E-11	1.17E-09	2.66E-09	2.76E-09	4.10E-09	2.31E-09	2.98E-10	3.83E-07	3.84E-07	3.85E-07	3.86E-07		
methyl ethyl ketone	5.00E+03	NA	1.60E-12	1.88E-10	4.26E-10	4.42E-10	6.56E-10	3.69E-10	4.76E-11	6.13E-08	6.14E-08	6.16E-08	6.17E-08		
naphthalene	3.00E+00	9.00E+00	1.78E-09	2.09E-07	4.73E-07	4.91E-07	7.29E-07	4.10E-07	5.25E-08	6.82E-05	6.83E-05	6.84E-05	6.85E-05		
propionaldehyde	8.00E+00	NA	1.50E-09	1.76E-07	3.99E-07	4.14E-07	6.15E-07	3.46E-07	4.46E-08	5.75E-05	5.76E-05	5.77E-05	5.78E-05		
propylene	3.00E+03	3.00E+03	3.45E-10	4.05E-08	9.19E-08	9.53E-08	1.42E-07	7.96E-08	1.03E-08	1.32E-05	1.33E-05	1.33E-05	1.33E-05		
styrene	1.00E+03	9.00E+02	4.44E-11	5.21E-09	1.18E-08	1.22E-08	1.82E-08	1.02E-08	1.32E-09	1.70E-06	1.71E-06	1.71E-06	1.71E-06		
toluene	5.00E+03	3.00E+02	8.64E-09	8.39E-07	2.09E-06	2.22E-06	4.81E-06	2.59E-06	1.93E-07	2.49E-04	2.49E-04	2.50E-04	2.50E-04		
xylene (total)	1.00E+02	7.00E+02	2.86E-09	2.92E-07	7.10E-07	7.49E-07	1.49E-06	8.08E-07	6.92E-08	8.92E-05	8.93E-05	8.95E-05	8.97E-05		
aluminum	5.00E+01	NA	2.45E-05	5.19E-04	9.61E-04	1.04E-03	1.69E-03	1.39E-03	1.11E-04	1.75E-04	4.53E-04	7.52E-04	1.06E-03		
ammonium ion	1.00E+02	2.00E+02	1.03E-09	2.39E-08	4.67E-08	5.84E-08	8.07E-08	6.38E-08	5.52E-09	7.98E-08	2.95E-07	5.12E-07	7.30E-07		
antimony	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC		
arsenic	1.50E-02	1.20E-02	2.34E-10	1.14E-08	2.82E-08	3.00E-08	4.62E-08	3.04E-08	3.89E-09	5.31E-06	5.96E-06	6.61E-06	7.42E-06	1.06E-03	
barium	5.00E-01	NA	5.73E-06	6.83E-04	1.85E-03	1.86E-03	3.00E-03	1.81E-03	2.77E-04	3.82E-04	9.72E-04	1.68E-03	2.39E-03		
bromine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC		
cadmium	1.00E-02	2.00E-02	2.52E-06	5.33E-05	9.88E-05	1.29E-04	1.73E-04	1.42E-04	1.14E-05	7.24E-06	5.25E-06	5.45E-06	9.74E-06		
chlorine	1.50E-01	2.00E-01	2.80E-05	8.04E-04	1.67E-03	1.94E-03	2.81E-03	2.08E-03	2.14E-04	2.15E-04	2.65E-04	3.78E-04	5.36E-04		
chromium (VI)	1.00E-01	2.00E-01	9.36E-05	3.58E-06	8.28E-06	9.19E-06	1.38E-05	9.51E-06	1.14E-06	1.28E-06	2.75E-06	4.62E-06	6.64E-06		
cobalt	6.00E-03	NA	2.90E-05	6.43E-04	1.21E-03	1.53E-03	2.11E-03	1.70E-03	1.43E-04	1.13E-04	1.15E-04	1.48E-04	2.28E-04		
copper	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC		
lead	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC		
manganese	5.00E-02	9.00E-02	1.71E-05	4.62E-04	9.60E-04	1.15E-03	1.64E-03	1.23E-03	1.22E-04	1.54E-04	3.58E-04	5.96E-04	8.61E-04		
mercury	3.00E-01	3.00E-02	8.60E-07	1.82E-05	3.38E-05	4.37E-05	5.93E-05	4.87E-05	3.89E-06	3.79E-06	6.81E-06	1.06E-05	1.58E-05		
nickel	9.00E-02	1.40E-02	8.45E-06	4.39E-04	1.08E-03	1.19E-03	1.78E-03	1.16E-03	1.54E-04	1.91E-04	4.37E-04	7.42E-04	1.06E-03		
non-phosphate phosphorous	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC		
phosphorus	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC		
selenium	2.00E-01	2.00E-01	2.34E-10	1.14E-08	2.82E-08	3.00E-08	4.62E-08	3.04E-08	3.89E-09	5.13E-09	1.25E-08	2.15E-08	3.07E-08		
silicon	3.00E+00	3.00E+00	1.06E-04	2.35E-03	4.49E-03	5.69E-03	7.82E-03	6.29E-03	5.30E-04	8.78E-04	2.33E-03	3.89E-03	5.63E-03		
silver	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC		
sulfates	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC		
thallium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC		
vanadium	1.00E-01	NA	4.47E-06	1.29E-04	2.74E-04	3.22E-04	4.66E-04	3.43E-04	3.54E-05	3.68E-05	7.43E-05	1.23E-04	1.78E-04		
zinc	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC		
Dies el PM	5.00E+00	5.00E+00	1.80E-05	6.30E-04	2.08E-03	2.25E-03	2.52E-03	1.73E-03	1.64E-04	6.94E-05	1.43E-05	9.21E-06	2.01E-05		
		TOTAL	0.0002	0.007	0.015	0.02	0.02	0.02	0.002	0.03	0.03	0.03	0.04		

NA = Not Available; ug/m^3 = micrograms per cubic meter
NC = Not Calculated; mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-2.4
2015 OEHHA Hazard Calculation for LAX Landside Access Modernization Program, 2017 Mitigated Construction Through 2035 Operations
Worker Scenario
(Based on Peak Location of Commercial Cancer Risks[1])

Exposure Parameters	Ages 16<30	Ages 16<70
Worker 8-hr Daily Breathing Rate (DBR)	240 L/kg-d	230 L/kg-d
Fraction of Year (EF)	0.68 unitless	0.68 unitless
Absorption Fraction (A)	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L
Age-adjustment (ASF)	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.01 unitless	0.157 unitless
Worker Adjustment Factor (WAH)	1 unitless	1 unitless

	Concentration at Location w/Maximum Risk (ug/m^3)																				
	Construction							Operation													
TAC	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035		
1,2,4-trimethylbenzene	5.74E-07	7.77E-05	9.04E-04	1.18E-04	6.70E-05	3.61E-05	2.03E-05	7.87E-06	8.20E-06	8.20E-06	2.46E-07	7.85E-03	7.88E-03	7.91E-03	7.93E-03	7.96E-03	7.99E-03	8.01E-03	8.14E-03		
1,3-butadiene	3.22E-07	4.36E-05	5.07E-04	6.63E-05	3.76E-05	2.02E-05	1.14E-05	4.42E-06	4.60E-06	4.60E-06	1.38E-07	4.41E-03	4.42E-03	4.44E-03	4.45E-03	4.47E-03	4.48E-03	4.49E-03	4.57E-03		
2,2,4-trimethylpentane	1.37E-06	1.85E-04	2.15E-03	2.81E-04	1.59E-04	8.58E-05	4.82E-05	1.87E-05	1.95E-05	1.95E-05	5.85E-07	1.87E-02	1.87E-02	1.88E-02	1.89E-02	1.89E-02	1.90E-02	1.91E-02	1.94E-02		
acetaldehyde	1.68E-07	2.28E-05	2.65E-04	3.46E-05	1.96E-05	1.06E-05	5.93E-06	2.30E-06	2.40E-06	2.40E-06	7.20E-08	2.30E-03	2.31E-03	2.32E-03	2.33E-03	2.34E-03	2.35E-03	2.36E-03	2.38E-03		
acrolein	7.70E-08	1.04E-05	1.21E-04	1.59E-05	8.99E-06	4.84E-06	2.72E-06	1.06E-06	1.10E-06	1.10E-06	3.30E-08	1.05E-03	1.06E-03	1.06E-03	1.06E-03	1.07E-03	1.07E-03	1.07E-03	1.09E-03		
benzene	5.09E-06	4.26E-04	2.95E-03	5.09E-04	2.24E-04	1.14E-04	5.16E-05	2.01E-05	2.09E-05	2.09E-05	6.27E-07	2.00E-02	2.01E-02	2.02E-02	2.02E-02	2.03E-02	2.04E-02	2.04E-02	2.08E-02		
cumene	7.00E-09	9.48E-07	1.10E-05	1.44E-06	8.17E-07	4.40E-07	2.47E-07	9.60E-08	1.00E-07	1.00E-07	3.00E-09	9.58E-05	9.61E-05	9.64E-05	9.67E-05	9.71E-05	9.74E-05	9.77E-05	9.93E-05		
cyclohexane	3.64E-07	4.93E-05	5.73E-04	7.49E-05	4.25E-05	2.29E-05	1.28E-05	4.99E-06	5.22E-06	5.20E-06	1.56E-07	4.98E-03	5.00E-03	5.01E-03	5.03E-03	5.05E-03	5.06E-03	5.08E-03	5.16E-03		
ethylbenzene	8.59E-07	1.01E-04	1.13E-03	2.24E-04	3.07E-04	1.03E-04	2.20E-05	3.87E-05	8.90E-06	1.71E-06	1.63E-05	8.52E-03	8.55E-03	8.58E-03	8.61E-03	8.64E-03	8.67E-03	8.70E-03	8.84E-03		
ethylene	3.77E-06	5.11E-04	5.94E-03	7.77E-04	4.40E-04	2.37E-04	1.33E-04	5.71E-05	5.39E-05	5.39E-05	1.62E-06	5.16E-02	5.18E-02	5.20E-02	5.21E-02	5.23E-02	5.25E-02	5.27E-02	5.35E-02		
formaldehyde	9.38E-07	1.27E-04	1.48E-03	1.93E-04	1.09E-04	5.90E-05	3.31E-05	1.28E-05	1.34E-05	1.34E-05	4.02E-07	1.28E-02	1.29E-02	1.29E-02	1.30E-02	1.30E-02	1.31E-02	1.31E-02	1.33E-02		
hexane, n-	9.49E-07	1.28E-04	1.49E-03	1.95E-04	1.10E-04	5.94E-05	3.33E-05	1.30E-05	1.35E-05	1.35E-05	4.05E-07	1.29E-02	1.30E-02	1.30E-02	1.31E-02	1.31E-02	1.31E-02	1.32E-02	1.34E-02		
isoprene, except from vegetative emissions sources	8.40E-08	1.14E-05	1.32E-04	1.73E-05	9.80E-06	5.28E-06	2.96E-06	1.15E-06	1.20E-06	3.60E-08	1.15E-03	1.16E-03	1.16E-03	1.16E-03	1.17E-03	1.17E-03	1.17E-03	1.17E-03	1.19E-03		
methyl alcohol	7.00E-08	9.48E-06	1.10E-04	1.44E-05	8.17E-06	4.40E-06	2.47E-06	9.60E-07	1.00E-06	1.00E-06	3.00E-08	9.58E-04	9.61E-04	9.64E-04	9.67E-04	9.71E-04	9.74E-04	9.77E-04	9.93E-04		
methyl ethyl ketone	1.40E-08	1.90E-06	2.20E-05	2.88E-06	1.63E-06	8.80E-07	4.94E-07	1.92E-07	2.00E-07	2.00E-07	6.00E-09	1.92E-04	1.92E-04	1.93E-04	1.93E-04	1.94E-04	1.95E-04	1.95E-04	1.99E-04		
naphthalene	2.80E-08	3.79E-06	4.41E-05	5.76E-06	3.27E-06	1.76E-06	9.88E-07	3.84E-07	4.00E-07	4.00E-07	1.20E-08	3.83E-04	3.84E-04	3.86E-04	3.87E-04	3.88E-04	3.90E-04	3.91E-04	3.97E-04		
propionaldehyde	2.10E-08	2.84E-06	3.31E-05	4.32E-06	2.45E-06	1.32E-06	7.41E-07	2.88E-07	3.00E-07	3.00E-07	9.00E-09	2.87E-04	2.88E-04	2.89E-04	2.90E-04	2.91E-04	2.92E-04	2.93E-04	2.98E-04		
propylene	1.81E-06	2.46E-04	2.85E-03	3.73E-04	2.12E-04	1.14E-04	6.40E-05	2.48E-05	2.58E-05	2.58E-05	7.77E-07	2.48E-02	2.49E-02	2.50E-02	2.51E-02	2.51E-02	2.52E-02	2.53E-02	2.57E-02		
styrene	7.00E-08	9.48E-06	1.10E-04	1.44E-05	8.17E-06	4.40E-06	2.47E-06	9.60E-07	1.00E-06	1.00E-06	3.00E-08	9.58E-04	9.61E-04	9.64E-04	9.67E-04	9.71E-04	9.74E-04	9.77E-04	9.93E-04		
toluene	4.09E-06	5.07E-04	5.77E-03	9.68E-04	1.09E-03	3.92E-04	1.20E-04	1.31E-04	4.87E-05	5.05E-06	4.86E-05	4.66E-02	4.69E-02	4.72E-02	4.75E-02	4.77E-02	4.80E-02	4.82E-02	4.94E-02		
xylene (total)	3.22E-06	4.12E-04	4.72E-03	7.40E-04	7.09E-04	2.82E-04	1.01E-04	8.76E-05	4.07E-05	3.02

Table 1-3.1A
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program ,2024 With Project vs. 2024 Without Project Operations with 2024-2027 Unmitigated Construction - Lifetime Exposure, 30-Year Adult Resident Scenario
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	3rd Trimester	Ages 0<2	Ages 2<9	Ages 2<16	Ages 16<30	Ages 16<70
Daily Breathing Rate (DBR)	361 L/kg-d	1090 L/kg-d	861 L/kg-d	745 L/kg-d	335 L/kg-d	290 L/kg-d
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L
Age-adjustment (ASF)	10 unitless	10 unitless	3 unitless	3 unitless	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.00357 unitless	0.01429 unitless	0.01429 unitless	0.01429 unitless	0.2 unitless	0.771 unitless
Fraction of Time at Home (FAH)	1.00 unitless	1.00 unitless	1.00 unitless	1 unitless	0.73 unitless	0.73 unitless

	Start Age	End Age
Child Resident	0	9 Year
School Child	7	18 Year
30-year Resident	0	30 Year
70-year Resident	0	70 Year

	Concentration at Location w/Maximum Risk (ug/m³)																	
	Construction by Year				Operation by Year													
	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
TAC																		
1,2,4-trimethylbenzene	3.77E-06	0.00E+00	0.00E+00	8.20E-08	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.27E-02	1.27E-02	1.27E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02
1,3-butadiene	2.12E-06	0.00E+00	0.00E+00	4.60E-08	7.05E-03	7.07E-03	7.08E-03	7.09E-03	7.1 1E-03	7.12E-03	7.14E-03	7.15E-03	7.16E-03	7.18E-03	7.19E-03	7.21E-03
2,2,4-trimethylpentane	8.97E-06	0.00E+00	0.00E+00	1.95E-07	2.99E-02	3.00E-02	3.00E-02	3.01E-02	3.01E-02	3.02E-02	3.03E-02	3.03E-02	3.04E-02	3.04E-02	3.05E-02	3.05E-02
acetaldehyde	1.10E-06	0.00E+00	0.00E+00	2.40E-08	3.68E-03	3.69E-03	3.69E-03	3.70E-03	3.71E-03	3.72E-03	3.72E-03	3.73E-03	3.74E-03	3.74E-03	3.75E-03	3.76E-03
acrolein	5.06E-07	0.00E+00	0.00E+00	1.10E-08	1.69E-03	1.69E-03	1.69E-03	1.70E-03	1.70E-03	1.71E-03	1.71E-03	1.71E-03	1.72E-03	1.72E-03	1.72E-03	1.72E-03
benzene	9.61E-06	0.00E+00	0.00E+00	2.09E-07	3.22E-02	3.21E-02	3.22E-02	3.22E-02	3.23E-02	3.24E-02	3.24E-02	3.25E-02	3.25E-02	3.26E-02	3.27E-02	3.27E-02
cumene	4.60E-08	0.00E+00	0.00E+00	1.00E-09	1.53E-04	1.54E-04	1.54E-04	1.54E-04	1.55E-04	1.55E-04	1.55E-04	1.55E-04	1.56E-04	1.56E-04	1.56E-04	1.57E-04
cyclohexane	2.39E-06	0.00E+00	0.00E+00	5.20E-08	7.97E-03	7.99E-03	8.00E-03	8.02E-03	8.04E-03	8.05E-03	8.07E-03	8.08E-03	8.10E-03	8.11E-03	8.13E-03	8.15E-03
ethylbenzene	1.43E-05	0.00E+00	0.00E+00	3.11E-07	7.98E-06	1.36E-02	1.37E-02	1.37E-02	1.37E-02	1.38E-02	1.38E-02	1.38E-02	1.39E-02	1.39E-02	1.39E-02	1.40E-02
ethylene	2.48E-05	0.00E+00	0.00E+00	5.39E-07	8.26E-02	8.28E-02	8.30E-02	8.31E-02	8.33E-02	8.35E-02	8.36E-02	8.38E-02	8.39E-02	8.41E-02	8.43E-02	8.44E-02
formaldehyde	6.16E-06	0.00E+00	0.00E+00	1.34E-07	2.06E-02	2.06E-02	2.07E-02	2.07E-02	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02	2.09E-02	2.10E-02
hexane, n-	6.21E-06	0.00E+00	0.00E+00	1.35E-07	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02	2.09E-02	2.10E-02	2.10E-02	2.11E-02	2.11E-02	2.11E-02
isoprene, except from vegetative emission sources	5.52E-07	0.00E+00	0.00E+00	1.20E-08	1.84E-03	1.84E-03	1.85E-03	1.85E-03	1.85E-03	1.86E-03	1.86E-03	1.87E-03	1.87E-03	1.87E-03	1.88E-03	1.88E-03
methyl alcohol	4.60E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03	1.56E-03	1.56E-03	1.57E-03
methyl ethyl ketone	9.20E-08	0.00E+00	0.00E+00	2.00E-09	3.07E-04	3.07E-04	3.08E-04	3.08E-04	3.09E-04	3.10E-04	3.10E-04	3.11E-04	3.11E-04	3.12E-04	3.13E-04	3.13E-04
naphthalene	1.84E-07	0.00E+00	0.00E+00	4.00E-09	6.13E-04	6.14E-04	6.16E-04	6.17E-04	6.18E-04	6.19E-04	6.21E-04	6.22E-04	6.23E-04	6.24E-04	6.25E-04	6.27E-04
propionaldehyde	1.38E-07	0.00E+00	0.00E+00	3.00E-09	4.60E-04	4.61E-04	4.62E-04	4.63E-04	4.64E-04	4.64E-04	4.65E-04	4.66E-04	4.67E-04	4.68E-04	4.69E-04	4.70E-04
propylene	1.19E-05	0.00E+00	0.00E+00	2.59E-07	3.97E-02	3.98E-02	3.99E-02	3.99E-02	4.00E-02	4.01E-02	4.02E-02	4.03E-02	4.03E-02	4.04E-02	4.05E-02	4.06E-02
styrene	4.60E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03	1.56E-03	1.56E-03	1.57E-03
toluene	5.08E-05	0.00E+00	1.94E-06	2.24E-05	7.47E-02	7.48E-02	7.50E-02	7.51E-02	7.53E-02	7.54E-02	7.55E-02	7.57E-02	7.58E-02	7.60E-02	7.61E-02	7.63E-02
xylene (total)	3.51E-05	0.00E+00	1.12E-06	1.37E-05	6.24E-02	6.25E-02	6.26E-02	6.26E-02	6.26E-02	6.30E-02	6.31E-02	6.33E-02	6.34E-02	6.35E-02	6.36E-02	6.38E-02
aluminum	3.15E-04	1.08E-04	1.04E-05	1.09E-04	5.63E-04	2.16E-03	3.75E-03	5.34E-03	6.94E-03	8.53E-03	1.01E-02	1.17E-02	1.33E-02	1.49E-02	1.65E-02	1.81E-02
ammonium ion	6.04E-07	1.80E-07	1.77E-08	1.85E-07	1.53E-05	5.88E-05	1.02E-04	1.46E-04	1.89E-04	2.33E-04	2.76E-04	3.20E-04	3.63E-04	4.07E-04	4.50E-04	4.94E-04
antimony	6.29E-08	2.17E-08	2.06E-09	2.19E-08	3.58E-07	1.37E-06	2.36E-06	3.36E-06	4.35E-06	5.44E-06	6.44E-06	7.45E-06	8.47E-06	9.48E-06	1.05E-05	1.15E-05
arsenic	9.01E-08	2.75E-08	2.74E-09	2.80E-08	9.12E-08	3.47E-07	6.03E-07	8.59E-07	1.12E-06	1.37E-06	1.63E-06	1.88E-06	2.14E-06	2.40E-06	2.65E-06	2.91E-06
barium	6.15E-05	1.63E-05	6.46E-07	3.27E-06	1.30E-04	4.85E-04	8.39E-04	1.19E-03	1.55E-03	1.90E-03	2.26E-03	2.61E-03	2.97E-03	3.32E-03	3.68E-03	4.03E-03
bromine	1.88E-07	4.03E-08	4.25E-09	4.20E-08	2.41E-07	6.84E-07	1.13E-06	1.57E-06	2.01E-06	2.45E-06	2.90E-06	3.34E-06	3.78E-06	4.22E-06	4.67E-06	5.11E-06
cadmium	1.29E-07	4.45E-08	4.28E-09	4.49E-08	1.58E-08	6.05E-08	1.05E-07	1.50E-07	1.99E-07	2.39E-07	2.84E-07	3.29E-07	3.74E-07	4.18E-07	4.63E-07	5.08E-07
chlorine	2.12E-05	4.86E-06	4.83E-07	5.03E-06	2.12E-05	4.82E-05	7.52E-05	1.02E-04	1.29E-04	1.56E-04	1.83E-04	2.10E-04	2.37E-04	2.64E-04	2.91E-04	3.18E-04
chromium (VI)	1.09E-07	1.55E-08	2.04E-09	1.79E-08	1.46E-07	5.34E-07	9.22E-07	1.31E-06	1.70E-06	2.09E-06	2.47E-06	2.86E-06	3.25E-06	3.64E-06	4.03E-06	4.41E-06
cobalt	4.72E-07	1.54E-07	1.46E-08	1.55E-07	2.00E-07	5.38E-07	8.75E-07	1.21E-06	1.55E-06	1.89E-06	2.22E-06	2.56E-06	2.90E-06	3.24E-06	3.57E-06	3.91E-06
copper	1.29E-05	2.72E-07	1.77E-07	6.23E-07	2.73E-05	1.02E-04	1.76E-04	2.49E-04	3.22E-04	3.96E-04	4.73E-04	5.48E-04	6.22E-04	6.97E-04	7.71E-04	8.46E-04
lead	2.42E-06	8.00E-07	7.76E-08	8.10E-07	8.46E-07	3.22E-06	5.60E-06	7.97E-06	1.03E-05	1.27E-05	1.51E-05	1.75E-05	1.99E-05	2.22E-05	2.46E-05	2.70E-05
manganese	5.68E-06	1.33E-06	1.44E-07	1.39E-06	8.22E-06	3.09E-05	5.35E-05	7.61E-05	9.88E-05	1.21E-04	1.44E-04	1.67E-04	1.89E-04	2.12E-04	2.35E-04	2.57E-04
mercury	6.62E-08	2.28E-08	2.20E-09	2.30E-08	4.74E-08	1.82E-07	3.16E-07	4.50E-07	5.84E-07	7.18E-07	8.52E-07	9.87E-07	1.12E-06	1.26E-06	1.39E-06	1.52E-06
nickel	9.96E-07	9.32E-08	1.50E-08	1.14E-07	1.67E-06	6.02E-06	1.04E-05	1.47E-05	1.91E-05	2.34E-05	2.78E-05	3.21E-05	3.65E-05	4.08E-05	4.52E-05	4.95E-05
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
phosphorus	6.88E-06	2.26E-06	2.18E-07	2.29E-06	1.49E-05	5.72E-05	9.95E-05	1.42E-04	1.84E-04	2.26E-04	2.69E-04	3.11E-04	3.53E-04	3.95E-04	4.38E-04	4.80E-04
selenium	3.65E-08	3.62E-09	5.30E-10	4.49E-09	6.60E-08	2.47E-07	4.28E-07	6.10E-07	7.91E-07	9.72E-07	1.15E-06	1.33E-06	1.52E-06	1.70E-06	1.88E-06	2.06E-06
silicon	8.81E-04	2.79E-04	2.75E-05	2.83E-04	1.75E-03	6.71E-03	1.17E-02	1.67E-02	2.16E-02	2.65E-02	3.15E-02	3.64E-02	4.14E-02	4.63E-02	5.13E-02	5.62E-02
silver	3.31E-08	1.14E-08	1.10E-09	1.15E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
sulfates	7.84E-05	7.05E-06	9.82E-07	8.14E-06	1.63E-04	4.09E-04	6.56E-04	9.02E-04	1.15E-03	1.39E-03	1.64E-03	1.89E-03	2.13E-03	2.38E-03	2.63E-03	2.87E-03
thallium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.10E-08	8.07E-08	1.40E-07	2.00E-07	2.60E-07	3.19E-07	3.79E-07	4.39E-07	4.98E-07	5.58E-07	6.17E-07
vanadium	1.80E-06	3.84E-07	4.30E-08	4.07E-07	1.88E-06	7.05E-06	1.22E-05	1.74E-05	2.25E-05	2.77E-05	3.29E-05	3.81E-05	4.32E-05	4.84E-05	5.36E-05	5.87E-05
zinc	3.89E-06	7.60E-07	7.37E-08	8.27E-07	8.53E-06	3.21E-05	5.57E-05	7.93E-05	1.03E-04	1.27E-04	1.50E-04	1.74E-04	1.97E-04	2.21E-04	2.44E-04	2.68E-04
Diesel PM	1.18E-03	1.30E-04	3.00E-05	1.30E-04	7.17E-06	2.16E-05	3.61E-05	5.05E-05	6.50E-05	7.94E-05	9.39E-05	1.08E-04	1.23E-04	1.37E-04	1.52E-04	1.66E-04

[1] Residential Maximum Grid No. 484

NA = Not Available — ug/m³ = micrograms per cubic meter
NC = Not Calculated — mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-2.4
2015 OEHHA Hazard Calculation for LAX Landside Access Modernization Program, 2017 Mitigated Construction Through 2035 Operations
Worker Scenario
(Based on Peak Location of Commercial Cancer Risks[1])

Equations
Risk = Cair*DBR*EF*CF*A*ASF*ED*FAH*CPF
HQ = Cair / REL

Where: HQ = Hazard Quotient — Cair = Exposure Concentration
DBR = Daily Breathing Rate — ASF = Age sensitivity factor
EF = Fraction of Year — ED = Fraction of Averaging time
A = Absorption Fraction — FAH = Fraction of Time at Home
CF = Conversion Factor — CPF = Cancer Potency Factor

	Toxicity Criteria		Hazard Quotient to Worker													
	EPA	CalEPA	Construction										Construction and Operation			
	RfC	REL	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
TAC	(ug/m³)	(ug/m³)											
1,2,4-trimethylbenzene	7.00E+00	NA	8.20E-08	1.11E-05	1.29E-04	1.69E-05	9.57E-06	5.15E-06	2.89E-06	1.12E-03	1.13E-03	1.13E-03	1.13E-03
1,3-butadiene	2.00E+00	2.00E+00	1.61E-07	2.18E-05	2.54E-04	3.31E-05	1.88E-05	1.01E-05	5.68E-06	2.21E-03	2.21E-03	2.22E-03	2.23E-03
2,2,4-trimethylpentane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	9.00E+00	1.40E+02	1.20E-09	1.63E-07	1.89E-06	2.47E-07	1.40E-07	7.54E-08	4.23E-08	1.64E-05	1.65E-05	1.65E-05	1.65E-05
acrolein	2.00E-02	3.50E-01	2.20E-07	2.98E-05	3.46E-04	4.53E-05	2.57E-05	1.38E-05	7.76E-06	3.01E-03	3.02E-03	3.03E-03	3.04E-03
benzene	3.00E+01	3.00E+00	1.70E-06	1.42E-04	9.82E-04	1.70E-04	7.47E-05	3.81E-05	1.72E-05	6.68E-03	6.70E-03	6.72E-03	6.74E-03
cumene	4.00E+02	NA	1.75E-11	2.37E-09	2.76E-08	3.60E-09	2.04E-09	1.10E-09	6.18E-10	2.40E-07	2.40E-07	2.41E-07	2.42E-07
cyclohexane	6.00E+03	NA	6.07E-11	8.22E-09	9.55E-08	1.25E-08	7.08E-09	3.81E-09	2.14E-09	8.31E-07	8.33E-07	8.36E-07	8.38E-07
ethylbenzene	1.00E+03	2.00E+03	4.28E-10	5.04E-08	5.64E-07	1.12E-07	1.53E-07	5.16E-08	1.10E-08	4.28E-06	4.28E-06	4.29E-06	4.31E-06
ethylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	9.80E+00	9.00E+00	1.04E-07	1.41E-05	1.64E-04	2.15E-05	1.22E-05	6.55E-06	3.68E-06	1.43E-03	1.43E-03	1.44E-03	1.44E-03
hexane, n-	7.00E+02	7.00E+03	1.35E-10	1.83E-08	2.13E-07	2.78E-08	1.58E-08	8.49E-09	4.76E-09	1.85E-06	1.85E-06	1.86E-06	1.87E-06
isoprene, except from vegetative emission sources	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	2.00E+04	4.00E+03	1.75E-11	2.37E-09	2.76E-08	3.60E-09	2.04E-09	1.10E-09	6.18E-10	2.40E-07	2.40E-07	2.41E-07	2.42E-07
methyl ethyl ketone	5.00E+03	NA	2.80E-12	3.79E-10	4.41E-09	5.76E-10	3.27E-10	1.76E-10	9.88E-11	3.84E-08	3.84E-08	3.86E-08	3.87E-08
naphthalene	3.00E+00	9.00E+00	3.11E-09	4.21E-07	4.90E-06	6.40E-07	3.63E-07	1.96E-07	1.10E-07	4.26E-05	4.27E-05	4.29E-05	4.30E-05
propionaldehyde	8.00E+00	NA	2.63E-09	3.56E-07	4.13E-06	5.40E-07	3.06E-07	1.65E-07	9.26E-08	3.60E-05	3.60E-05	3.62E-05	3.63E-05
propylene	3.00E+03	3.00E+03	6.04E-10	8.18E-08	9.52E-07	1.24E-07	7.05E-08	3.80E-08	2.13E-08	8.28E-06	8.30E-06	8.32E-06	8.35E-06
styrene	1.00E+03	9.00E+02	7.78E-11	1.05E-08	1.22E-07	1.60E-08	9.08E-09	4.89E-09	2.74E-09	1.07E-06	1.07E-06	1.07E-06	1.08E-06
toluene	5.00E+03	3.00E+02	1.35E-08	1.69E-06	1.92E-05	3.23E-06	3.49E-06	1.31E-06	4.01E-07	1.56E-04	1.56E-04	1.57E-04	1.57E-04
xylene (total)	1.00E+02	7.00E+02	4.90E-09	5.89E-07	6.74E-06	1.06E-06	1.01E-06	4.03E-07	1.44E-07	5.58E-05	5.59E-05	5.61E-05	5.63E-05
aluminum	5.00E+00	NA	4.61E-05	1.67E-03	7.53E-03	2.60E-03	1.62E-03	5.18E-04	2.44E-04	4.90E-04	8.52E-04	1.29E-03	1.81E-03
ammonium ion	1.00E+02	2.00E+02	1.95E-09	7.42E-08	3.97E-07	1.24E-07	7.34E-08	2.46E-08	1.18E-08	2.32E-07	5.93E-07	8.78E-07	1.21E-06
antimony	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
arsenic	1.50E-02	1.50E-02	3.93E-06	1.48E-04	7.68E-04	2.41E-04	1.46E-04	4.88E-05	2.35E-05	3.26E-05	4.71E-05	6.95E-05	9.80E-05
barium	5.00E-01	NA	1.23E-05	1.39E-03	2.29E-02	3.91E-03	1.71E-03	8.96E-04	5.00E-04	9.75E-04	1.85E-03	2.86E-03	3.97E-03
bromine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cadmium	1.00E-02	2.00E-02	4.74E-06	1.71E-04	7.72E-04	2.67E-04	1.67E-04	5.31E-05	2.50E-05	1.89E-05	1.02E-05	9.46E-06	1.70E-05
chlorine	1.50E-01	2.00E-01	5.24E-05	2.32E-03	1.95E-02	4.05E-03	2.34E-03	8.71E-04	4.49E-04	5.61E-04	4.84E-04	5.68E-04	7.43E-04
chromium (VI)	1.00E-01	2.00E-01	1.80E-07	9.24E-06	8.84E-05	1.92E-05	9.99E-06	4.19E-06	2.19E-06	3.26E-06	5.18E-06	7.93E-06	1.10E-05
cobalt	6.00E-03	NA	5.47E-05	2.04E-03	9.68E-03	3.18E-03	1.99E-03	6.55E-04	3.13E-04	2.98E-04	2.16E-04	2.35E-04	3.52E-04
copper	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
lead	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
manganese	5.00E-02	9.00E-02	3.24E-05	1.34E-03	9.01E-03	2.40E-03	1.37E-03	5.00E-04	2.49E-04	4.11E-04	6.74E-04	1.02E-03	1.40E-03
mercury	3.00E-01	3.00E-02	1.62E-06	5.86E-05	2.64E-04	9.12E-05	5.70E-05	1.82E-05	8.56E-06	1.03E-05	1.29E-05	1.82E-05	2.63E-05
nickel	9.00E-02	1.40E-02	1.66E-05	1.04E-03	1.23E-02	2.41E-03	1.18E-03	5.37E-04	2.89E-04	4.88E-04	8.22E-04	1.27E-03	1.74E-03
non-phosphate phosphorous	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
phosphorus	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
selenium	2.00E+01	2.00E+01	4.55E-10	2.77E-08	3.20E-07	6.58E-08	3.10E-08	1.39E-08	7.36E-09	1.32E-08	2.36E-08	3.89E-08	5.10E-08
silicon	3.00E+00	3.00E+00	1.96E-04	7.41E-03	3.68E-02	1.19E-02	7.27E-03	2.36E-03	1.14E-03	2.44E-03	4.38E-03	6.69E-03	9.34E-03
silver	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
sulfates	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
thallium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
vanadium	1.00E-01	NA	8.51E-06	3.65E-04	2.65E-03	6.73E-04	3.77E-04	1.41E-04	7.13E-05	9.52E-05	1.40E-04	2.11E-04	2.98E-04
zinc	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Diesel PM	5.00E+00	5.00E+00	3.20E-05	1.66E-03	1.84E-02	5.30E-03	1.60E-03	6.48E-04	3.22E-04	1.63E-04	3.42E-05	2.13E-05	4.63E-05
			TOTAL	0.0005	0.02	0.14	0.04	0.02	0.007	0.004	0.02	0.02	0.03	0.03

NA = Not Available — ug/m³ = micrograms per cubic meter
NC = Not Calculated — mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-3.1A
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program ,2024 With Project vs. 2024 Without Project Operations with 2024-2027 Unmitigated Construction - Lifetime Exposure, 30-Year Adult Resident Scenario
(Based on Peak Location of Residential Cancer Risks[1])

Equations
Risk = Cair*DBR*EF*CF*A*ASF*ED*FAH*CPF
HQ = Cair / REL

Where: HQ = Hazard Qudient — Cair = Exposure Concentration
DBR = Daily Breathing Rate — ASF = Age sensitivity factor
EF = Fraction of Year — ED = Fraction of Averaging time
A = Absorption Fraction — FAH = Fraction of Time at Home
CF = Conversion Factor — CPF = Cancer Potency Factor

	Toxicity Criteria		Cancer Risk to Adult 30-Year Resident																TOTAL
	EPA Inhalation CPF	CalEPA Inhalation CPF	Construction by Year				Operation by Year											Ops	Cancer Risk
			2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035 - 2053	to Resident for
TAC	(mg/kg-day)[-1]	(mg/kg-day)[-1]																	Max Location
1,2,4-trimethylbenzene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	1.05E-01	6.00E-01	2.05E-10	0.00E+00	0.00E+00	8.45E-13	6.84E-07	6.33E-07	1.30E-07	1.30E-07	1.31E-07	1.31E-07	1.31E-07	1.31E-07	1.32E-07	1.32E-07	1.33E-07	8.65E-07	3.36E-06
2,2,4-trimethylpentane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	7.70E-03	1.00E-02	1.78E-12	0.00E+00	0.00E+00	7.38E-15	5.95E-09	5.50E-09	1.13E-09	1.13E-09	1.14E-09	1.14E-09	1.14E-09	1.14E-09	1.15E-09	1.15E-09	1.15E-09	7.52E-09	2.92E-08
acrolein	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
benzene	2.73E-02	1.00E-01	1.55E-10	0.00E+00	0.00E+00	6.40E-13	5.18E-07	4.79E-07	9.85E-08	9.87E-08	9.89E-08	9.91E-08	9.93E-08	9.95E-08	9.97E-08	9.98E-08	1.00E-07	6.55E-07	2.55E-06
cumene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cyclohexane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	8.75E-03	8.70E-03	2.01E-11	0.00E+00	1.85E-13	2.12E-12	1.92E-08	1.78E-08	3.65E-09	3.66E-09	3.66E-09	3.67E-09	3.68E-09	3.68E-09	3.69E-09	3.70E-09	3.71E-09	2.43E-08	9.43E-08
ethylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	4.55E-02	2.10E-02	2.09E-11	0.00E+00	0.00E+00	8.62E-14	6.98E-08	6.45E-08	1.32E-08	1.32E-08	1.33E-08	1.33E-08	1.34E-08	1.34E-08	1.34E-08	1.34E-08	1.35E-08	8.82E-08	3.43E-07
hexane, n-	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
isoprene, except from vegetative emission sources	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
naphthalene	1.19E-01	1.20E-01	3.57E-12	0.00E+00	0.00E+00	1.47E-14	1.19E-08	1.10E-08	2.28E-09	2.27E-09	2.27E-09	2.28E-09	2.28E-09	2.28E-09	2.29E-09	2.29E-09	2.30E-09	1.50E-08	5.85E-08
propionaldehyde	NA	NA	NC	NC	NC	NC	NC	N

Table 1-3.1C
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project Operations with 2024-2027 Unmitigated Construction - Lifetime Exposure, Child Resident Scenario
(Based on Peak Location of Residential Cancer Risk[1])

Exposure Parameters	3rd Trimester	Ages 0<2	Ages 2<9		Start Age	End Age
Daily Breathing Rate (DBR)	361 L/kg-d	1090 L/kg-d	861 L/kg-d	Child Resident	0	9 Year
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless	School Child	7	18 Year
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless	30-year Resident	0	30 Year
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	70-year Resident	0	70 Year
Age-adjustment (ASF)	10 unitless	10 unitless	3 unitless			
Fraction of Averaging Time (ED)	0.00357 unitless	0.01429 unitless	0.01429 unitless			
Fraction of Time at Home (FAH)	1.00 unitless	1.00 unitless	1.00 unitless			

	Concentration at Location w/Maximum Risk (ug/m^3)												
	Construction by Year				Operation by Year								
TAC	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032
1,2,4-trimethylbenzene	3.77E-06	0.00E+00	0.00E+00	8.20E-08	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.27E-02	1.27E-02	1.27E-02	1.27E-02	1.28E-02
1,3-butadiene	2.12E-06	0.00E+00	0.00E+00	4.60E-08	7.05E-03	7.07E-03	7.08E-03	7.09E-03	7.11E-03	7.12E-03	7.14E-03	7.15E-03	7.16E-03
2,2,4-trimethylpentane	8.97E-06	0.00E+00	0.00E+00	1.95E-07	2.99E-02	3.00E-02	3.00E-02	3.01E-02	3.01E-02	3.02E-02	3.03E-02	3.03E-02	3.04E-02
acetaldehyde	1.10E-06	0.00E+00	0.00E+00	2.40E-08	3.68E-03	3.69E-03	3.70E-03	3.71E-03	3.72E-03	3.72E-03	3.73E-03	3.74E-03	3.74E-03
acrolein	5.06E-07	0.00E+00	0.00E+00	1.10E-08	1.69E-03	1.69E-03	1.70E-03	1.70E-03	1.71E-03	1.71E-03	1.72E-03	1.72E-03	1.72E-03
benzene	6.61E-06	0.00E+00	0.00E+00	5.22E-08	2.19E-03	2.19E-03	2.20E-03	2.20E-03	2.21E-03	2.21E-03	2.22E-03	2.22E-03	2.22E-03
cumene	4.60E-08	0.00E+00	0.00E+00	1.00E-09	1.53E-04	1.54E-04	1.54E-04	1.54E-04	1.55E-04	1.55E-04	1.55E-04	1.56E-04	1.56E-04
cyclohexane	2.39E-06	0.00E+00	0.00E+00	5.20E-08	7.97E-03	7.99E-03	8.00E-03	8.02E-03	8.04E-03	8.05E-03	8.07E-03	8.08E-03	8.10E-03
ethylbenzene	1.43E-05	0.00E+00	0.00E+00	6.96E-07	7.98E-06	1.36E-02	1.37E-02	1.37E-02	1.37E-02	1.38E-02	1.38E-02	1.38E-02	1.39E-02
ethylene	2.48E-05	0.00E+00	0.00E+00	5.39E-07	8.26E-02	8.28E-02	8.30E-02	8.31E-02	8.33E-02	8.35E-02	8.36E-02	8.38E-02	8.39E-02
formaldehyde	6.16E-06	0.00E+00	0.00E+00	1.34E-07	2.05E-02	2.06E-02	2.06E-02	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02
hexane, n-isoprene, except from vegetative emission sources	6.21E-06	0.00E+00	0.00E+00	1.35E-07	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02	2.09E-02	2.10E-02	2.10E-02
methyl alcohol	5.52E-07	0.00E+00	0.00E+00	1.20E-08	1.84E-03	1.84E-03	1.85E-03	1.85E-03	1.86E-03	1.86E-03	1.87E-03	1.87E-03	1.87E-03
methyl ethyl ketone	4.60E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03
naphthalene	9.20E-08	0.00E+00	0.00E+00	2.00E-09	3.07E-04	3.07E-04	3.08E-04	3.08E-04	3.09E-04	3.10E-04	3.10E-04	3.11E-04	3.11E-04
propionaldehyde	1.38E-07	0.00E+00	0.00E+00	3.00E-09	4.60E-04	4.61E-04	4.62E-04	4.63E-04	4.64E-04	4.64E-04	4.65E-04	4.66E-04	4.67E-04
propylene	1.19E-05	0.00E+00	0.00E+00	2.59E-07	3.97E-02	3.98E-02	3.99E-02	3.99E-02	4.00E-02	4.01E-02	4.02E-02	4.03E-02	4.03E-02
styrene	4.60E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03
toluene	5.08E-05	0.00E+00	1.94E-06	2.24E-05	7.47E-02	7.48E-02	7.50E-02	7.51E-02	7.53E-02	7.54E-02	7.55E-02	7.57E-02	7.58E-02
xylene (total)	3.51E-05	0.00E+00	1.12E-06	1.31E-05	6.24E-02	6.25E-02	6.26E-02	6.28E-02	6.29E-02	6.30E-02	6.31E-02	6.33E-02	6.34E-02
aluminum	3.15E-04	1.08E-04	1.04E-05	1.09E-04	5.63E-04	2.16E-03	3.75E-03	5.34E-03	6.94E-03	8.53E-03	1.01E-02	1.17E-02	1.33E-02
ammonium ion	6.04E-07	1.80E-07	1.77E-08	1.85E-07	1.53E-05	5.88E-05	1.02E-04	1.46E-04	1.89E-04	2.33E-04	2.76E-04	3.20E-04	3.63E-04
antimony	6.29E-08	2.17E-08	2.09E-09	2.19E-08	3.58E-07	1.37E-06	2.39E-06	3.40E-06	4.41E-06	5.43E-06	6.44E-06	7.45E-06	8.47E-06
arsenic	9.01E-08	2.75E-08	2.74E-09	2.80E-08	9.12E-08	3.47E-07	6.03E-07	8.59E-07	1.11E-06	1.37E-06	1.63E-06	1.88E-06	2.14E-06
barium	6.15E-05	1.63E-06	6.49E-07	3.27E-06	1.30E-04	4.85E-04	8.39E-04	1.19E-03	1.55E-03	1.90E-03	2.26E-03	2.61E-03	2.97E-03
bromine	1.88E-07	4.03E-08	4.25E-09	4.20E-08	2.41E-07	6.84E-07	1.13E-06	1.57E-06	2.01E-06	2.45E-06	2.90E-06	3.34E-06	3.78E-06
cadmium	1.29E-07	4.45E-08	4.29E-09	4.49E-08	1.58E-08	6.05E-08	1.05E-07	1.50E-07	1.95E-07	2.39E-07	2.84E-07	3.29E-07	3.74E-07
chlorine	2.12E-05	4.86E-06	4.83E-07	5.03E-06	2.12E-05	4.82E-05	7.52E-05	1.02E-04	1.29E-04	1.56E-04	1.83E-04	2.10E-04	2.37E-04
chromium (VI)	1.09E-07	1.55E-08	2.04E-09	1.75E-08	1.46E-07	5.34E-07	9.22E-07	1.31E-06	1.70E-06	2.09E-06	2.47E-06	2.86E-06	3.25E-06
cobalt	4.72E-07	1.54E-07	1.49E-08	1.55E-07	2.00E-07	5.38E-07	8.75E-07	1.21E-06	1.55E-06	1.88E-06	2.22E-06	2.56E-06	2.90E-06
copper	1.29E-05	2.72E-07	1.30E-07	6.23E-07	2.73E-05	1.02E-04	1.76E-04	2.50E-04	3.25E-04	3.99E-04	4.73E-04	5.48E-04	6.22E-04
lead	2.42E-06	8.00E-07	7.76E-08	8.10E-07	8.46E-07	3.22E-06	5.60E-06	7.97E-06	1.03E-05	1.27E-05	1.51E-05	1.75E-05	1.99E-05
manganese	5.68E-06	1.33E-06	1.44E-07	1.39E-06	8.22E-06	3.09E-05	5.35E-05	7.61E-05	9.88E-05	1.21E-04	1.44E-04	1.67E-04	1.89E-04
mercury	6.62E-08	2.28E-08	2.20E-09	2.30E-08	4.74E-08	1.82E-07	3.16E-07	4.50E-07	5.84E-07	7.18E-07	8.52E-07	9.87E-07	1.12E-06
nickel	9.96E-07	9.32E-08	1.50E-08	1.14E-07	1.67E-06	6.02E-06	1.04E-05	1.47E-05	1.91E-05	2.34E-05	2.78E-05	3.21E-05	3.65E-05
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
phosphorus	6.88E-06	2.26E-06	2.18E-07	2.29E-06	1.49E-05	5.72E-05	9.95E-05	1.42E-04	1.84E-04	2.26E-04	2.69E-04	3.11E-04	3.53E-04
selenium	3.65E-08	3.62E-09	5.30E-10	4.45E-09	6.60E-08	2.47E-07	4.29E-07	6.10E-07	7.91E-07	9.72E-07	1.15E-06	1.33E-06	1.52E-06
silicon	8.81E-04	2.79E-04	2.75E-05	2.83E-04	1.75E-03	6.71E-03	1.17E-02	1.66E-02	2.16E-02	2.65E-02	3.15E-02	3.64E-02	4.14E-02
silver	3.31E-08	1.14E-08	1.10E-09	1.15E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
sulfates	7.84E-05	7.05E-06	9.82E-07	8.14E-06	1.63E-04	4.09E-04	6.56E-04	9.02E-04	1.15E-03	1.39E-03	1.64E-03	1.89E-03	2.13E-03
thallium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.10E-08	8.07E-08	1.40E-07	2.00E-07	2.60E-07	3.19E-07	3.79E-07	4.39E-07	4.98E-07
vanadium	1.80E-06	3.84E-07	4.30E-08	4.07E-07	1.88E-06	7.05E-06	1.22E-05	1.74E-05	2.25E-05	2.77E-05	3.29E-05	3.81E-05	4.32E-05
zinc	3.89E-06	7.60E-07	7.57E-08	8.27E-07	8.53E-06	3.21E-05	5.57E-05	7.93E-05	1.03E-04	1.27E-04	1.50E-04	1.74E-04	1.97E-04
Diesel PM	1.18E-03	1.30E-04	3.00E-05	1.30E-04	7.17E-06	2.16E-05	3.61E-05	5.05E-05	6.50E-05	7.94E-05	9.39E-05	1.08E-04	1.23E-04

[1] Residential Maximum Grid No. 484

NA = Not Available
NC = Not Calculated

ug/m^3 = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-3.1B
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project Operations with 2024-2027 Unmitigated Construction - Lifetime Exposure, 70-Year Adult Resident Scenario
(Based on Peak Location of Residential Cancer Risk[1])

Exposure Parameters	3rd Trimester	Ages 0<2	Ages 2<9	Ages 2<16	Ages 16<30	Ages 16<70
Daily Breathing Rate (DBR)	361 L/kg-d	1090 L/kg-d	861 L/kg-d	745 L/kg-d	335 L/kg-d	290 L/kg-d
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L
Age-adjustment (ASF)	10 unitless	10 unitless	3 unitless	3 unitless	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.00357 unitless	0.01429 unitless	0.01429 unitless	0.01429 unitless	0.2 unitless	0.771 unitless
Fraction of Time at Home (FAH)	1.00 unitless	1.00 unitless	1.00 unitless	1 unitless	0.73 unitless	0.73 unitless

	Start Age	End Age
Child Resident	0	9 Year
School Child	7	18 Year
30-year Resident	0	30 Year
70-year Resident	0	70 Year

	Concentration at Location w/Maximum Risk (ug/m^3)																	
	Construction by Year				Operation by Year													
TAC	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035		
1,2,4-trimethylbenzene	3.77E-06	0.00E+00	0.00E+00	8.20E-08	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.27E-02	1.27E-02	1.27E-02	1.27E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02		
1,3-butadiene	2.12E-06	0.00E+00	0.00E+00	4.60E-08	7.05E-03	7.07E-03	7.08E-03	7.09E-03	7.11E-03	7.12E-03	7.14E-03	7.15E-03	7.16E-03	7.18E-03	7.19E-03	7.21E-03		
2,2,4-trimethylpentane	8.97E-06	0.00E+00	0.00E+00	1.95E-07	2.99E-02	3.00E-02	3.00E-02	3.01E-02	3.01E-02	3.02E-02	3.03E-02	3.03E-02	3.04E-02	3.04E-02	3.05E-02	3.06E-02		
acetaldehyde	1.10E-06	0.00E+00	0.00E+00	2.40E-08	3.68E-03	3.69E-03	3.69E-03	3.70E-03	3.71E-03	3.72E-03	3.72E-03	3.73E-03	3.74E-03	3.74E-03	3.75E-03	3.76E-03		
acrolein	5.06E-07	0.00E+00	0.00E+00	1.10E-08	1.69E-03	1.69E-03	1.70E-03	1.70E-03	1.71E-03	1.71E-03	1.71E-03	1.72E-03	1.72E-03	1.72E-03	1.72E-03	1.72E-03		
benzene	6.61E-06	0.00E+00	0.00E+00	5.22E-08	2.19E-03	2.19E-03	2.20E-03	2.20E-03	2.21E-03	2.21E-03	2.22E-03	2.22E-03	2.22E-03	2.23E-03	2.23E-03	2.23E-03		
cumene	4.60E-08	0.00E+00	0.00E+00	1.00E-09	1.53E-04	1.54E-04	1.54E-04	1.54E-04	1.55E-04	1.55E-04	1.55E-04	1.55E-04	1.56E-04	1.56E-04	1.56E-04	1.57E-04		
cyclohexane	2.39E-06	0.00E+00	0.00E+00	5.20E-08	7.97E-03	7.99E-03	8.00E-03	8.02E-03	8.04E-03	8.05E-03	8.07E-03	8.08E-03	8.10E-03	8.11E-03	8.13E-03	8.15E-03		
ethylbenzene	1.43E-05	0.00E+00	0.00E+00	6.96E-07	7.98E-06	1.36E-02	1.37E-02	1.37E-02	1.37E-02	1.38E-02	1.38E-02	1.38E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02		
ethylene	2.48E-05	0.00E+00	0.00E+00	5.39E-07	8.26E-02	8.28E-02	8.30E-02	8.31E-02	8.33E-02	8.35E-02	8.36E-02	8.38E-02	8.39E-02	8.41E-02	8.43E-02	8.44E-02		
formaldehyde	6.16E-06	0.00E+00	0.00E+00	1.34E-07	2.05E-02	2.06E-02	2.06E-02	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02	2.09E-02	2.10E-02	2.10E-02		
hexane, n-isoprene, except from vegetative emission sources	6.21E-06	0.00E+00	0.00E+00	1.35E-07	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02	2.09E-02	2.10E-02	2.10E-02	2.11E-02	2.11E-02	2.11E-02		
methyl alcohol	5.52E-07	0.00E+00	0.00E+00	1.20E-08	1.84E-03	1.84E-03	1.85E-03	1.85E-03	1.86E-03	1.86E-03	1.87E-03	1.87E-03	1.87E-03	1.88E-03	1.88E-03	1.88E-03		
methyl ethyl ketone	4.60E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03	1.56E-03	1.56E-03	1.57E-03		
naphthalene	9.20E-08	0.00E+00	0.00E+00	2.00E-09	3.07E-04	3.07E-04	3.08E-04	3.08E-04	3.09E-04	3.10E-04	3.10E-04	3.11E-04	3.11E-04	3.12E-04	3.13E-04	3.13E-04		
propionaldehyde	1.38E-07	0.00E+00	0.00E+00	3.00E-09	4.60E-04	4.61E-04	4.62E-04	4.63E-04	4.64E-04	4.64E-04	4.65E-04	4.66E-04	4.67E-04	4.68E-04	4.69E-04	4.70E-04		
propylene	1.19E-05	0.00E+00	0.00E+00	2.59E-07	3.97E-02	3.98E-02	3.99E-02	3.99E-02	4.00E-02	4.01E-02	4.02E-02	4.03E-02	4.03E-02	4.04E-02	4.05E-02	4.06E-02		
styrene	4.60E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03	1.56E-03	1.56E-03	1.57E-03		
toluene	5.08E-05	0.00E+00	1.94E-06	2.24E-05	7.47E-02	7.48E-02	7.50E-02	7.51E-02	7.53E-02	7.54E-02	7.55E-02	7.57E-02	7.58E-02	7.60E-02	7.61E-02	7.63E-02		
xylene (total)	3.51E-05	0.00E+00	1.12E-06	1.31E-05	6.24E-02	6.25E-02	6.26E-02	6.28E-02	6.29E-02	6.30E-02	6.31E-02	6.33E-02	6.34E-02	6.35E-02	6.36E-02	6.38E-02		
aluminum	3.15E-04	1.08E-04	1.04E-05	1.09E-04	5.63E-04	2.16E-03	3.75E-03	5.34E-03	6.94E-03	8.53E-03	1.01E-02	1.17E-02	1.33E-02	1.49E-02	1.65E-02	1.81E-02		
ammonium ion	6.04E-07	1.80E-07	1.77E-08	1.85E-07	1.53E-05	5.88E-05	1.02E-04	1.46E-04	1.89E-04	2.33E-04	2.76E-04	3.20E-04	3.63E-04	4.07E-04	4.50E-04	4.94E-04		
antimony	6.29E-08	2.17E-08	2.09E-09	2.19E-08	3.58E-07	1.37E-06	2.39E-06	3.40E-06	4.41E-06	5.43E-06	6.44E-06	7.45E-06	8.47E-06	9.48E-06	1.05E-05	1.15E-05		
arsenic	9.01E-08	2.75E-08	2.74E-09	2.80E-08	9.12E-08	3.47E-07	6.03E-07	8.59E-07	1.11E-06	1.37E-06	1.63E-06	1.88E-06	2.14E-06	2.40E-06	2.65E-06	2.91E-06		
barium	6.15E-05	1.63E-06	6.49E-07	3.27E-06	1.30E-04	4.85E-04	8.39E-04	1.19E-03	1.55E-03	1.90E-03	2.26E-03	2.61E-03	2.97E-03	3.32E-03	3.68E-03	4.03E-03		
bromine	1.88E-07	4.03E-08	4.25E-09	4.20E-08	2.41E-07	6.84E-07	1.13E-06	1.57E-06	2.01E-06	2.45E-06	2.90E-06	3.34E-06	3.78E-06	4.22E-06	4.67E-06	5.11E-06		
cadmium	1.29E-07	4.45E-08	4.29E-09	4.49E-08	1.58E-08	6.05E-08	1.05E-07	1.50E-07	1.95E-07	2.39E-07	2.84E-07	3.29E-07	3.74E-07	4.18E-07	4.63E-07	5.08E-07		
chlorine	2.12E-05	4.86E-06	4.83E-07	5.03E-06	2.12E-05	4.82E-05	7.52E-05	1.02E-04	1.29E-04	1.56E-04	1.83E-04	2.10E-04	2.37E-04	2.64E-04	2.91E-04	3.18E-04		
chromium (VI)	1.09E-07	1.55E-08	2.04E-09	1.75E-08	1.46E-07	5.34E-07	9.22E-07	1.31E-06	1.70E-06	2.09E-06	2.47E-06	2.86E-06	3.25E-06	3.64E-06	4.03E-06	4.41E-06		
cobalt	4.72E-07	1.54E-07	1.49E-08	1.55E-07	2.00E-07	5.38E-07	8.75E-07	1.21E-06	1.55E-06	1.88E-06	2.22E-06	2.56E-06	2.90E-06	3.24E-06	3.57E-06	3.91E-06		
copper	1.29E-05	2.72E-07	1.30E-07	6.23E-07	2.73E-05	1.02E-04	1.76E-04	2.50E-04	3.25E-04	3.99E-04	4.73E-04	5.48E-04	6.22E-04	6.97E-04	7.71E-04	8.45E-04		
lead	2.42E-06	8.00E-07	7.76E-08	8.10E-07	8.46E-07	3.22E-06	5.60E-06	7.97E-06	1.03E-05	1.27E-05	1.51E-05	1.75E-05	1.99E-05	2.22E-05	2.46E-05	2.70E-05		
manganese	5.68E-06	1.33E-06	1.44E-07	1.39E-06	8.22E-06	3.09E-05	5.35E-05	7.61E-05	9.88E-05	1.21E-04	1.44E-04	1.67E-04	1.89E-04	2.12E-04	2.35E-04	2.57E-04		
mercury	6.62E-08	2.28E-08	2.20E-09	2.30E-08	4.74E-08	1.82E-07	3.16E-07	4.50E-07	5.84E-07	7.18E-07	8.52E-07	9.87E-07	1.12E-06	1.26E-06	1.39E-06	1.52E-06		
nickel	9.96E-07	9.32E-08	1.50E-08	1.14E-07	1.67E-06	6.02E-06	1.04E-05	1.47E-05	1.91E-05	2.34E-05	2.78E-05	3.21E-05	3.65E-05	4.08E-05	4.52E-05	4.95E-05		
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
phosphorus	6.88E-06	2.26E-06	2.18E-07	2.29E-06	1.49E-05	5.72E-05	9.95E-05	1.42E-04	1.84E-04	2.26E-04	2.69E-04	3.11E-04	3.53E-04	3.95E-04	4.38E-04	4.80E-04		
selenium	3.65E-08	3.62E-09	5.30E-10	4.45E-09	6.60E-08	2.47E-07	4.29E-07	6.10E-07	7.91E-07	9.72E-07	1.15E-06	1.33E-06	1.52E-06	1.70E-06	1.88E-06	2.06E-06		
silicon	8.81E-04	2.79E-04	2.75E-05	2.83E-04	1.75E-03	6.71E-03	1.17E-02	1.66E-02	2.16E-02	2.65E-02	3.15E-02	3.64E-02	4.14E-02	4.63E-02	5.13E-02	5.62E-02		
silver	3.31E-08	1.14E-08	1.10E-09	1.15E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
sulfates	7.84E-05	7.05E-06	9.82E-07	8.14E-06	1.63E-04	4.09E-04	6.56E-04	9.02E-04	1.15E-03	1.39E-03	1.64E-03	1.89E-03	2.13E-03	2.38E-03	2.63E-03	2.87E-03		
thallium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.10E-08	8.07E-08	1.40E-07	2.00E-07	2.60E-07	3.19E-07	3.79E-07	4.39E-07	4.98E-07	5.58E-07	6.17E-07	6.77E-07		
vanadium	1.80E-06	3.84E-07	4.30E-08	4.07E-07	1.88E-06	7.05E-06	1.22E-05	1.74E-05	2.25E-05	2.77E-05	3.29E-05	3.81E-05	4.32E-05	4.84E-05	5.36E-05	5.87E-05		
zinc	3.89E-06	7.60E-07	7.57E-08	8.27E-07	8.53E-06	3.21E-05	5.57E-05	7.93E-05	1.03E-04	1.27E-04	1.50E-04	1.74E-04	1.97E-04	2.21E-04	2.45E-04	2.68E-04		
Diesel PM	1.18E-03	1.30E-04	3.00E-05	1.30E-04	7.17E-06	2.16E-05	3.61E-05	5.05E-05	6.50E-05	7.94E-05	9.39E-05	1.08E-04	1.23E-04	1.37E-04	1.52E-04	1.66E-04		

[1] Residential Maximum Grid No. 484

NA = Not Available
NC = Not Calculated

ug/m^3 = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-3.1C
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project Operations with 2024-2027 Unmitigated Construction - Lifetime Exposure, Child Resident Scenario
(Based on Peak Location of Residential Cancer Risk[1])

Equations
Risk = Cair*DBR*EF*CF*A*ASF*ED*FAH*CPF
HQ = Cair / REL
Where: HQ = Hazard Quotient; Cair = Exposure Concentration; DBR = Daily Breathing Rate; ASF = Age sensitivity factor; EF = Fraction of Year; ED = Fraction of Averaging time; A = Absorption Fraction; FAH = Fraction of Time at Home; CF = Conversion Factor; CPF = Cancer Potency Factor

	Toxicity Criteria		Cancer Risk to Child Resident											2024-2029	2024-2032
	EPA Inhalation CPF	CalEPA Inhalation CPF	Construction by Year				Operation by Year							TOTAL Cancer Risk	TOTAL Cancer Risk
TAC	(mg/kg-day)$^{-1}$	(mg/kg-day)$^{-1}$	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	6-yr Child Resid. for Max Location	9-yr Child Resid. for Max Location
1,2,4-trimethylbenzene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	1.00E-01	6.00E-01	2.05E-10	0.00E+00	0.00E+00	9.77E-13	6.84E-07	6.33E-07	1.50E-07	1.51E-07	1.51E-07	1.51E-07	1.51E-07	1.52E-07	1.52E-07	1.92E-06	2.38E-06
2,2,4-trimethylpentane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	7.70E-03	1.00E-02	1.78E-12	0.00E+00	0.00E+00	8.49E-15	5.95E-09	5.50E-09	1.31E-09	1.31E-09	1.31E-09	1.31E-09	1.32E-09	1.32E-09	1.32E-09	1.67E-08	2.07E-08
acrolein	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
benzene	2.73E-02	1.00E-01	1.55E-10	0.00E+00	0.00E+00	7.40E-13	5.18E-07	4.79E-07	1.14E-07	1.14E-07	1.14E-07	1.14E-07	1.15E-07	1.15E-07	1.15E-07	1.45E-06	1.80E-06
cumene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Table 1-3.2
2015 OEHHA Hazard Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project Operations
with 2024-2027 Unmitigated Construction - Lifetime Exposure, Residential Scenario
(Based on Peak Location of Residential Hazards[1])

Exposure Parameters	3rd Trimester	Ages 0<2	Ages 2<9	Ages 2<16	Ages 16<30	Ages 16<70		Start Age
Daily Breathing Rate (DBR)	361 L/kg-d	1090 L/kg-d	861 L/kg-d	745 L/kg-d	335 L/kg-d	290 L/kg-d	Child Resident	0
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	School Child	7
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless	30-year Resident	0
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	70-year Resident	0
Age-adjustment (ASF)	10 unitless	10 unitless	3 unitless	3 unitless	1 unitless	1 unitless		
Fraction of Averaging Time (ED)	0.00357 unitless	0.01429 unitless	0.01429 unitless	0.014286 unitless	0.2 unitless	0.771 unitless		
Fraction of Time at Home (FAH)	1.00 unitless	1.00 unitless	1.00 unitless	1 unitless	0.73 unitless	0.73 unitless		
School Child 8-hr Daily Breathing Rate (DBR)			640 L/kg-d	520 L/kg-d	240 L/kg-d			
School Child Fraction of Time at Home (FAH)			1 unitless	1 unitless	1 unitless			

	Concentration at Location w/Maximum Risk (ug/m^3)															Toxicity Criteria	
	Construction by Year							Operation by Year								EPA	CalEPA
	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	RIC
TAC																	(ug/m^3)
1,2,4-trimethylbenzene	3.77E-06	0.00E+00	0.00E+00	8.20E-08	1.26E-02	1.26E-02	1.26E-02	1.27E-02	1.27E-02	1.27E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	7.00E+00	NA
1,3-butadiene	2.12E-06	0.00E+00	0.00E+00	4.60E-08	7.05E-03	7.07E-03	7.08E-03	7.09E-03	7.11E-03	7.12E-03	7.14E-03	7.15E-03	7.16E-03	7.18E-03	7.19E-03	7.21E-03	2.00E+00
2,2,4-trimethylpentane	8.97E-06	0.00E+00	0.00E+00	1.95E-07	2.99E-02	3.00E-02	3.00E-02	3.01E-02	3.01E-02	3.02E-02	3.03E-02	3.03E-02	3.04E-02	3.04E-02	3.05E-02	3.05E-02	NA
acetaldehyde	1.10E-06	0.00E+00	0.00E+00	2.40E-08	3.68E-03	3.69E-03	3.70E-03	3.71E-03	3.72E-03	3.72E-03	3.73E-03	3.74E-03	3.74E-03	3.75E-03	3.76E-03	9.00E+00	1.40E+02
acrolein	5.06E-07	0.00E+00	0.00E+00	1.10E-08	1.69E-03	1.69E-03	1.69E-03	1.70E-03	1.70E-03	1.70E-03	1.71E-03	1.71E-03	1.71E-03	1.72E-03	1.72E-03	2.00E-02	3.50E-01
benzene	9.61E-06	0.00E+00	0.00E+00	2.09E-07	3.20E-02	3.21E-02	3.22E-02	3.22E-02	3.23E-02	3.24E-02	3.24E-02	3.25E-02	3.25E-02	3.26E-02	3.27E-02	3.27E-02	3.00E+01
cumene	4.60E-08	0.00E+00	0.00E+00	1.00E-09	1.53E-04	1.54E-04	1.54E-04	1.54E-04	1.55E-04	1.55E-04	1.56E-04	1.56E-04	1.56E-04	1.56E-04	1.57E-04	4.00E+02	NA
cyclohexane	2.39E-06	0.00E+00	0.00E+00	5.20E-08	7.97E-03	7.99E-03	8.00E-03	8.02E-03	8.04E-03	8.05E-03	8.07E-03	8.08E-03	8.10E-03	8.11E-03	8.13E-03	8.15E-03	6.00E+03
ethylbenzene	1.43E-05	0.00E+00	6.98E-07	7.98E-06	1.36E-02	1.37E-02	1.37E-02	1.37E-02	1.38E-02	1.38E-02	1.38E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02	2.00E+03
ethylene	2.48E-05	0.00E+00	0.00E+00	5.39E-07	8.26E-02	8.28E-02	8.30E-02	8.31E-02	8.33E-02	8.35E-02	8.36E-02	8.38E-02	8.41E-02	8.43E-02	8.44E-02	NA	NA
formaldehyde	6.16E-06	0.00E+00	0.00E+00	1.34E-07	2.05E-02	2.06E-02	2.06E-02	2.07E-02	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02	2.09E-02	2.10E-02	9.80E+00	9.00E+00
hexane, n- isoprene, except from vegetative	6.21E-06	0.00E+00	0.00E+00	1.35E-07	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02	2.09E-02	2.10E-02	2.11E-02	2.11E-02	2.11E-02	2.12E-02	7.00E+02	7.00E+03
emission sources	5.52E-07	0.00E+00	0.00E+00	1.20E-08	1.84E-03	1.84E-03	1.85E-03	1.85E-03	1.86E-03	1.86E-03	1.87E-03	1.87E-03	1.87E-03	1.88E-03	1.88E-03	NA	NA
methyl alcohol	4.60E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03	1.56E-03	1.56E-03	1.57E-03	1.57E-03	2.00E+04	4.00E+03
methyl ethyl ketone	9.20E-08	0.00E+00	0.00E+00	2.00E-09	3.07E-04	3.07E-04	3.08E-04	3.08E-04	3.09E-04	3.10E-04	3.11E-04	3.11E-04	3.12E-04	3.13E-04	3.13E-04	5.00E+03	NA
naphthalene	1.84E-07	0.00E+00	0.00E+00	4.00E-09	6.13E-04	6.14E-04	6.16E-04	6.17E-04	6.18E-04	6.19E-04	6.21E-04	6.22E-04	6.23E-04	6.24E-04	6.25E-04	6.27E-04	3.00E+00	9.00E+00
propionaldehyde	1.38E-07	0.00E+00	0.00E+00	3.00E-09	4.60E-04	4.61E-04	4.62E-04	4.63E-04	4.64E-04	4.64E-04	4.65E-04	4.66E-04	4.67E-04	4.68E-04	4.69E-04	4.70E-04	8.00E+00	NA
propylene	1.19E-05	0.00E+00	0.00E+00	2.59E-07	3.97E-02	3.98E-02	3.99E-02	4.00E-02	4.01E-02	4.02E-02	4.03E-02	4.03E-02	4.04E-02	4.05E-02	4.06E-02	3.00E+03	3.00E+03
styrene	4.60E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03	1.56E-03	1.56E-03	1.57E-03	1.00E+03	9.00E+02
toluene	5.08E-05	0.00E+00	1.94E-06	2.24E-05	7.47E-02	7.48E-02	7.50E-02	7.51E-02	7.53E-02	7.54E-02	7.55E-02	7.57E-02	7.58E-02	7.60E-02	7.61E-02	7.63E-02	5.00E+03	3.00E+02
xylene (total)	3.51E-05	0.00E+00	1.12E-06	1.31E-05	6.24E-02	6.25E-02	6.26E-02	6.28E-02	6.29E-02	6.30E-02	6.31E-02	6.33E-02	6.34E-02	6.35E-02	6.36E-02	6.38E-02	1.00E+02	7.00E+02
aluminum	3.15E-04	1.08E-04	1.04E-05	1.09E-04	5.63E-04	2.16E-03	3.75E-03	5.34E-03	6.94E-03	8.53E-03	1.01E-02	1.17E-02	1.33E-02	1.49E-02	1.65E-02	1.81E-02	5.00E+00	NA
ammonium ion	6.04E-07	1.80E-07	1.77E-08	1.85E-07	1.53E-05	5.88E-05	1.02E-04	1.46E-04	1.89E-04	2.33E-04	2.76E-04	3.20E-04	3.63E-04	4.07E-04	4.50E-04	4.94E-04	1.00E+02	2.00E+02
antimony	6.29E-08	2.17E-08	2.09E-09	2.19E-08	3.58E-07	1.37E-06	2.39E-06	3.40E-06	4.41E-06	5.43E-06	6.44E-06	7.45E-06	8.47E-06	9.48E-06	1.05E-05	1.15E-05	NA	NA
arsenic	9.01E-08	2.75E-08	2.74E-09	2.80E-08	9.12E-08	3.47E-07	6.03E-07	8.59E-07	1.12E-06	1.37E-06	1.63E-06	1.88E-06	2.14E-06	2.40E-06	2.65E-06	2.91E-06	1.50E+00	1.50E-02
barium	6.15E-05	1.63E-06	6.49E-07	3.27E-06	1.30E-04	4.88E-04	8.39E-04	1.19E-03	1.55E-03	1.90E-03	2.26E-03	2.61E-03	2.97E-03	3.32E-03	3.68E-03	4.03E-03	5.00E+02	NA
bromine	1.88E-07	4.03E-08	4.25E-09	4.20E-08	2.41E-07	6.84E-07	1.13E-06	1.57E-06	2.01E-06	2.45E-06	2.90E-06	3.34E-06	3.78E-06	4.22E-06	4.67E-06	5.11E-06	NA	NA
cadmium	1.29E-07	4.45E-08	4.29E-09	4.58E-08	1.58E-08	6.05E-08	1.06E-07	1.50E-07	1.95E-07	2.39E-07	2.84E-07	3.29E-07	3.74E-07	4.18E-07	4.63E-07	5.08E-07	1.00E+02	2.00E-02
chlorine	2.12E-05	4.86E-06	4.83E-07	5.03E-06	2.12E-05	4.82E-05	7.52E-05	1.02E-04	1.29E-04	1.56E-04	1.83E-04	2.10E-04	2.37E-04	2.64E-04	2.91E-04	3.18E-04	1.50E-01	2.00E-01
chromium (VI)	1.09E-07	1.55E-08	2.04E-09	1.75E-08	1.46E-07	5.34E-07	9.22E-07	1.31E-06	1.70E-06	2.09E-06	2.47E-06	2.86E-06	3.25E-06	3.64E-06	4.03E-06	4.41E-06	1.00E-01	2.00E-01
cobalt	4.72E-07	1.54E-07	1.49E-08	1.55E-07	2.00E-07	5.34E-07	8.75E-07	1.21E-06	1.56E-06	1.90E-06	2.25E-06	2.59E-06	2.94E-06	3.57E-06	3.91E-06	4.26E-06	NA	NA
copper	1.29E-05	2.72E-07	1.30E-07	6.23E-07	2.73E-05	1.02E-04	1.76E-04	2.50E-04	3.25E-04	3.99E-04	4.73E-04	5.48E-04	6.22E-04	6.97E-04	7.71E-04	8.45E-04	NA	NA
lead	2.42E-06	8.00E-07	7.76E-08	8.10E-07	8.46E-07	3.22E-06	5.60E-06	7.97E-06	1.03E-05	1.27E-05	1.51E-05	1.75E-05	1.99E-05	2.22E-05	2.46E-05	2.70E-05	NA	4.20E-02
manganese	5.68E-06	1.33E-06	1.44E-07	1.39E-06	8.22E-06	3.06E-05	5.35E-05	7.61E-05	9.88E-05	1.21E-04	1.44E-04	1.67E-04	1.89E-04	2.12E-04	2.35E-04	2.57E-04	5.00E+02	9.00E+02
mercury	6.62E-08	2.28E-08	2.20E-09	2.30E-08	4.74E-08	1.82E-07	3.16E-07	4.50E-07	5.84E-07	7.18E-07	8.52E-07	9.87E-07	1.12E-06	1.26E-06	1.39E-06	1.52E-06	3.00E-01	3.00E-02
nickel	9.96E-07	9.32E-08	1.50E-08	1.14E-07	1.67E-06	6.02E-06	1.04E-05	1.47E-05	1.91E-05	2.34E-05	2.78E-05	3.21E-05	3.65E-05	4.08E-05	4.52E-05	4.95E-05	9.00E-02	1.40E-02
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA
phosphorous	6.88E-06	2.26E-06	2.18E-07	2.29E-06	1.49E-05	5.72E-05	9.95E-05	1.42E-04	1.84E-04	2.26E-04	2.69E-04	3.11E-04	3.53E-04	3.95E-04	4.38E-04	4.80E-04	NA	NA
selenium	3.65E-08	3.62E-09	5.30E-10	4.45E-09	6.60E-08	2.47E-07	4.29E-07	6.10E-07	7.91E-07	9.72E-07	1.15E-06	1.33E-06	1.52E-06	1.70E-06	1.88E-06	2.06E-06	2.00E+01	2.00E+01
silicon	8.81E-04	2.79E-04	2.75E-05	2.83E-04	1.75E-03	6.71E-03	1.17E-02	1.66E-02	2.16E-02	2.65E-02	3.15E-02	3.64E-02	4.14E-02	4.63E-02	5.13E-02	5.62E-02	3.00E+00	3.00E+00
silver	3.31E-08	1.14E-08	1.10E-09	1.15E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA
sulfates	7.84E-05	7.05E-06	9.82E-07	8.14E-06	1.63E-04	4.09E-04	6.56E-04	9.02E-04	1.15E-03	1.39E-03	1.64E-03	1.89E-03	2.13E-03	2.38E-03	2.63E-03	2.87E-03	NA	NA
thallium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.10E-08	8.07E-08	1.40E-07	2.00E-07	2.60E-07	3.19E-07	3.79E-07	4.39E-07	4.98E-07	5.58E-07	6.17E-07	6.77E-07	NA	NA
vanadium	1.80E-06	3.84E-07	4.30E-08	4.07E-07	1.88E-06	7.05E-06	1.22E-05	1.74E-05	2.25E-05	2.77E-05	3.29E-05	3.81E-05	4.32E-05	4.84E-05	5.36E-05	5.87E-05	1.00E-01	NA
zinc	3.89E-06	7.60E-07	7.57E-08	8.27E-07	8.53E-06	3.21E-05	5.57E-05	7.93E-05	1.03E-04	1.27E-04	1.50E-04	1.74E-04	1.97E-04	2.21E-04	2.45E-04	2.68E-04	NA	NA
Diesel PM	1.18E-03	1.30E-04	3.00E-05	1.30E-04	7.17E-06	2.16E-05	3.61E-05	5.05E-05	6.50E-05	7.94E-05	9.39E-05	1.08E-04	1.23E-04	1.37E-04	1.52E-04	1.66E-04	5.00E+00	5.00E+00

[1] Residential Maximum Grid No. 484
NA = Not Available
NC = Not Calculated
ug/m^3 = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-3.2
2015 OEHHA Hazard Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project Operations
with 2024-2027 Unmitigated Construction - Lifetime Exposure, Residential Scenario
(Based on Peak Location of Residential Hazards[1])

Equations
Risk = Cair*DBR*EF*CP*A*ASF*ED*FAH*CPF
HQ = Cair / REL
Where: HQ = Hazard Quotient
DBR = Daily Breathing Rate
EF = Fraction of Year
A = Absorption Fraction
CF = Conversion Factor
Cair = Exposure Concentration
ASF = Age sensitivity factor
ED = Fraction of Averaging time
FAH = Fraction of Time at Home
CPF = Cancer Potency Factor

	Hazard Quotient to Resident															
	Construction by Year				Operation by Year											
	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
TAC																
1,2,4-trimethylbenzene	5.39E-07	0.00E+00	0.00E+00	1.17E-08	1.80E-03	1.80E-03	1.80E-03	1.81E-03	1.81E-03	1.82E-03	1.82E-03	1.82E-03	1.83E-03	1.83E-03	1.83E-03	1.83E-03
1,3-butadiene	1.06E-06	0.00E+00	0.00E+00	2.30E-08	3.53E-03	3.53E-03	3.54E-03	3.55E-03	3.55E-03	3.56E-03	3.57E-03	3.57E-03	3.58E-03	3.59E-03	3.60E-03	3.60E-03
2,2,4-trimethylpentane	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	7.89E-09	0.00E+00	0.00E+00	1.71E-10	2.63E-05	2.63E-05	2.64E-05	2.64E-05	2.65E-05	2.65E-05	2.66E-05	2.67E-05	2.67E-05	2.68E-05	2.69E-05	2.69E-05
acrolein	1.45E-06	0.00E+00	0.00E+00	3.14E-08	4.82E-03	4.83E-03	4.84E-03	4.85E-03	4.86E-03	4.87E-03	4.88E-03	4.89E-03	4.90E-03	4.91E-03	4.92E-03	
benzene	3.20E-06	0.00E+00	0.00E+00	6.97E-08	1.07E-02	1.07E-02	1.07E-02	1.07E-02	1.07E-02	1.08E-02	1.08E-02	1.08E-02	1.08E-02	1.08E-02	1.09E-02	1.09E-02
cumene	1.15E-10	0.00E+00	0.00E+00	2.50E-12	3.83E-07	3.84E-07	3.85E-07	3.86E-07	3.87E-07	3.88E-07	3.89E-07	3.89E-07	3.90E-07	3.91E-07	3.92E-07	
cyclohexane	3.99E-10	0.00E+00	0.00E+00	8.67E-12	1.33E-06	1.33E-06	1.33E-06	1.34E-06	1.34E-06	1.34E-06	1.34E-06	1.35E-06	1.35E-06	1.35E-06	1.35E-06	1.36E-06
ethylbenzene	7.15E-09	0.00E+00	3.48E-10	3.99E-09	6.82E-06	6.84E-06	6.85E-06	6.86E-06	6.88E-06	6.89E-06	6.90E-06	6.92E-06	6.93E-06	6.94E-06	6.96E-06	6.97E-06
ethylene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	6.85E-07	0.00E+00	0.00E+00	1.49E-08	2.28E-03	2.29E-03	2.29E-03	2.30E-03	2.30E-03	2.31E-03	2.31E-03	2.31E-03	2.32E-03	2.32E-03	2.33E-03	2.33E-03
hexane, n- isoprene, except from	8.87E-10	0.00E+00	0.00E+00	1.93E-11	2.96E-06	2.96E-06	2.97E-06	2.97E-06	2.98E-06	2.99E-06	2.99E-06	3.00E-06	3.00E-06	3.01E-06	3.02E-06	3.02E-06
vegetative emission sources	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	1.15E-10	0.00E+00	0.00E+00	2.50E-12	3.83E-07	3.84E-07	3.85E-07	3.86E-07	3.87E-07	3.88E-07	3.89E-07	3.89E-07	3.90E-07	3.91E-07	3.92E-07	
methyl ethyl ketone	1.84E-11	0.00E+00	0.00E+00	4.00E-13	6.13E-08	6.14E-08	6.16E-08	6.17E-08	6.18E-08	6.19E-08	6.21E-08	6.22E-08	6.23E-08	6.24E-08	6.25E-08	6.27E-08
naphthalene	2.04E-08	0.00E+00	0.00E+00	4.44E-10	6.81E-05	6.83E-05	6.84E-05	6.85E-05	6.87E-05	6.88E-05	6.89E-05	6.91E-05	6.92E-05	6.94E-05	6.95E-05	6.96E-05
propionaldehyde	1.73E-08	0.00E+00	0.00E+00	3.75E-10	5.75E-05	5.76E-05	5.77E-05	5.78E-05	5.79E-05	5.80E-05	5.81E-05	5.82E-05	5.84E-05	5.85E-05	5.86E-05	5.87E-05
propylene	3.97E-09	0.00E+00	0.00E+00	8.63E-11	1.32E-05	1.33E-05	1.33E-05	1.33E-05	1.34E-05	1.34E-05	1.34E-05	1.34E-05	1.35E-05	1.35E-05	1.35E-05	1.35E-05
styrene	5.11E-10	0.00E+00	0.00E+00	1.11E-11	1.70E-06	1.71E-06	1.71E-06	1.71E-06	1.72E-06	1.72E-06	1.72E-06	1.73E-06	1.73E-06	1.73E-06	1.74E-06	1.74E-06
toluene	1.69E-07	0.00E+00	6.45E-09	7.47E-08	2.49E-04	2.49E-04	2.50E-04	2.50E-04	2.51E-04	2.51E-04	2.52E-04	2.52E-04	2.53E-04	2.53E-04	2.54E-04	2.54E-04
xylene (total)	5.02E-08	0.00E+00	1.60E-09	1.87E-08	8.91E-05	8.93E-05	8.95E-05	8.97E-05	8.98E-05	9.00E-05	9.02E-05	9.04E-05	9.05E-05	9.07E-05	9.09E-05	9.11E-05
aluminum	6.29E-05	2.16E-05	2.09E-06	2.18E-05	1.13E-04	4.31E-04	7.50E-04	1.07E-03	1.39E-03	1.71E-03	2.03E-03	2.34E-03	2.66E-03	2.98E-03	3.30E-03	3.62E-03
ammonium ion	3.02E-09	9.02E-10	8.84E-11	9.24E-10	7.67E-08	2.94E-07	5.11E-07	7.29E-07	9.46E-07	1.16E-06	1.38E-06	1.60E-06	1.82E-06	2.03E-06	2.25E-06	2.47E-06
antimony	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
arsenic	6.01E-06	1.83E-06	1.83E-07	1.87E-06	6.08E-06	2.31E-05	4.02E-05	5.73E-05	7.44E-05	9.14E-05	1.08E-04	1.25E-04	1.42E-04	1.59E-04	1.76E-04	1.94E-04
barium	1.23E-04	3.26E-06	1.30E-06	6.55E-06	2.60E-04	9.69E-04	1.68E-03	2.39E-03	3.10E-03	3.81E-03	4.52E-03	5.23E-03	5.94E-03	6.64E-03	7.35E-03	8.06E-03
bromine	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cadmium	6.45E-06	2.22E-06	2.15E-07	2.24E-06	7.90E-07	3.00E-06	5.28E-06	7.50E-06	9.71E-06	1.20E-05	1.42E-05	1.64E-05	1.87E-05	2.09E-05	2.31E-05	2.54E-05
chlorine	1.06E-04	2.43E-05	2.41E-06	2.51E-05	1.06E-04	2.41E-04	3.76E-04	5.11E-04	6.46E-04	7.81E-04	9.16E-04	1.05E-03	1.19E-03	1.32E-03	1.46E-03	1.59E-03
chromium (VI)	5.46E-07	7.77E-08	1.02E-08	8.74E-08	7.30E-07	2.67E-06	4.61E-06	6.55E-06	8.49E-06	1.04E-05	1.24E-05	1.43E-05	1.62E-05	1.82E-05	2.01E-05	2.21E-05
cobalt	7.86E-05	2.57E-05	2.48E-06	2.59E-05	3.34E-05	8.90E-05	1.46E-04	2.02E-04	2.58E-04	3.14E-04	3.71E-04	4.27E-04	4.83E-04	5.39E-04	5.95E-04	6.52E-04
copper	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
lead	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
manganese	6.31E-05	1.48E-05	1.59E-06	1.55E-05	9.13E-05	3.40E-04	5.94E-04	8.46E-04	1.10E-03	1.35E-03	1.60E-03	1.85E-03	2.10E-03	2.35E-03	2.61E-03	2.86E-03
mercury	2.21E-06	7.60E-07	7.33E-08	7.67E-07	1.58E-06	6.05E-06	1.05E-05	1.50E-05	1.95E-05	2.39E-05	2.84E-05	3.29E-05	3.74E-05	4.18E-05	4.63E-05	5.08E-05
nickel	7.11E-05	6.66E-06	1.07E-06	8.16E-06	1.19E-04	4.30E-04	7.41E-04	1.05E-03	1.36E-03	1.67E-03	1.98E-03	2.29E-03	2.60E-03	2.92E-03	3.23E-03	3.54E-03
non-phosphate phosphorous	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
phosphorous	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
selenium	1.83E-09	1.81E-10	2.65E-11	2.23E-10	3.30E-09	1.24E-08	2.14E-08	3.05E-08	3.96E-08	4.86E-08	5.77E-08	6.67E-08	7.58E-08	8.49E-08	9.39E-08	1.03E-07
silicon	2.94E-04	9.29E-05	9.17E-06	9.44E-05	5.84E-04	2.24E-03	3.89E-03	5.54E-03	7.19E-03	8.84E-03	1.05E-02	1.21E-02	1.38E-02	1.54E-02	1.71E-02	1.87E-02
silver	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
sulfates	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
thallium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
vanadium	1.80E-05	3.84E-06	4.30E-07	4.07E-06	1.88E-05	7.05E-05	1.22E-04	1.74E-04	2.25E-04	2.77E-04	3.29E-04	3.81E-04	4.32E-04	4.84E-04	5.36E-04	5.87E-04
zinc	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Diesel PM	2.36E-04	2.60E-05	6.00E-06	2.60E-05	1.43E-06	4.32E-06	7.21E-06	1.01E-05	1.30E-05	1.59E-05	1.88E-05	2.17E-05	2.46E-05	2.74E-05	3.03E-05	3.32E-05
TOTAL	0.001	0.0002	0.000003	0.0002	0.02	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.05	0.06	0.06	0.06

NA = Not Available
NC = Not Calculated
ug/m^3 = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-3.2D
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project Operations
with 2024-2027 Unmitigated Construction - Lifetime Exposure, School Child Scenario, 9-year and 12-year
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	Ages 2<9	Ages 2<16	Ages 16<30		Start Age	End Age
Daily Breathing Rate (DBR)	861 L/kg-d	745 L/kg-d	335 L/kg-d	Child Resident	0	9 Year
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless	School Child 9-yr	7	15 Year
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless	School Child 12-yr	7	18 Year
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	30-year Resident	0	30 Year
Age-adjustment (ASF)	3 unitless	3 unitless	1 unitless	70-year Resident	0	70 Year
Fraction of Averaging Time (ED)	0.01429 unitless	0.01429 unitless	0.01429 unitless			
Fraction of Time at Home (FAH)	1.00 unitless	1 unitless	0.73 unitless			
School Child 8-hr Daily Breathing Rate (DBR)	640 L/kg-d	520 L/kg-d	240 L/kg-d			
School Child Fraction of Time at Home (FAH)	1 unitless	1 unitless	1 unitless			

| | Concentration at Location w/Maximum Risk (ug/m^3) | | | | | | | | |

Table 1-3.4A
2015 OEHHA Hazard Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project Operations with 2024-2027 Unmitigated Construction - Worker Scenario (Based on Peak Location of Commercial Hazards[1])

Exposure Parameters	Ages 16<30	Ages 16<70
Worker 8-hr Daily Breathing Rate (DBR)	240 L/kg-d	230 L/kg-d
Fraction of Year (EF)	0.68 unitless	0.68 unitless
Absorption Fraction (A)	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L
Age-adjustment (ASF)	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.01 unitless	0.157 unitless
Worker Adjustment Factor (WAH)	1 unitless	1 unitless

	Concentration at Location w/Maximum Risk (ug/m^3)																Toxicity Criteria	
	Construction by Year				Operations												EPA	CalEPA
	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	RfC (ug/m^3)	REL (ug/m^3)
TAC																		
1,2,4-trimethylbenzene	6.48E-06	6.56E-07	6.56E-07	1.97E-06	-3.35E-03	-3.28E-03	-3.21E-03	-3.13E-03	-3.06E-03	-2.99E-03	-2.92E-03	-2.84E-03	-2.77E-03	-2.70E-03	-2.63E-03	-2.55E-03	7.00E+00	NA
1,3-butadiene	3.63E-06	3.68E-07	3.68E-07	1.10E-06	-1.88E-03	-1.84E-03	-1.80E-03	-1.76E-03	-1.72E-03	-1.68E-03	-1.64E-03	-1.60E-03	-1.55E-03	-1.51E-03	-1.47E-03	-1.43E-03	2.00E+00	2.00E+00
2,2,4-trimethylpentane	1.54E-05	1.56E-06	1.56E-06	4.68E-06	-7.97E-03	-7.80E-03	-7.63E-03	-7.46E-03	-7.28E-03	-7.11E-03	-6.94E-03	-6.76E-03	-6.59E-03	-6.42E-03	-6.24E-03	-6.07E-03	NA	NA
acetaldehyde	1.90E-06	1.92E-07	1.92E-07	5.76E-07	-9.81E-04	-9.60E-04	-9.39E-04	-9.18E-04	-8.96E-04	-8.75E-04	-8.54E-04	-8.32E-04	-8.11E-04	-7.90E-04	-7.69E-04	-7.47E-04	9.00E+00	1.40E+02
acrolein	8.69E-07	8.80E-08	8.80E-08	2.64E-07	-4.50E-04	-4.40E-04	-4.30E-04	-4.21E-04	-4.11E-04	-4.01E-04	-3.91E-04	-3.82E-04	-3.72E-04	-3.62E-04	-3.52E-04	-3.42E-04	2.00E-02	3.50E-01
benzene	1.65E-05	1.67E-06	1.67E-06	5.02E-06	-8.55E-03	-8.36E-03	-8.18E-03	-7.99E-03	-7.80E-03	-7.62E-03	-7.43E-03	-7.25E-03	-7.06E-03	-6.88E-03	-6.69E-03	-6.51E-03	3.00E+01	3.00E+00
cumene	7.90E-08	8.00E-09	8.00E-09	2.40E-08	-4.09E-05	-4.00E-05	-3.91E-05	-3.82E-05	-3.73E-05	-3.65E-05	-3.56E-05	-3.47E-05	-3.38E-05	-3.29E-05	-3.20E-05	-3.11E-05	4.00E+02	NA
cyclohexane	4.11E-06	4.16E-07	4.16E-07	1.25E-06	-2.13E-03	-2.08E-03	-2.03E-03	-1.99E-03	-1.94E-03	-1.90E-03	-1.85E-03	-1.80E-03	-1.76E-03	-1.71E-03	-1.67E-03	-1.62E-03	6.00E+03	NA
ethylbenzene	1.79E-05	7.12E-07	1.46E-05	1.39E-04	-3.64E-03	-3.56E-03	-3.48E-03	-3.40E-03	-3.32E-03	-3.24E-03	-3.17E-03	-3.09E-03	-3.01E-03	-2.93E-03	-2.85E-03	-2.77E-03	1.00E+03	2.00E+03
ethylene	4.26E-05	4.31E-06	4.31E-06	1.29E-05	-2.20E-02	-2.15E-02	-2.11E-02	-2.06E-02	-2.01E-02	-1.97E-02	-1.92E-02	-1.87E-02	-1.82E-02	-1.77E-02	-1.72E-02	-1.68E-02	NA	NA
formaldehyde	1.06E-05	1.07E-06	1.07E-06	3.22E-06	-5.48E-03	-5.36E-03	-5.24E-03	-5.12E-03	-5.00E-03	-4.89E-03	-4.77E-03	-4.65E-03	-4.53E-03	-4.41E-03	-4.29E-03	-4.17E-03	9.80E+00	9.00E+00
hexane, n- isoprene, except from vegetative	1.07E-05	1.08E-06	1.08E-06	3.24E-06	-5.52E-03	-5.40E-03	-5.28E-03	-5.16E-03	-5.04E-03	-4.92E-03	-4.80E-03	-4.68E-03	-4.56E-03	-4.44E-03	-4.32E-03	-4.20E-03	7.00E+02	7.00E+03
emission sources	9.48E-07	9.60E-08	9.60E-08	2.88E-07	-4.91E-04	-4.80E-04	-4.69E-04	-4.59E-04	-4.48E-04	-4.37E-04	-4.27E-04	-4.16E-04	-4.06E-04	-3.95E-04	-3.84E-04	-3.74E-04	NA	NA
methyl alcohol	7.90E-07	8.00E-08	8.00E-08	2.40E-07	-4.09E-04	-4.00E-04	-3.91E-04	-3.82E-04	-3.73E-04	-3.65E-04	-3.56E-04	-3.47E-04	-3.38E-04	-3.29E-04	-3.20E-04	-3.11E-04	2.00E+04	4.00E+03
methyl ethyl ketone	1.58E-07	1.60E-08	1.60E-08	4.80E-08	-8.18E-05	-8.00E-05	-7.82E-05	-7.65E-05	-7.47E-05	-7.30E-05	-7.12E-05	-6.94E-05	-6.76E-05	-6.58E-05	-6.40E-05	-6.23E-05	5.00E+03	NA
naphthalene	3.16E-07	3.20E-08	3.20E-08	9.60E-08	-1.64E-04	-1.60E-04	-1.56E-04	-1.53E-04	-1.49E-04	-1.46E-04	-1.42E-04	-1.39E-04	-1.35E-04	-1.32E-04	-1.28E-04	-1.25E-04	3.00E+00	9.00E+00
propionaldehyde	2.37E-07	2.40E-08	2.40E-08	7.20E-08	-1.23E-04	-1.20E-04	-1.17E-04	-1.15E-04	-1.12E-04	-1.09E-04	-1.07E-04	-1.04E-04	-1.01E-04	-9.87E-05	-9.61E-05	-9.34E-05	8.00E+00	NA
propylene	2.05E-05	2.07E-06	2.07E-06	6.22E-06	-1.06E-02	-1.04E-02	-1.01E-02	-9.90E-03	-9.67E-03	-9.45E-03	-9.22E-03	-8.98E-03	-8.75E-03	-8.52E-03	-8.29E-03	-8.06E-03	3.00E+03	3.00E+03
styrene	7.90E-07	8.00E-08	8.00E-08	2.40E-07	-4.09E-04	-4.00E-04	-3.91E-04	-3.82E-04	-3.73E-04	-3.65E-04	-3.56E-04	-3.47E-04	-3.38E-04	-3.29E-04	-3.20E-04	-3.11E-04	1.00E+03	9.00E+02
toluene	6.88E-05	3.90E-06	4.26E-05	3.92E-04	-1.99E-02	-1.95E-02	-1.91E-02	-1.86E-02	-1.82E-02	-1.78E-02	-1.73E-02	-1.69E-02	-1.65E-02	-1.60E-02	-1.56E-02	-1.52E-02	5.00E+03	3.00E+02
xylene (total)	4.97E-05	3.20E-06	2.29E-04	-1.66E-02	-1.63E-02	-1.59E-02	-1.56E-02	-1.52E-02	-1.48E-02	-1.45E-02	-1.41E-02	-1.38E-02	-1.34E-02	-1.30E-02	-1.27E-02	-1.00E+02	7.00E+02	
aluminum	4.93E-04	1.86E-03	1.79E-04	1.89E-03	3.88E-02	3.87E-02	3.86E-02	3.85E-02	3.84E-02	3.83E-02	3.82E-02	3.81E-02	3.80E-02	3.79E-02	3.79E-02	5.00E+00	NA	NA
ammonium ion	9.58E-07	3.13E-06	3.19E-07	3.21E-06	1.06E-03	1.06E-03	1.05E-03	1.05E-03	1.05E-03	1.05E-03	1.04E-03	1.04E-03	1.04E-03	1.04E-03	1.03E-03	1.03E-03	1.00E+02	2.00E+02
antimony	9.84E-08	3.73E-07	3.57E-08	3.78E-07	2.47E-03	2.46E-03	2.45E-03	2.45E-03	2.44E-03	2.43E-03	2.42E-03	2.42E-03	2.41E-03	2.40E-03	2.39E-03	2.38E-03	NA	NA
arsenic	1.42E-07	4.74E-07	4.68E-08	4.85E-07	6.29E-06	6.27E-06	6.25E-06	6.23E-06	6.22E-06	6.20E-06	6.18E-06	6.16E-06	6.14E-06	6.12E-06	6.10E-06	6.08E-06	1.50E-02	1.50E-02
barium	1.04E-04	3.29E-05	1.11E-05	6.09E-05	8.95E-03	8.90E-03	8.86E-03	8.81E-03	8.76E-03	8.72E-03	8.67E-03	8.62E-03	8.57E-03	8.53E-03	8.48E-03	8.43E-03	5.00E-01	NA
bromine	3.05E-07	6.99E-07	7.31E-07	1.05E-06	-1.14E-02	-1.13E-02	-1.12E-02	-1.11E-02	-1.10E-02	-1.09E-02	-1.08E-02	-1.07E-02	-1.06E-02	-1.05E-02	-1.04E-02	-1.03E-02	NA	NA
cadmium	2.02E-07	7.66E-07	7.33E-08	7.75E-07	1.09E-06	1.09E-06	1.08E-06	1.08E-06	1.08E-06	1.08E-06	1.07E-06	1.07E-06	1.07E-06	1.06E-06	1.06E-06	1.00E-02	2.00E-02	
chlorine	3.45E-05	8.45E-05	8.95E-06	8.77E-05	1.31E-03	1.17E-03	1.03E-03	8.93E-04	7.54E-04	6.15E-04	4.76E-04	3.37E-04	1.98E-04	5.96E-05	-7.92E-05	-2.18E-04	1.50E-01	2.00E-01
chromium (VI)	1.79E-07	2.73E-07	3.50E-08	3.07E-07	1.00E-07	9.82E-08	9.72E-08	9.62E-08	9.52E-08	9.42E-08	9.32E-08	9.22E-08	9.12E-08	9.02E-08	8.92E-08	8.82E-08	1.50E-01	2.00E-01
cobalt	7.44E-07	2.65E-06	2.54E-07	2.68E-06	1.27E-05	1.17E-05	1.08E-05	9.77E-06	8.78E-06	7.79E-06	6.81E-06	5.82E-06	4.83E-06	3.84E-06	2.86E-06	1.87E-06	6.00E-03	NA
copper	2.18E-05	5.74E-06	2.26E-06	1.17E-05	1.88E-03	1.87E-03	1.86E-03	1.85E-03	1.84E-03	1.83E-03	1.82E-03	1.81E-03	1.79E-03	1.78E-03	1.77E-03	1.76E-03	NA	NA
lead	3.79E-06	1.38E-05	1.34E-06	1.40E-05	5.80E-05	5.80E-05	5.79E-05	5.78E-05	5.77E-05	5.76E-05	5.75E-05	5.74E-05	5.73E-05	5.69E-05	5.68E-05	5.64E-05	NA	NA
manganese	9.12E-06	2.30E-05	2.46E-06	2.42E-05	5.66E-04	5.63E-04	5.59E-04	5.56E-04	5.53E-04	5.50E-04	5.47E-04	5.44E-04	5.41E-04	5.38E-04	5.35E-04	5.32E-04	5.00E-02	9.00E-02
mercury	1.04E-07	3.93E-07	3.76E-08	3.98E-07	3.27E-06	3.26E-06	3.25E-06	3.24E-06	3.24E-06	3.23E-06	3.22E-06	3.22E-06	3.21E-06	3.20E-06	3.19E-06	3.19E-06	3.00E-01	3.00E-02
nickel	1.66E-06	1.67E-06	2.62E-07	2.03E-06	1.14E-04	1.14E-04	1.11E-04	1.10E-04	1.08E-04	1.07E-04	1.05E-04	1.04E-04	1.02E-04	1.00E-04	9.88E-05	9.73E-05	9.00E-02	1.40E-02
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA
phosphorous	1.08E-05	3.90E-05	3.83E-06	3.97E-05	1.03E-03	1.03E-03	1.03E-03	1.02E-03	1.02E-03	1.02E-03	1.02E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.00E-03	NA	NA
selenium	6.07E-08	6.56E-08	1.08E-08	8.02E-08	4.55E-06	4.53E-06	4.51E-06	4.49E-06	4.47E-06	4.44E-06	4.42E-06	4.40E-06	4.38E-06	4.35E-06	4.33E-06	4.31E-06	2.00E+01	2.00E+01
silicon	1.39E-03	4.81E-03	4.70E-04	4.90E-03	1.21E-01	1.21E-01	1.20E-01	1.20E-01	1.20E-01	1.19E-01	1.19E-01	1.19E-01	1.19E-01	1.18E-01	1.18E-01	1.18E-01	3.00E+00	3.00E+00
silver	5.18E-08	1.96E-07	1.88E-08	1.99E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA
sulfates	1.33E-04	1.25E-04	1.70E-05	1.44E-04	1.03E-02	9.39E-03	8.46E-03	7.55E-03	6.65E-03	5.75E-03	4.84E-03	3.94E-03	3.04E-03	2.13E-03	1.23E-03	3.28E-04	NA	NA
thallium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.46E-06	1.45E-06	1.45E-06	1.44E-06	1.44E-06	1.44E-06	1.43E-06	1.43E-06	1.42E-06	1.42E-06	1.42E-06	NA	NA	NA
vanadium	2.91E-06	6.67E-06	7.34E-07	7.09E-06	1.30E-04	1.29E-04	1.28E-04	1.28E-04	1.27E-04	1.27E-04	1.26E-04	1.25E-04	1.25E-04	1.24E-04	1.23E-04	1.23E-04	1.00E-01	NA
zinc	6.36E-06	1.36E-05	1.77E-06	1.48E-05	5.88E-04	5.85E-04	5.82E-04	5.79E-04	5.76E-04	5.73E-04	5.70E-04	5.67E-04	5.64E-04	5.61E-04	5.58E-04	5.55E-04	NA	NA
Diesel PM	1.96E-03	2.50E-03	4.80E-04	2.50E-03	1.98E-04	3.50E-04	5.02E-04	6.54E-04	8.07E-04	9.59E-04	1.11E-03	1.26E-03	1.42E-03	1.57E-03	1.72E-03	1.87E-03	5.00E+00	5.00E+00

[1] Commercial Maximum Grid No. 779

NA = Not Available ug/m^3 = micrograms per cubic meter
NC = Not Calculated mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-3.3
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project Operations with 2024-2027 Unmitigated Construction - Lifetime Exposure, Worker Scenario (Based on Peak Location of Commercial Cancer Risks[1])

Exposure Parameters	Ages 16<30	Ages 16<70
Worker 8-hr Daily Breathing Rate (DBR)	240 L/kg-d	230 L/kg-d
Fraction of Year (EF)	0.68 unitless	0.68 unitless
Absorption Fraction (A)	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L
Age-adjustment (ASF)	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.01429 unitless	0.01429 unitless
Worker Adjustment Factor (WAH)	1 unitless	1 unitless

	Concentration at Location w/Maximum Risk (ug/m^3)																Toxicity Criteria	
	Construction by Year				Operation by Year												EPA Inhalation CPF ($mg/kg-day)^{-1}$	CalEPA Inhalation CPF ($mg/kg-day)^{-1}$
	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035		
TAC																		
1,2,4-trimethylbenzene	3.28E-06	0.00E+00	0.00E+00	8.20E-08	2.64E-02	2.65E-02	2.66E-02	2.67E-02	2.68E-02	2.69E-02	2.70E-02	2.71E-02	2.72E-02	2.73E-02	2.74E-02	2.74E-02	NA	NA
1,3-butadiene	1.84E-06	0.00E+00	0.00E+00	4.60E-08	1.48E-02	1.49E-02	1.50E-02	1.50E-02	1.51E-02	1.51E-02	1.52E-02	1.52E-02	1.53E-02	1.53E-02	1.54E-02	1.55E-02	1.05E-01	6.00E-01
2,2,4-trimethylpentane	7.80E-06	0.00E+00	0.00E+00	1.95E-07	6.29E-02	6.31E-02	6.33E-02	6.35E-02	6.37E-02	6.40E-02	6.42E-02	6.44E-02	6.46E-02	6.48E-02	6.51E-02	6.53E-02	NA	NA
acetaldehyde	9.60E-07	0.00E+00	0.00E+00	2.40E-08	7.74E-03	7.76E-03	7.79E-03	7.82E-03	7.84E-03	7.87E-03	7.90E-03	7.93E-03	7.95E-03	7.98E-03	8.01E-03	8.03E-03	7.70E-03	1.00E-02
acrolein	4.40E-07	0.00E+00	0.00E+00	1.10E-08	3.55E-03	3.57E-03	3.58E-03	3.60E-03	3.61E-03	3.62E-03	3.63E-03	3.65E-03	3.66E-03	3.67E-03	3.68E-03	3.68E-03	NA	NA
benzene	8.36E-06	0.00E+00	0.00E+00	2.09E-07	6.74E-02	6.76E-02	6.78E-02	6.81E-02	6.83E-02	6.85E-02	6.88E-02	6.90E-02	6.93E-02	6.95E-02	6.97E-02	7.00E-02	2.73E-02	1.00E-01
cumene	4.00E-08	0.00E+00	0.00E+00	1.00E-09	3.22E-04	3.23E-04	3.25E-04	3.26E-04	3.27E-04	3.28E-04	3.29E-04	3.30E-04	3.31E-04	3.32E-04	3.34E-04	3.35E-04	NA	NA
cyclohexane	2.08E-06	0.00E+00	0.00E+00	5.20E-08	1.68E-02	1.68E-02	1.69E-02	1.69E-02	1.70E-02	1.71E-02	1.71E-02	1.72E-02	1.72E-02	1.73E-02	1.73E-02	1.74E-02	NA	NA
ethylbenzene	1.31E-05	0.00E+00	9.28E-07	8.67E-06	2.87E-02	2.88E-02	2.89E-02	2.90E-02	2.91E-02	2.92E-02	2.93E-02	2.94E-02	2.95E-02	2.96E-02	2.97E-02	2.98E-02	8.75E-03	8.70E-03
ethylene	2.16E-05	0.00E+00	0.00E+00	5.39E-07	1.74E-01	1.74E-01	1.75E-01	1.76E-01	1.76E-01	1.77E-01	1.77E-01	1.78E-01	1.79E-01	1.79E-01	1.80E-01	1.80E-01	NA	NA
formaldehyde	3.36E-06	0.00E+00	0.00E+00	8.40E-08	1.34E-02	4.32E-02	4.33E-02	4.35E-02	4.36E-02	4.37E-02	4.38E-02	4.40E-02	4.41E-02	4.43E-02	4.44E-02	4.46E-02	4.45E-02	2.70E-02
hexane, n- isoprene, except from vegetative	5.40E-06	0.00E+00	0.00E+00	1.35E-07	4.35E-02	4.37E-02	4.38E-02	4.40E-02	4.41E-02	4.43E-02	4.44E-02	4.46E-02	4.47E-02	4.49E-02	4.50E-02	4.52E-02	NA	NA
emission sources	4.80E-07	0.00E+00	0.00E+00	1.20E-08	3.87E-03	3.88E-03	3.90E-03	3.91E-03	3.92E-03	3.94E-03	3.95E-03	3.96E-03	3.98E-03	3.99E-03	4.00E-03	4.02E-03	NA	NA
methyl alcohol	4.00E-07	0.00E+00	0.00E+00	1.00E-08	3.22E-03	3.23E-03	3.25E-03	3.26E-03	3.27E-03	3.28E-03	3.29E-03	3.30E-03	3.31E-03	3.32E-03	3.34E-03	3.35E-03	NA	NA
methyl ethyl ketone	8.00E-08	0.00E+00	0.00E+00	2.00E-09	6.45E-04	6.47E-04	6.49E-04	6.51E-04	6.54E-04	6.56E-04	6.58E-04	6.60E-04	6.63E-04	6.65E-04	6.67E-04	6.69E-04	NA	NA
naphthalene	1.60E-07	0.00E+00	0.00E+00	4.00E-09	1.29E-03	1.29E-03	1.30E-03	1.30E-03	1.31E-03	1.31E-03	1.32E-03	1.32E-03	1.33E-03	1.33E-03	1.33E-03	1.34E-03	1.19E-01	1.20E-01
propionaldehyde	1.20E-07	0.00E+00	0.00E+00	3.00E-09	9.67E-04	9.70E-04	9.74E-04	9.77E-04	9.81E-04	9.84E-04	9.87E-04	9.91E-04	9.94E-04	9.97E-04	1.00E-03	1.00E-03	NA	NA
propylene	1.04E-05	0.00E+00	0.00E+00	2.59E-07	8.35E-02	8.38E-02	8.41E-02	8.44E-02	8.47E-02	8.49E-02	8.52E-02	8.55E-02	8.58E-02	8.61E-02	8.64E-02	8.67E-02	NA	NA
styrene	4.00E-07	0.00E+00	0.00E+00	1.00E-08	3.22E-03	3.23E-03	3.25E-03	3.26E-03	3.27E-03	3.28E-03	3.29E-03	3.30E-03	3.31E-03	3.32E-03	3.34E-03	3.35E-03	NA	NA
toluene	4.59E-05	0.00E+00	2.58E-06	2.44E-05	1.57E-01	1.58E-01	1.58E-01	1.59E-01	1.59E-01	1.60E-01	1.60E-01	1.61E-01	1.61E-01	1.62E-01	1.62E-01	1.63E-01	NA	NA
xylene (total)	3.16E-05	0.00E+00	1.49E-06	1.42E-05	1.31E-01	1.32E-01	1.32E-01	1.33E-01	1.33E-01	1.34E-01	1.34E-01	1.35E-01	1.35E-01	1.36E-01	1.36E-01	1.36E-01	NA	NA
aluminum	2.76E-04	1.16E-04	1.14E-05	1.18E-04	8.55E-04	2.22E-03	3.58E-03	4.94E-03	6.30E-03	7.66E-03	9.03E-03	1.04E-02	1.17E-02	1.31E-02	1.45E-02	1.58E-02	NA	NA
ammonium ion	5.21E-07	1.95E-07	2.12E-08	2.01E-07	2.33E-05	6.05E-05	9.76E-05	1.35E-04	1.72E-04	2.09E-04	2.46E-04	2.83E-04	3.20E-04	3.58E-04	3.95E-04	4.32E-04	NA	NA
antimony	5.51E-08	2.32E-08	2.28E-09	2.36E-08	5.44E-07	1.41E-06	2.28E-06	3.14E-06	4.01E-06	4.87E-06	5.74E-06	6.61E-06	7.47E-06	8.34E-06	9.21E-06	1.01E-05	NA	NA
arsenic	7.79E-08	2.95E-08	2.98E-09	3.03E-08	7.19E-07	1.79E-06	2.90E-06	4.00E-06	5.11E-06	6.21E-06	7.32E-06	8.42E-06	9.53E-06	1.06E-05	1.17E-05	1.28E-05	1.51E+01	1.20E+01
barium	4.80E-05	2.25E-06	6.61E-07	3.91E-06	1.97E-04	5.00E-04	8.03E-04	1.11E-03	1.41E-03	1.71E-03	2.01E-03	2.32E-03	2.62E-03	2.92E-03	3.23E-03	3.53E-03	NA	NA
bromine	1.63E-07	4.37E-08	4.75E-09	4.57E-08	3.63E-07	1.06E-06	1.76E-06	2.46E-06	3.16E-06	3.87E-06	4.57E-06	5.27E-06	5.97E-06	6.68E-06	7.38E-06	8.08E-06	NA	NA
cadmium	1.13E-07	4.79E-08	4.68E-09	4.84E-08	2.40E-08	6.22E-08	1.00E-07	1.38E-07	1.76E-07	2.14E-07	2.52E-07	2.90E-07	3.28E-07	3.66E-07	4.06E-07	4.44E-07	6.30E+00	1.50E+01
chlorine	1.86E-05	5.29E-06	6.03E-07	5.50E-06	3.17E-05	4.86E-05	6.54E-05	8.23E-05	9.91E-05	1.16E-04	1.33E-04	1.50E-04	1.67E-04	1.83E-04	2.00E-04	2.17E-04	NA	NA
chromium (VI)	8.93E-08	1.72E-08	2.19E-09	1.93E-08	2.22E-07	5.51E-07	8.80E-07	1.21E-06	1.54E-06	1.87E-06	2.20E-06	2.52E-06	2.85E-06	3.18E-06	3.51E-06	3.84E-06	4.20E+01	5.10E+02
cobalt	4.17E-07	1.65E-07	1.62E-08	1.67E-07	3.01E-07	5.45E-07	7.89E-07	1.03E-06	1.28E-06	1.52E-06	2.76E-06	2.01E-06	2.25E-06	2.50E-06	2.74E-06	2.98E-06	NA	NA
copper	1.01E-05	4.03E-07	1.36E-07	7.55E-07	4.15E-05	1.05E-04	1.68E-04	2.32E-04	2.95E-04	3.59E-04	4.22E-04	4.85E-04	5.49E-04	6.12E-04	6.76E-04	7.39E-04	NA	NA
lead	2.11E-06	8.59E-07	8.62E-08	8.75E-07	1.29E-06	3.31E-06	5.34E-06	7.37E-06	9.40E-06	1.14E-05	1.34E-05	1.55E-05	1.75E-05	1.95E-05	2.16E-05	2.36E-05	NA	4.20E-02
manganese	4.79E-06	1.44E-06	1.56E-07	1.51E-06	1.25E-05	3.18E-05	5.11E-05	7.04E-05	8.96E-05	1.09E-04	1.28E-04	1.48E-04	1.67E-04	1.86E-04	2.05E-04	2.25E-04	NA	NA
mercury	5.80E-08	2.44E-08	2.40E-09	2.48E-08	7.20E-08	1.87E-07	3.01E-07	4.16E-07	5.31E-07	6.45E-07	7.60E-07	8.75E-07	9.89E-07	1.10E-06	1.22E-06	1.33E-06	NA	NA
nickel	8.03E-07	1.00E-07	1.14E-08	9.73E-08	9.02E-06	2.21E-05	3.52E-05	4.83E-05	6.14E-05	7.45E-05	8.76E-05	1.01E-04	1.14E-04	1.27E-04	1.40E-04	1.54E-04	8.40E-01	9.10E-01
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA
phosphorous	5.99E-06	2.43E-06	2.50E-07	2.48E-06	2.27E-05	5.88E-05	9.50E-05	1.31E-04	1.67E-04	2.03E-04	2.39E-04	2.76E-04	3.12E-04	3.48E-04	3.84E-04	4.20E-04	NA	NA
selenium	2.33E-08	4.26E-09	7.60E-10	5.23E-09	1.00E-07	2.55E-07	4.10E-07	5.65E-07	7.19E-07	8.74E-07	1.03E-06	1.18E-06	1.34E-06	1.49E-06	1.65E-06	1.80E-06	NA	NA
silicon	7.64E-04	2.99E-04	3.00E-05	3.06E-04	2.66E-03	6.90E-03	1.11E-02	1.54E-02	1.96E-02	2.38E-02	2.80E-02	3.23E-02	3.65E-02	4.07E-02	4.50E-02	4.92E-02	NA	NA
silver	2.90E-08	1.22E-08	1.20E-09	1.24E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA
sulfates	6.78E-05	7.88E-06	1.07E-06	9.03E-06	2.44E-04	4.15E-04	5.85E-04	7.56E-04	9.26E-04	1.10E-03	1.27E-03	1.44E-03	1.61E-03	1.78E-03	1.95E-03	2.12E-03	NA	NA
thallium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.20E-08	8.29E-08	1.34E-07	1.85E-07	2.36E-07	2.87E-07	3.38E-07	3.89E-07

CDM Smith
Partners Door

Operation

1-4 2024 With Project vs. 2024 Without Project

With Mitigated Construction

Attachment 1 - Cancer Risk and Chronic Non-Cancer Health Hazard Calculations by 2015 OEHHA Methodology

Table 1-3.4B
2015 OEHHA Hazard Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project Operations
with 2024-2027 Unmitigated Construction - Worker Scenario
(Based on Peak Location of Commercial Cancer Risks[1])

Exposure Parameters	Ages 16<30	Ages 16<70
Worker 8-hr Daily Breathing Rate (DBR)	2.40 L/kg-d	2.30 L/kg-d
Fraction of Year (EF)	0.68 unitless	0.68 unitless
Absorption Fraction (A)	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L
Age-adjustment (ASF)	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.01 unitless	0.157 unitless
Worker Adjustment Factor (WAH)	1 unitless	1 unitless

	Concentration at Location w/Maximum Risk (ug/m^3)															Toxicity Criteria	
	Construction by Year				Operations											EPA	CalEPA
	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	RIC	REL
TAC																	(ug/m^3)	(ug/m^3)
1,2,4-trimethylbenzene	2.79E-06	8.20E-08	8.20E-08	2.46E-07	4.65E-03	4.62E-03	4.60E-03	4.57E-03	4.54E-03	4.52E-03	4.49E-03	4.47E-03	4.44E-03	4.41E-03	4.39E-03	4.36E-03	7.00E+00	NA
1,3-butadiene	1.56E-06	4.60E-08	4.60E-08	1.38E-07	2.61E-03	2.59E-03	2.58E-03	2.56E-03	2.55E-03	2.53E-03	2.52E-03	2.50E-03	2.49E-03	2.48E-03	2.46E-03	2.45E-03	2.00E+00	2.00E+00
2,2,4-trimethylpentane	6.63E-06	1.95E-07	1.95E-07	5.85E-07	1.11E-02	1.10E-02	1.09E-02	1.09E-02	1.08E-02	1.07E-02	1.07E-02	1.06E-02	1.06E-02	1.05E-02	1.04E-02	1.04E-02	NA	NA
acetaldehyde	8.16E-07	2.40E-08	2.40E-08	7.20E-08	1.36E-03	1.35E-03	1.34E-03	1.34E-03	1.33E-03	1.32E-03	1.31E-03	1.31E-03	1.30E-03	1.29E-03	1.28E-03	1.28E-03	9.00E+00	1.40E+02
acrolein	3.74E-07	1.10E-08	1.10E-08	3.30E-08	6.23E-04	6.20E-04	6.16E-04	6.13E-04	6.09E-04	6.06E-04	6.02E-04	5.99E-04	5.96E-04	5.92E-04	5.89E-04	5.85E-04	2.00E-02	3.50E-01
benzene	7.11E-06	2.09E-07	2.09E-07	6.27E-07	1.18E-02	1.18E-02	1.17E-02	1.16E-02	1.16E-02	1.15E-02	1.14E-02	1.14E-02	1.13E-02	1.12E-02	1.12E-02	1.11E-02	3.00E+01	3.00E+00
cumene	3.40E-08	1.00E-09	1.00E-09	3.00E-09	5.67E-05	5.64E-05	5.60E-05	5.57E-05	5.54E-05	5.51E-05	5.48E-05	5.45E-05	5.41E-05	5.38E-05	5.35E-05	5.32E-05	4.00E+02	NA
cyclohexane	1.77E-06	5.20E-08	5.20E-08	1.56E-07	2.95E-03	2.93E-03	2.91E-03	2.90E-03	2.88E-03	2.86E-03	2.85E-03	2.83E-03	2.82E-03	2.80E-03	2.78E-03	2.77E-03	6.00E+03	NA
ethylbenzene	2.07E-05	8.90E-08	1.71E-06	1.58E-05	5.04E-03	5.02E-03	4.99E-03	4.96E-03	4.93E-03	4.90E-03	4.87E-03	4.85E-03	4.82E-03	4.79E-03	4.76E-03	4.73E-03	1.00E+03	2.00E+03
ethylene	1.83E-05	5.39E-07	5.39E-07	1.62E-06	3.05E-02	3.04E-02	3.02E-02	3.00E-02	2.98E-02	2.97E-02	2.95E-02	2.94E-02	2.92E-02	2.90E-02	2.88E-02	2.87E-02	NA	NA
formaldehyde	4.56E-06	1.34E-07	1.34E-07	4.02E-07	7.59E-03	7.55E-03	7.51E-03	7.47E-03	7.42E-03	7.38E-03	7.34E-03	7.30E-03	7.25E-03	7.21E-03	7.17E-03	7.13E-03	9.80E+00	9.00E+00
hexane, n-	4.59E-06	1.35E-07	1.35E-07	4.05E-07	7.65E-03	7.61E-03	7.57E-03	7.52E-03	7.48E-03	7.44E-03	7.39E-03	7.35E-03	7.31E-03	7.27E-03	7.22E-03	7.18E-03	7.00E+02	7.00E+03
isoprene, except from vegetative emission sources	4.08E-07	1.20E-08	1.20E-08	3.60E-08	6.80E-04	6.76E-04	6.72E-04	6.69E-04	6.65E-04	6.61E-04	6.57E-04	6.53E-04	6.50E-04	6.46E-04	6.42E-04	6.38E-04	NA	NA
methyl alcohol	3.40E-07	1.00E-08	1.00E-08	3.00E-08	5.67E-04	5.64E-04	5.60E-04	5.57E-04	5.54E-04	5.51E-04	5.48E-04	5.45E-04	5.41E-04	5.38E-04	5.35E-04	5.32E-04	2.00E+04	4.00E+03
methyl ethyl ketone	6.80E-08	2.00E-09	2.00E-09	6.00E-09	1.13E-04	1.13E-04	1.12E-04	1.11E-04	1.11E-04	1.10E-04	1.10E-04	1.09E-04	1.08E-04	1.08E-04	1.07E-04	1.06E-04	5.00E+03	NA
naphthalene	1.36E-07	4.00E-09	4.00E-09	1.20E-08	2.27E-04	2.25E-04	2.24E-04	2.23E-04	2.22E-04	2.20E-04	2.19E-04	2.18E-04	2.17E-04	2.15E-04	2.14E-04	2.13E-04	3.00E+00	9.00E+00
propional dehyde	1.02E-07	3.00E-09	3.00E-09	9.00E-09	1.70E-04	1.69E-04	1.68E-04	1.67E-04	1.66E-04	1.65E-04	1.64E-04	1.63E-04	1.62E-04	1.61E-04	1.61E-04	1.60E-04	8.00E+00	NA
propylene	8.81E-06	2.59E-07	5.39E-07	7.77E-07	1.47E-02	1.46E-02	1.45E-02	1.44E-02	1.43E-02	1.42E-02	1.41E-02	1.40E-02	1.39E-02	1.38E-02	1.38E-02	1.37E-02	3.00E+03	3.00E+03
styrene	3.40E-07	1.00E-08	1.00E-08	3.00E-08	5.67E-04	5.64E-04	5.60E-04	5.57E-04	5.54E-04	5.51E-04	5.48E-04	5.45E-04	5.41E-04	5.38E-04	5.35E-04	5.32E-04	1.00E+03	9.00E+02
toluene	6.56E-05	4.87E-07	5.00E-06	4.47E-05	2.76E-02	2.74E-02	2.73E-02	2.71E-02	2.70E-02	2.68E-02	2.67E-02	2.65E-02	2.64E-02	2.62E-02	2.61E-02	2.59E-02	5.00E+03	3.00E+02
xylene (total)	4.22E-05	4.07E-07	3.02E-06	2.62E-05	2.31E-02	2.29E-02	2.28E-02	2.27E-02	2.26E-02	2.24E-02	2.23E-02	2.22E-02	2.20E-02	2.19E-02	2.18E-02	2.16E-02	1.00E+02	7.00E+02
aluminum	4.25E-04	2.13E-04	1.99E-05	2.16E-04	1.85E-03	9.96E-03	1.81E-02	2.62E-02	3.43E-02	4.24E-02	5.05E-02	5.86E-02	6.67E-02	7.48E-02	8.29E-02	9.10E-02	5.00E+00	NA
ammonium Ion	7.66E-07	3.57E-07	3.57E-08	3.67E-07	5.06E-05	2.72E-04	4.93E-04	7.14E-04	9.35E-04	1.16E-03	1.38E-03	1.60E-03	1.82E-03	2.04E-03	2.26E-03	2.48E-03	1.00E+02	2.00E+02
antimony	8.49E-08	4.26E-08	3.99E-09	4.31E-08	1.18E-06	6.33E-06	1.15E-05	1.66E-05	2.18E-05	2.70E-05	3.21E-05	3.73E-05	4.24E-05	4.76E-05	5.27E-05	5.79E-05	NA	NA
arsenic	1.14E-07	5.41E-08	5.24E-09	5.54E-08	3.00E-07	1.60E-06	2.91E-06	4.21E-06	5.51E-06	6.81E-06	8.11E-06	9.42E-06	1.07E-05	1.20E-05	1.33E-05	1.46E-05	1.50E-02	1.50E-02
barium	4.30E-05	3.77E-06	1.29E-06	7.07E-06	4.27E-04	2.23E-03	4.04E-03	5.84E-03	7.65E-03	9.45E-03	1.13E-02	1.31E-02	1.49E-02	1.67E-02	1.85E-02	2.03E-02	5.00E-01	NA
bromine	2.08E-07	7.98E-08	8.39E-09	8.35E-08	7.83E-07	3.23E-06	5.68E-06	8.13E-06	1.06E-05	1.30E-05	1.55E-05	1.79E-05	2.04E-05	2.28E-05	2.53E-05	2.77E-05	NA	NA
cadmium	1.74E-07	8.74E-08	8.19E-09	8.85E-08	5.20E-08	2.79E-07	5.07E-07	7.34E-07	9.62E-07	1.19E-06	1.42E-06	1.64E-06	1.87E-06	2.10E-06	2.33E-06	2.55E-06	1.00E-02	2.00E-02
chlorine	2.44E-05	9.64E-06	1.00E-06	1.00E-05	6.82E-05	2.33E-04	3.98E-04	5.63E-04	7.28E-04	8.93E-04	1.06E-03	1.22E-03	1.39E-03	1.55E-03	1.72E-03	1.88E-03	1.50E-01	2.00E-01
chromium (VI)	1.02E-07	3.12E-08	3.97E-09	3.62E-08	4.80E-07	2.46E-06	4.43E-06	6.41E-06	8.41E-06	1.04E-05	1.24E-05	1.44E-05	1.63E-05	1.83E-05	2.03E-05	2.23E-05	1.00E-01	2.00E-01
cobalt	6.23E-07	3.02E-07	2.84E-08	3.06E-07	6.48E-07	2.56E-06	4.47E-06	6.39E-06	8.30E-06	1.02E-05	1.21E-05	1.40E-05	1.59E-05	1.79E-05	1.98E-05	2.17E-05	6.00E-03	NA
copper	8.89E-06	6.59E-07	2.64E-07	1.36E-06	8.99E-05	4.68E-04	8.47E-04	1.23E-03	1.60E-03	1.98E-03	2.36E-03	2.74E-03	3.12E-03	3.50E-03	3.87E-03	4.25E-03	NA	NA
lead	3.20E-06	1.57E-06	1.50E-07	1.60E-06	2.79E-06	1.49E-05	2.69E-05	3.90E-05	5.10E-05	6.31E-05	7.51E-05	8.74E-05	9.94E-05	1.12E-04	1.24E-04	1.36E-04	NA	NA
manganese	6.39E-06	2.63E-06	2.77E-07	2.77E-06	2.70E-05	1.42E-04	2.58E-04	3.73E-04	4.88E-04	6.04E-04	7.19E-04	8.35E-04	9.50E-04	1.07E-03	1.18E-03	1.30E-03	5.00E-02	9.00E-02
mercury	8.94E-08	4.48E-08	4.20E-09	4.54E-08	1.56E-07	8.38E-07	1.52E-06	2.20E-06	2.89E-06	3.57E-06	4.25E-06	4.93E-06	5.62E-06	6.30E-06	6.98E-06	7.66E-06	3.00E-01	3.00E-02
nickel	8.38E-07	1.91E-07	2.97E-08	2.33E-07	5.50E-06	2.78E-05	5.01E-05	7.25E-05	9.48E-05	1.17E-04	1.39E-04	1.62E-04	1.84E-04	2.06E-04	2.29E-04	2.51E-04	9.00E-02	1.40E-02
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA
phosphorus	9.10E-06	4.45E-06	4.28E-07	4.53E-06	4.92E-05	2.64E-04	4.79E-04	6.94E-04	9.09E-04	1.12E-03	1.34E-03	1.55E-03	1.77E-03	1.98E-03	2.20E-03	2.41E-03	NA	NA
selenium	3.16E-08	7.52E-09	1.23E-09	9.21E-09	2.18E-07	1.14E-06	2.06E-06	2.98E-06	3.91E-06	4.83E-06	5.75E-06	6.67E-06	7.59E-06	8.52E-06	9.44E-06	1.04E-05	2.00E+01	2.00E+01
silicon	1.14E-03	5.49E-04	5.26E-05	5.60E-04	5.77E-03	3.10E-02	5.61E-02	8.13E-02	1.07E-01	1.32E-01	1.57E-01	1.82E-01	2.07E-01	2.32E-01	2.58E-01	2.83E-01	3.00E+00	3.00E+00
silver	4.47E-08	2.24E-08	2.10E-09	2.27E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA
sulfates	6.86E-05	1.42E-05	1.93E-06	1.65E-05	5.20E-04	1.96E-03	3.39E-03	4.82E-03	6.25E-03	7.68E-03	9.11E-03	1.05E-02	1.20E-02	1.34E-02	1.48E-02	1.63E-02	NA	NA
thallium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.93E-08	3.73E-07	6.76E-07	9.79E-07	1.28E-06	1.59E-06	1.89E-06	2.19E-06	2.50E-06	2.80E-06	3.10E-06	3.41E-06	NA	NA
vanadium	1.95E-06	7.61E-07	8.27E-08	8.11E-07	6.19E-06	3.25E-05	5.88E-05	8.50E-05	1.11E-04	1.38E-04	1.64E-04	1.90E-04	2.16E-04	2.43E-04	2.69E-04	2.95E-04	1.00E-01	NA
zinc	4.24E-06	1.55E-06	1.98E-07	1.69E-06	2.81E-05	1.48E-04	2.69E-04	3.89E-04	5.09E-04	6.29E-04	7.49E-04	8.70E-04	9.90E-04	1.11E-03	1.23E-03	1.35E-03	NA	NA
Diesel PM	1.23E-03	2.90E-04	6.00E-05	2.90E-04	4.55E-05	2.88E-04	5.31E-04	7.74E-04	1.02E-03	1.26E-03	1.50E-03	1.74E-03	1.99E-03	2.23E-03	2.47E-03	2.72E-03	5.00E+00	5.00E+00

[1] Commercial Maximum Grid No. 832

NA = Not Available ug/m^3 = micrograms per cubic meter
NC = Not Calculated mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-4.1A
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project Operations
with 2024-2027 Mitigated Construction - Lifetime Exposure, 30-Year Adult Resident Scenario
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	3rd Trimester	Ages 0<2	Ages 2<9	Ages 2<16	Ages 16<30	Ages 16<70
Daily Breathing Rate (DBR)	361 L/kg-d	1090 L/kg-d	861 L/kg-d	745 L/kg-d	335 L/kg-d	280 L/kg-d
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L
Age-adjustment (ASF)	10 unitless	10 unitless	3 unitless	3 unitless	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.00357 unitless	0.01429 unitless	0.01429 unitless	0.01429 unitless	0.2 unitless	0.771 unitless
Fraction of Time at Home (FAH)	1.00 unitless	1.00 unitless	1.00 unitless	1 unitless	0.73 unitless	0.73 unitless

	Start Age	End Age
Child Resident	0	9 Year
School Child	7	18 Year
30-year Resident	0	30 Year
70-year Resident	0	70 Year

	Concentration at Location w/Maximum Risk (ug/m^3)																Toxicity Criteria	
	Construction by Year				Operation by Year												EPA Inhalation CPF	CalEPA Inhalation CPF
	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	(mg/kg-day)$^{-1}$	(mg/kg-day)$^{-1}$
TAC																		
1,2,4-trimethylbenzene	3.85E-06	0.00E+00	0.00E+00	8.20E-08	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.27E-02	1.27E-02	1.27E-02	1.27E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	NA	NA
1,3-butadiene	2.16E-06	0.00E+00	0.00E+00	4.60E-08	7.09E-03	7.07E-03	7.08E-03	7.09E-03	7.11E-03	7.12E-03	7.14E-03	7.15E-03	7.16E-03	7.18E-03	7.19E-03	7.21E-03	1.05E-01	6.00E-01
2,2,4-trimethylpentane	9.17E-06	0.00E+00	0.00E+00	1.95E-07	2.99E-02	3.00E-02	3.00E-02	3.01E-02	3.01E-02	3.02E-02	3.03E-02	3.03E-02	3.04E-02	3.04E-02	3.05E-02	3.05E-02	NA	NA
acetaldehyde	1.13E-06	0.00E+00	0.00E+00	2.40E-08	3.68E-03	3.69E-03	3.69E-03	3.70E-03	3.71E-03	3.72E-03	3.72E-03	3.73E-03	3.74E-03	3.74E-03	3.75E-03	3.76E-03	7.70E-03	1.00E-02
acrolein	5.17E-07	0.00E+00	0.00E+00	1.10E-08	1.69E-03	1.69E-03	1.69E-03	1.70E-03	1.70E-03	1.71E-03	1.71E-03	1.71E-03	1.72E-03	1.72E-03	1.72E-03	NA	NA	NA
benzene	9.82E-06	0.00E+00	0.00E+00	2.09E-07	3.22E-02	3.21E-02	3.22E-02	3.22E-02	3.23E-02	3.24E-02	3.24E-02	3.25E-02	3.26E-02	3.26E-02	3.27E-02	3.27E-02	2.73E-02	1.00E-01
cumene	4.70E-08	0.00E+00	0.00E+00	1.00E-09	1.53E-04	1.54E-04	1.54E-04	1.54E-04	1.55E-04	1.55E-04	1.55E-04	1.55E-04	1.56E-04	1.56E-04	1.56E-04	1.57E-04	NA	NA
cyclohexane	2.44E-06	0.00E+00	0.00E+00	5.20E-08	7.97E-03	7.99E-03	8.00E-03	8.02E-03	8.04E-03	8.05E-03	8.07E-03	8.08E-03	8.10E-03	8.11E-03	8.13E-03	8.15E-03	NA	NA
ethylbenzene	1.44E-05	0.00E+00	6.96E-07	7.98E-06	1.36E-02	1.37E-02	1.37E-02	1.37E-02	1.38E-02	1.38E-02	1.38E-02	1.38E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02	8.75E-03	8.70E-03
ethylene	2.53E-05	0.00E+00	0.00E+00	5.39E-07	8.26E-02	8.28E-02	8.30E-02	8.31E-02	8.33E-02	8.35E-02	8.36E-02	8.38E-02	8.39E-02	8.41E-02	8.43E-02	8.44E-02	NA	NA
formaldehyde	6.30E-06	0.00E+00	0.00E+00	1.34E-07	2.05E-02	2.06E-02	2.06E-02	2.07E-02	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02	2.09E-02	2.10E-02	4.55E-02	2.10E-02
hexane, n-	6.35E-06	0.00E+00	0.00E+00	1.35E-07	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02	2.09E-02	2.10E-02	2.10E-02	2.11E-02	2.11E-02	2.11E-02	NA	NA
isoprene, except from vegetative emission sources	5.64E-07	0.00E+00	0.00E+00	1.20E-08	1.84E-03	1.84E-03	1.85E-03	1.85E-03	1.85E-03	1.86E-03	1.86E-03	1.87E-03	1.87E-03	1.87E-03	1.88E-03	1.88E-03	NA	NA
methyl alcohol	4.70E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03	1.56E-03	1.56E-03	1.57E-03	NA	NA	NA
methyl ethyl ketone	9.40E-08	0.00E+00	0.00E+00	2.00E-09	3.07E-04	3.07E-04	3.08E-04	3.08E-04	3.09E-04	3.10E-04	3.10E-04	3.11E-04	3.11E-04	3.12E-04	3.13E-04	3.13E-04	NA	NA
naphthalene	1.88E-07	0.00E+00	0.00E+00	4.00E-09	6.13E-04	6.14E-04	6.16E-04	6.17E-04	6.18E-04	6.19E-04	6.21E-04	6.22E-04	6.23E-04	6.24E-04	6.25E-04	6.27E-04	1.19E-01	1.20E-01
propionaldehyde	1.41E-07	0.00E+00	0.00E+00	3.00E-09	4.60E-04	4.61E-04	4.62E-04	4.63E-04	4.64E-04	4.64E-04	4.65E-04	4.66E-04	4.67E-04	4.68E-04	4.69E-04	4.70E-04	NA	NA
propylene	1.22E-05	0.00E+00	0.00E+00	2.59E-07	3.97E-02	3.98E-02	3.99E-02	3.99E-02	4.00E-02	4.01E-02	4.02E-02	4.03E-02	4.03E-02	4.04E-02	4.05E-02	4.06E-02	NA	NA
styrene	4.70E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03	1.56E-03	1.56E-03	1.57E-03	NA	NA
toluene	5.13E-05	0.00E+00	1.94E-06	2.24E-05	7.47E-02	7.48E-02	7.50E-02	7.51E-02	7.53E-02	7.54E-02	7.55E-02	7.57E-02	7.58E-02	7.60E-02	7.61E-02	7.63E-02	NA	NA
xylene (total)	3.85E-05	0.00E+00	1.12E-06	1.31E-05	6.24E-02	6.25E-02	6.26E-02	6.28E-02	6.29E-02	6.30E-02	6.31E-02	6.33E-02	6.34E-02	6.35E-02	6.36E-02	6.38E-02	NA	NA
aluminum	3.15E-04	1.08E-04	1.04E-05	1.09E-04	5.63E-04	2.16E-03	3.75E-03	5.34E-03	6.94E-03	8.53E-03	1.01E-02	1.17E-02	1.33E-02	1.49E-02	1.65E-02	1.81E-02	NA	NA
ammonium Ion	6.04E-07	1.80E-07	1.77E-08	1.85E-07	1.53E-05	5.88E-05	1.02E-04	1.46E-04	1.89E-04	2.33E-04	2.76E-04	3.20E-04	3.63E-04	4.07E-04	4.50E-04	4.94E-04	NA	NA
antimony	6.29E-08	2.17E-08	2.09E-09	2.18E-08	3.58E-07	1.37E-06	2.39E-06	3.40E-06	4.41E-06	5.43E-06	6.44E-06	7.46E-06	8.47E-06	9.48E-06	1.05E-05	1.15E-05	NA	NA
arsenic	9.01E-08	2.75E-08	2.74E-09	2.80E-08	9.12E-08	3.47E-07	6.03E-07	8.59E-07	1.12E-06	1.37E-06	1.63E-06	1.88E-06	2.14E-06	2.40E-06	2.65E-06	2.91E-06	1.51E+01	1.20E+01
barium	6.15E-05	1.63E-06	6.49E-07	3.27E-06	1.30E-04	4.85E-04	8.39E-04	1.19E-03	1.55E-03	1.90E-03	2.26E-03	2.61E-03	2.97E-03	3.32E-03	3.68E-03	4.03E-03	NA	NA
bromine	1.93E-07	4.03E-08	4.25E-09	4.20E-08	2.41E-07	6.84E-07	1.13E-06	1.57E-06	2.01E-06	2.45E-06	2.90E-06	3.34E-06	3.78E-06	4.22E-06	4.67E-06	5.11E-06	NA	NA
cadmium	1.26E-07	4.45E-08	4.29E-09	4.49E-08	1.58E-08	6.05E-08	1.05E-07	1.50E-07	1.95E-07	2.39E-07	2.84E-07	3.29E-07	3.74E-07	4.18E-07	4.63E-07	5.08E-07	6.30E+00	1.90E+01
chlorine	2.19E-05	4.86E-06	4.83E-07	5.03E-06	2.12E-05	4.82E-05	7.52E-05	1.02E-04	1.29E-04	1.56E-04	1.83E-04	2.10E-04	2.37E-04	2.64E-04	2.91E-04	3.18E-04	NA	NA
chromium (VI)	1.09E-07	1.55E-08	2.04E-09	1.75E-08	1.46E-07	5.34E-07	9.22E-07	1.31E-06	1.70E-06	2.09E-06	2.47E-06	2.86E-06	3.25E-06	3.64E-06	4.03E-06	4.41E-06	4.20E+01	5.10E+02
cobalt	4.77E-07	1.54E-07	1.46E-08	1.55E-07	2.00E-07	5.38E-07	8.75E-07	1.21E-06	1.55E-06	1.89E-06	2.22E-06	2.56E-06	2.90E-06	3.24E-06	3.57E-06	3.91E-06	NA	NA
copper	1.29E-05	2.72E-07	1.30E-07	6.23E-07	2.73E-05	1.02E-04	1.76E-04	2.50E-04	3.25E-04	3.99E-04	4.73E-04	5.48E-04	6.22E-04	6.97E-04	7.71E-04	8.45E-04	NA	NA
lead	2.42E-06	8.00E-07	7.76E-08	8.10E-07	8.46E-07	3.22E-06	5.60E-06	7.97E-06	1.03E-05	1.27E-05	1.51E-05	1.75E-05	1.99E-05	2.22E-05	2.46E-05	2.70E-05	NA	4.20E-02
manganese	5.88E-06	1.33E-06	1.44E-07	1.39E-06	8.22E-06	3.09E-05	5.35E-05	7.61E-05	9.88E-05	1.21E-04	1.44E-04	1.67E-04	1.89E-04	2.12E-04	2.35E-04	2.57E-04	NA	NA
mercury	6.62E-08	2.28E-08	2.20E-09	2.30E-08	4.74E-08	1.82E-07	3.16E-07	4.50E-07	5.84E-07	7.18E-07	8.52E-07	9.87E-07	1.12E-06	1.26E-06	1.39E-06	1.52E-06	NA	NA
nickel	1.00E-06	9.32E-08	1.50E-08	1.14E-07	1.67E-06	6.02E-06	1.04E-05	1.47E-05	1.91E-05	2.34E-05	2.78E-05	3.21E-05	3.65E-05	4.08E-05	4.52E-05	4.95E-05	8.40E-01	9.10E-01
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA
phosphorus	6.88E-06	2.26E-06	2.18E-07	2.29E-06	1.49E-05	5.72E-05	9.95E-05	1.42E-04	1.84E-04	2.26E-04	2.69E-04	3.11E-04	3.53E-04	3.95E-04	4.38E-04	4.80E-04	NA	NA
selenium	3.65E-08	3.62E-09	5.30E-10	4.45E-09	6.60E-08	2.47E-07	4.29E-07	6.10E-07	7.91E-07	9.72E-07	1.15E-06	1.33E-06	1.52E-06	1.70E-06	1.88E-06	2.06E-06	NA	NA
silicon	8.81E-04	2.79E-04	2.75E-05	2.83E-04	1

Table 1-4.1B
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project Operations with 2024-2027 Mitigated Construction - Lifetime Exposure, 70-Year Adult Resident Scenario
(Based on Peak Location of Residential Cancer Risks[1])

Equations
Risk = Car/'DBR*EF*CP'A*ASF*ED*FAH'CPF
HQ = Car / REL
Where: HQ = Hazard Quotient — Car = Exposure Concentration
DBR = Daily Breathing Rate — ASF = Age sensitivity factor
EF = Fraction of Year — ED = Fraction of Averaging time
A = Absorption Fraction — FAH = Fraction of Time at Home
CF = Conversion Factor — CPF = Cancer Potency Factor

	Cancer Risk to Adult 70-Year Resident																		
	Construction by Year				Operation by Year														TOTAL Cancer Risk to Resident for Max Location
TAC	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035 - 2093			
1,2,4-trimethylbenzene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
1,3-butadiene	2.10E-10	0.00E+00	0.00E+00	8.45E-13	6.84E-07	6.33E-07	1.30E-07	1.30E-07	1.31E-07	1.31E-07	1.31E-07	1.31E-07	1.32E-07	1.32E-07	1.32E-07	1.34E-06			3.86E-06
2,2,4-trimethylpentane	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
acetaldehyde	1.82E-12	0.00E+00	0.00E+00	7.35E-15	5.95E-09	5.50E-09	1.13E-09	1.13E-09	1.14E-09	1.14E-09	1.14E-09	1.14E-09	1.14E-09	1.15E-09	1.15E-09	1.16E-08			3.34E-08
acrolein	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
benzene	1.55E-10	0.00E+00	0.00E+00	6.40E-13	5.18E-07	4.79E-07	9.85E-08	9.87E-08	9.86E-08	9.91E-08	9.91E-08	9.95E-08	9.97E-08	9.98E-08	1.00E-07	1.01E-06			2.90E-06
cumene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
cyclohexane	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
ethylbenzene	2.02E-11	0.00E+00	1.85E-13	2.12E-12	1.92E-08	1.78E-08	3.65E-09	3.66E-09	3.66E-09	3.67E-09	3.68E-09	3.68E-09	3.69E-09	3.70E-09	3.71E-09	3.76E-08			1.08E-07
ethylene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
formaldehyde	2.14E-11	0.00E+00	0.00E+00	8.62E-14	6.98E-08	6.45E-08	1.33E-08	1.33E-08	1.33E-08	1.33E-08	1.34E-08	1.34E-08	1.34E-08	1.34E-08	1.35E-08	1.37E-07			3.91E-07
hexane, n-hexane, except from vegetative emission sources	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
methyl alcohol	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
methyl ethyl ketone	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
naphthalene	3.65E-12	0.00E+00	0.00E+00	1.47E-14	1.19E-08	1.10E-08	2.26E-09	2.27E-09	2.27E-09	2.28E-09	2.28E-09	2.28E-09	2.29E-09	2.29E-09	2.30E-09	2.33E-08			6.67E-08
propionaldehyde	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
propylene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
styrene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
toluene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
xylene (total)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
aluminum	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
ammonium ion	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
antimony	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
arsenic	1.75E-10	4.92E-11	1.01E-12	1.03E-11	1.77E-10	6.22E-10	2.22E-10	3.16E-10	4.10E-10	5.04E-10	5.98E-10	6.92E-10	7.86E-10	8.80E-10	9.74E-10	1.08E-08			1.72E-08
barium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
bromine	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
cadmium	3.13E-10	9.96E-11	1.97E-12	2.06E-11	3.83E-11	1.36E-10	4.83E-11	6.89E-11	8.94E-11	1.10E-10	1.31E-10	1.51E-10	1.72E-10	1.92E-10	2.13E-10	2.36E-09			4.14E-09
chlorine	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
chromium (VI)	9.02E-09	1.18E-09	3.19E-11	2.73E-10	1.20E-08	4.07E-08	1.44E-08	2.05E-08	2.65E-08	3.26E-08	3.86E-08	4.47E-08	5.07E-08	5.68E-08	6.29E-08	6.97E-07			1.11E-06
cobalt	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
copper	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
lead	1.64E-11	5.01E-12	9.98E-14	1.04E-12	5.74E-12	2.02E-11	7.20E-12	1.03E-11	1.33E-11	1.64E-11	1.94E-11	2.25E-11	2.55E-11	2.86E-11	3.16E-11	3.51E-10			5.74E-10
manganese	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
mercury	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
nickel	1.47E-10	1.27E-11	4.17E-13	3.18E-12	2.46E-10	8.18E-10	2.89E-10	4.10E-10	5.31E-10	6.52E-10	7.74E-10	8.95E-10	1.02E-09	1.14E-09	1.26E-09	1.40E-08			2.21E-08
non-phosphate phosphorous	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
phosphorus	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
selenium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
silicon	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
silver	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
sulfates	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
thallium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
vanadium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
zinc	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
Diesel PM	6.00E-08	8.21E-09	3.37E-10	1.68E-09	1.28E-08	3.55E-09	1.21E-09	1.70E-09	2.19E-09	2.67E-09	3.16E-09	3.65E-09	4.13E-09	4.62E-09	5.11E-09	5.66E-08			1.61E-07
TOTAL	7.06E-08	9.56E-09	3.72E-10	2.00E-09	1.32E-06	1.26E-06	2.65E-07	2.72E-07	2.80E-07	2.87E-07	2.94E-07	3.01E-07	3.09E-07	3.16E-07	3.23E-07	3.34E-06			8.65E-06

NA = Not Available — ug/m^3 = micrograms per cubic meter
NC = Not Calculated — mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-4.1A
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project Operations with 2024-2027 Mitigated Construction - Lifetime Exposure, 30-Year Adult Resident Scenario
(Based on Peak Location of Residential Cancer Risks[1])

Equations
Risk = Car/'DBR*EF*CP'A*ASF*ED*FAH'CPF
HQ = Car / REL
Where: HQ = Hazard Quotient — Car = Exposure Concentration
DBR = Daily Breathing Rate — ASF = Age sensitivity factor
EF = Fraction of Year — ED = Fraction of Averaging time
A = Absorption Fraction — FAH = Fraction of Time at Home
CF = Conversion Factor — CPF = Cancer Potency Factor

	Cancer Risk to Adult 30-Year Resident																		
	Construction by Year				Operation by Year														TOTAL Cancer Risk to Resident for Max Location
TAC	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Ops 2035 - 2046			
1,2,4-trimethylbenzene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
1,3-butadiene	2.10E-10	0.00E+00	0.00E+00	8.45E-13	6.84E-07	6.33E-07	1.30E-07	1.30E-07	1.31E-07	1.31E-07	1.31E-07	1.32E-07	1.32E-07	1.32E-07	1.32E-07	8.65E-07			3.39E-06
2,2,4-trimethylpentane	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
acetaldehyde	1.82E-12	0.00E+00	0.00E+00	7.35E-15	5.95E-09	5.50E-09	1.13E-09	1.13E-09	1.14E-09	1.14E-09	1.14E-09	1.14E-09	1.14E-09	1.15E-09	1.15E-09	7.52E-09			2.92E-08
acrolein	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
benzene	1.55E-10	0.00E+00	0.00E+00	6.40E-13	5.18E-07	4.79E-07	9.85E-08	9.87E-08	9.86E-08	9.91E-08	9.91E-08	9.95E-08	9.97E-08	9.98E-08	1.00E-07	6.55E-07			2.55E-06
cumene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
cyclohexane	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
ethylbenzene	2.02E-11	0.00E+00	1.85E-13	2.12E-12	1.92E-08	1.78E-08	3.65E-09	3.66E-09	3.66E-09	3.67E-09	3.68E-09	3.68E-09	3.69E-09	3.70E-09	3.71E-09	2.43E-08			9.43E-08
ethylene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
formaldehyde	2.14E-11	0.00E+00	0.00E+00	8.62E-14	6.98E-08	6.45E-08	1.33E-08	1.33E-08	1.33E-08	1.33E-08	1.34E-08	1.34E-08	1.34E-08	1.34E-08	1.35E-08	8.82E-08			3.43E-07
hexane, n-hexane, except from vegetative emission sources	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
methyl alcohol	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
methyl ethyl ketone	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
naphthalene	3.65E-12	0.00E+00	0.00E+00	1.47E-14	1.19E-08	1.10E-08	2.26E-09	2.27E-09	2.27E-09	2.28E-09	2.28E-09	2.28E-09	2.29E-09	2.29E-09	2.30E-09	1.50E-08			5.85E-08
propionaldehyde	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
propylene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
styrene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
toluene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
xylene (total)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
aluminum	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
ammonium ion	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
antimony	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
arsenic	1.75E-10	4.92E-11	1.01E-12	1.03E-11	1.77E-10	6.22E-10	2.22E-10	3.16E-10	4.10E-10	5.04E-10	5.98E-10	6.92E-10	7.86E-10	8.80E-10	9.74E-10	6.98E-09			1.34E-08
barium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
bromine	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
cadmium	3.13E-10	9.96E-11	1.97E-12	2.06E-11	3.83E-11	1.36E-10	4.83E-11	6.89E-11	8.94E-11	1.10E-10	1.31E-10	1.51E-10	1.72E-10	1.92E-10	2.13E-10	1.52E-09			3.31E-09
chlorine	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
chromium (VI)	9.02E-09	1.18E-09	3.19E-11	2.73E-10	1.20E-08	4.07E-08	1.44E-08	2.05E-08	2.65E-08	3.26E-08	3.86E-08	4.47E-08	5.07E-08	5.68E-08	6.29E-08	4.50E-07			8.61E-07
cobalt	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
copper	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
lead	1.64E-11	5.01E-12	9.98E-14	1.04E-12	5.74E-12	2.02E-11	7.20E-12	1.03E-11	1.33E-11	1.64E-11	1.94E-11	2.25E-11	2.55E-11	2.86E-11	3.16E-11	2.27E-10			4.50E-10
manganese	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
mercury	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
nickel	1.47E-10	1.27E-11	4.17E-13	3.18E-12	2.46E-10	8.18E-10	2.89E-10	4.10E-10	5.31E-10	6.52E-10	7.74E-10	8.95E-10	1.02E-09	1.14E-09	1.26E-09	9.01E-09			1.72E-08
non-phosphate phosphorous	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
phosphorus	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
selenium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
silicon	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
silver	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
sulfates	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
thallium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
vanadium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
zinc	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC
Diesel PM	6.00E-08	8.21E-09	3.37E-10	1.68E-09	1.28E-08	3.55E-09	1.21E-09	1.70E-09	2.19E-09	2.67E-09	3.16E-09	3.65E-09	4.13E-09	4.62E-09	5.11E-09	3.65E-08			1.41E-07
TOTAL	7.06E-08	9.56E-09	3.72E-10	2.00E-09	1.32E-06	1.26E-06	2.65E-07	2.72E-07	2.80E-07	2.87E-07	2.94E-07	3.01E-07	3.09E-07	3.16E-07	3.23E-07	2.16E-06			7.47E-06

NA = Not Available — ug/m^3 = micrograms per cubic meter
NC = Not Calculated — mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-4.1C
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project Operations with 2024-2027 Mitigated Construction - Lifetime Exposure, Child Resident Scenario
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	3rd Trimester	Ages 0<2	Ages 2<9		Start Age	End Age
Daily Breathing Rate (DBR)	361 L/kg-d	1090 L/kg-d	861 L/kg-d	Child Resident	0	9 Year
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless	School Child	7	18 Year
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless	30-year Resident	0	30 Year
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	70-year Resident	0	70 Year
Age-adjustment (ASF)	10 unitless	10 unitless	3 unitless			
Fraction of Averaging Time (ED)	0.00357 unitless	0.01429 unitless	0.01429 unitless			
Fraction of Time at Home (FAH)	1.00 unitless	1.00 unitless	1.00 unitless			

	Concentration at Location w/Maximum Risk (ug/m^3)												Toxicity Criteria	
	Construction by Year				Operation by Year								EPA	CalEPA
TAC	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	Inhalation CPF (mg/kg-day)$^{-1}$	Inhalation CPF (mg/kg-day)$^{-1}$
1,2,4-trimethylbenzene	3.85E-06	0.00E+00	0.00E+00	8.20E-08	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.27E-02	1.27E-02	1.27E-02	1.27E-02	1.28E-02	NA	NA
1,3-butadiene	2.16E-06	0.00E+00	0.00E+00	4.60E-08	7.05E-03	7.07E-03	7.08E-03	7.09E-03	7.11E-03	7.12E-03	7.14E-03	7.15E-03	7.16E-03	1.05E-01	6.00E-01
2,2,4-trimethylpentane	9.17E-06	0.00E+00	0.00E+00	1.95E-07	2.99E-02	3.00E-02	3.00E-02	3.01E-02	3.01E-02	3.02E-02	3.03E-02	3.03E-02	3.04E-02	NA	NA
acetaldehyde	1.13E-06	0.00E+00	0.00E+00	2.40E-08	3.68E-03	3.69E-03	3.69E-03	3.70E-03	3.71E-03	3.72E-03	3.72E-03	3.73E-03	3.74E-03	7.70E-03	1.00E-02
acrolein	5.17E-07	0.00E+00	0.00E+00	1.10E-08	1.69E-03	1.69E-03	1.69E-03	1.70E-03	1.70E-03	1.71E-03	1.71E-03	1.71E-03	1.72E-03	1.72E-03	NA
benzene	9.82E-06	0.00E+00	0.00E+00	2.09E-07	3.20E-02	3.21E-02	3.22E-02	3.22E-02	3.23E-02	3.24E-02	3.24E-02	3.25E-02	3.25E-02	2.73E-02	1.00E-01
cumene	4.70E-08	0.00E+00	0.00E+00	1.00E-09	1.53E-04	1.54E-04	1.54E-04	1.54E-04	1.55E-04	1.55E-04	1.55E-04	1.55E-04	1.56E-04	1.56E-04	1.57E-04	NA	NA
cyclohexane	2.44E-06	0.00E+00	0.00E+00	5.20E-08	7.97E-03	8.00E-03	8.01E-03	8.02E-03	8.04E-03	8.05E-03	8.07E-03	8.08E-03	8.10E-03	8.13E-03	8.15E-03	NA	NA
ethylbenzene	1.44E-05	0.00E+00	6.96E-07	7.98E-06	1.36E-02	1.37E-02	1.37E-02	1.37E-02	1.38E-02	1.38E-02	1.38E-02	1.38E-02	1.39E-02	8.75E-03	8.70E-03
ethylene	2.53E-05	0.00E+00	0.00E+00	5.39E-07	8.26E-02	8.28E-02	8.30E-02	8.31E-02	8.33E-02	8.35E-02	8.36E-02	8.38E-02	8.39E-02	NA	NA
formaldehyde	6.30E-06	0.00E+00	0.00E+00	1.34E-07	2.05E-02	2.06E-02	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02	2.10E-02	4.55E-02	2.10E-02
hexane, n-hexane, except from vegetative emission sources	5.64E-07	0.00E+00	0.00E+00	1.20E-08	1.84E-03	1.84E-03	1.85E-03	1.85E-03	1.86E-03	1.86E-03	1.87E-03	1.87E-03	NA	NA	NA
methyl alcohol	4.70E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03	NA	NA
methyl ethyl ketone	9.40E-08	0.00E+00	0.00E+00	2.00E-09	3.07E-04	3.07E-04	3.08E-04	3.08E-04	3.09E-04	3.10E-04	3.10E-04	3.11E-04	3.11E-04	NA	NA
naphthalene	1.89E-07	0.00E+00	0.00E+00	4.00E-09	6.16E-04	6.17E-04	6.18E-04	6.19E-04	6.21E-04	6.22E-04	6.23E-04	6.24E-04	6.25E-04	1.19E-01	1.20E-01
propionaldehyde	1.41E-07	0.00E+00	0.00E+00	3.00E-09	4.60E-04	4.61E-04	4.62E-04	4.63E-04	4.64E-04	4.64E-04	4.65E-04	4.66E-04	4.67E-04	4.84E-04	NA
propylene	1.22E-05	0.00E+00	0.00E+00	2.59E-07	3.97E-02	3.98E-02	3.99E-02	3.99E-02	4.00E-02	4.01E-02	4.02E-02	4.03E-02	4.03E-02	NA	NA
styrene	4.70E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03	NA	NA
toluene	5.13E-05	0.00E+00	1.94E-06	2.24E-05	7.47E-02	7.48E-02	7.50E-02	7.51E-02	7.53E-02	7.54E-02	7.55E-02	7.57E-02	7.58E-02	NA	NA
xylene (total)	3.55E-05	0.00E+00	1.12E-06	1.31E-05	6.24E-02	6.25E-02	6.26E-02	6.28E-02	6.29E-02	6.30E-02	6.31E-02	6.33E-02	6.34E-02	NA	NA
aluminum	3.15E-04	1.08E-04	1.04E-05	1.09E-04	5.63E-04	2.16E-03	3.75E-03	5.34E-03	6.94E-03	8.53E-03	1.01E-02	1.17E-02	1.33E-02	1.65E-02	1.81E-02
ammonium ion	6.04E-07	1.80E-07	1.77E-08	1.85E-07	1.53E-05	5.88E-05	1.02E-04	1.46E-04	1.89E-04	2.33E-04	2.76E-04	3.20E-04	3.63E-04	NA	NA
antimony	6.29E-08	2.17E-08	2.09E-09	2.19E-08	3.58E-07	1.37E-06	2.39E-06	3.40E-06	4.41E-06	5.43E-06	6.44E-06	7.45E-06	8.47E-06	NA	NA
arsenic	9.01E-08	2.75E-08	2.74E-09	2.80E-08	9.12E-08	3.47E-07	6.03E-07	8.59E-07	1.12E-06	1.37E-06	1.63E-06	1.88E-06	2.14E-06	1.51E+01	1.20E+01
barium	6.15E-05	1.63E-06	6.49E-07	3.27E-06	1.30E-04	4.85E-04	8.39E-04	1.19E-03	1.55E-03	1.90E-03	2.26E-03	2.61E-03	2.97E-03	NA	NA
bromine	1.93E-07	4.03E-08	4.25E-09	4.20E-08	2.41E-07	6.84E-07	1.13E-06	1.57E-06	2.01E-06	2.45E-06	2.90E-06	3.34E-06	3.78E-06	NA	NA
cadmium	1.29E-07	4.45E-08	4.29E-09	4.49E-08	1.58E-08	6.05E-08	1.05E-07	1.50E-07	1.95E-07	2.39E-07	2.84E-07	3.29E-07	3.74E-07	6.30E+00	1.50E+01
chlorine	2.19E-05	4.86E-06	4.83E-07	5.03E-06	2.12E-05	4.82E-05	7.52E-05	1.02E-04	1.29E-04	1.56E-04	1.83E-04	2.10E-04	2.37E-04	NA	NA
chromium (VI)	1.09E-07	1.55E-08	2.04E-09	1.75E-08	1.46E-07	5.34E-07	9.22E-07	1.31E-06	1.70E-06	2.09E-06	2.47E-06	2.86E-06	3.25E-06	4.20E+01	5.10E+02
cobalt	4.77E-07	1.54E-07	1.49E-08	1.55E-07	2.00E-07	5.38E-07	8.75E-07	1.21E-06	1.55E-06	1.89E-06	2.22E-06	2.56E-06	2.90E-06	3.24E-06	3.57E-06
copper	1.29E-05	2.72E-07	1.30E-07	6.23E-07	2.73E-05	1.02E-04	1.76E-04	2.50E-04	3.25E-04	3.99E-04	4.73E-04	5.48E-04	6.22E-04	NA	NA
lead	2.42E-06	8.00E-07	7.76E-08	8.10E-07	8.46E-07	3.22E-06	5.60E-06	7.97E-06	1.03E-05	1.27E-05	1.51E-05	1.75E-05	1.99E-05	NA	4.20E-02
manganese	5.68E-06	1.33E-06	1.44E-07	1.39E-06	8.22E-06	3.09E-05	5.35E-05	7.61E-05	9.88E-05	1.21E-04	1.44E-04	1.67E-04	1.89E-04	NA	NA
mercury	6.62E-08	2.28E-08	2.20E-09	2.30E-08	4.74E-08	1.82E-07	3.16E-07	4.50E-07	5.84E-07	7.18E-07	8.52E-07	9.87E-07	1.12E-06	NA	NA
nickel	1.00E-06	9.32E-08	1.50E-08	1.14E-07	1.67E-06	6.02E-06	1.04E-05	1.47E-05	1.91E-05	2.34E-05	2.78E-05	3.21E-05	3.65E-05	8.40E-01	9.10E-01
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA
phosphorus	6.88E-06	2.26E-06	2.18E-07	2.29E-06	1.49E-05	5.72E-05	9.95E-05	1.42E-04	1.84E-04	2.26E-04	2.69E-04	3.11E-04	3.53E-04	NA	NA
selenium	3.65E-08	3.62E-09	5.30E-10	4.45E-09	6.60E-08	2.47E-07	4.29E-07	6.10E-07	7.91E-07	9.72E-07	1.15E-06	1.33E-06	1.52E-06	NA	NA
silicon	8.81E-04	2.79E-04	2.75E-05	2.83E-04	1.75E-03	6.71E-03	1.17E-02	1.66E-02	2.16E-02	2.65E-02	3.15E-02	3.64E-02	4.14E-02	NA	NA
silver	3.31E-08	1.14E-08	1.10E-09	1.15E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA
sulfates	8.29E-05	7.05E-06	9.82E-07	8.14E-06	1.63E-04	4.09E-04	6.56E-04	9.02E-04	1.15E-03	1.39E

Table 1-4.1D
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project Operations
with 2024-2027 Mitigated Construction - Lifetime Exposure, School Child Scenario, 9-year and 12-year
(Based on Peak Location of Residential Cancer Risks[1])

Equations
Risk = Cair*DBR*EF*CF*A*ASF*ED*FAH*CPF
HQ = Cair / REL
Where: HQ = Hazard Quotient; Cair = Exposure Concentration; DBR = Daily Breathing Rate; ASF = Age sensitivity factor; EF = Fraction of Year; ED = Fraction of Averaging time; A = Absorption Fraction; FAH = Fraction of Time at Home; CF = Conversion Factor; CPF = Cancer Potency Factor

	Cancer Risk to School Child																2024-2032	2024-2035
	Construction by Year				Operation by Year												TOTAL Cancer Risk	TOTAL Cancer Risk
	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	9-yr School Child	12-yr School Child
TAC	Ages 2<9	Ages 2<9	Ages 2<16	Ages 2<16	Ages 2<9	Ages 2<9	Ages 2<16	Ages 2<16	Ages 2<16	Ages 2<16	Ages 2<16	Ages 2<16	Ages 2<16	Ages 16<30	Ages 16<30	Ages 16<30	for Max Location	for Max Location
1,2,4-trimethylbenzene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	3.41E-11	0.00E+00	0.00E+00	5.90E-13	1.11E-07	1.12E-07	9.08E-08	9.10E-08	9.11E-08	9.13E-08	9.15E-08	9.17E-08	9.19E-08	1.42E-08	1.42E-08	1.42E-08	8.62E-07	9.05E-07
2,2,4-trimethylpentane	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	2.97E-13	0.00E+00	0.00E+00	5.13E-15	9.68E-10	9.70E-10	7.89E-10	7.91E-10	7.93E-10	7.94E-10	7.96E-10	7.97E-10	7.99E-10	1.23E-10	1.23E-10	1.24E-10	7.50E-09	7.87E-09
acrolein	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
benzene	2.58E-11	0.00E+00	0.00E+00	4.47E-13	8.43E-08	8.44E-08	6.87E-08	6.89E-08	6.90E-08	6.92E-08	6.93E-08	6.94E-08	6.96E-08	1.07E-08	1.07E-08	1.08E-08	6.53E-07	6.85E-07
cumene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cyclohexane	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	3.29E-12	0.00E+00	1.29E-13	1.48E-12	3.12E-09	3.13E-09	2.55E-09	2.55E-09	2.56E-09	2.56E-09	2.57E-09	2.57E-09	2.58E-09	3.97E-10	3.98E-10	3.99E-10	2.42E-08	2.54E-08
ethylene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	3.48E-12	0.00E+00	0.00E+00	6.01E-14	1.13E-08	1.14E-08	9.26E-09	9.27E-09	9.29E-09	9.31E-09	9.33E-09	9.35E-09	9.37E-09	1.44E-09	1.45E-09	1.45E-09	8.79E-08	9.22E-08
hexane, n-	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
isoprene, except from vegetative emission sources	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
naphthalene	5.93E-13	0.00E+00	0.00E+00	1.03E-14	1.94E-09	1.94E-09	1.58E-09	1.58E-09	1.59E-09	1.59E-09	1.59E-09	1.59E-09	1.60E-09	2.46E-10	2.47E-10	2.47E-10	1.50E-08	1.57E-08
propionaldehyde	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
propylene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
styrene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
toluene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
xylene (total)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
aluminum	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ammonium ion	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
antimony	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
arsenic	2.84E-11	8.67E-12	7.03E-13	7.18E-12	2.88E-11	1.10E-10	1.55E-10	2.20E-10	2.86E-10	3.52E-10	4.17E-10	4.83E-10	5.49E-10	9.45E-11	1.05E-10	1.15E-10	2.65E-09	2.96E-09
barium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
bromine	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cadmium	5.09E-11	1.75E-11	1.38E-12	1.44E-11	6.23E-12	2.39E-11	3.37E-11	4.81E-11	6.24E-11	7.67E-11	9.11E-11	1.05E-10	1.20E-10	2.06E-11	2.28E-11	2.50E-11	6.52E-10	7.20E-10
chlorine	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
chromium (VI)	1.47E-09	2.08E-10	2.22E-11	1.91E-10	1.96E-09	7.16E-09	1.00E-08	1.43E-08	1.85E-08	2.27E-08	2.70E-08	3.12E-08	3.54E-08	6.10E-09	6.75E-09	7.40E-09	1.70E-07	1.90E-07
cobalt	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
copper	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
lead	2.67E-12	8.83E-13	6.97E-14	7.27E-13	9.34E-13	3.56E-12	5.02E-12	7.16E-12	9.29E-12	1.14E-11	1.36E-11	1.57E-11	1.78E-11	3.07E-12	3.40E-12	3.73E-12	8.88E-11	9.90E-11
manganese	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
mercury	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
nickel	2.40E-11	2.23E-12	2.91E-13	2.22E-12	4.00E-11	1.44E-10	2.02E-10	2.86E-10	3.71E-10	4.55E-10	5.40E-10	6.25E-10	7.09E-10	1.22E-10	1.35E-10	1.48E-10	3.40E-09	3.81E-09
non-phosphate phosphorous	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
phosphorus	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
selenium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silicon	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silver	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
sulfates	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
thallium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
vanadium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
zinc	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Diesel PM	9.84E-09	1.45E-09	2.35E-10	1.18E-09	2.07E-10	6.25E-10	8.48E-10	1.19E-09	1.53E-09	1.87E-09	2.21E-09	2.55E-09	2.89E-09	4.96E-10	5.48E-10	6.01E-10	2.69E-08	2.82E-08
TOTAL	1.15E-08	1.68E-09	2.60E-10	1.39E-09	2.15E-07	2.21E-07	1.85E-07	1.90E-07	1.95E-07	2.00E-07	2.05E-07	2.10E-07	2.15E-07	3.39E-08	3.47E-08	3.55E-08	1.85E-06	1.96E-06

NA = Not Available
NC = Not Calculated
ug/m^3 = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-4.1C
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project Operations
with 2024-2027 Mitigated Construction - Lifetime Exposure, Child Resident Scenario
(Based on Peak Location of Residential Cancer Risks[2])

Equations
Risk = Cair*DBR*EF*CF*A*ASF*ED*FAH*CPF
HQ = Cair / REL
Where: HQ = Hazard Quotient; Cair = Exposure Concentration; DBR = Daily Breathing Rate; ASF = Age sensitivity factor; EF = Fraction of Year; ED = Fraction of Averaging time; A = Absorption Fraction; FAH = Fraction of Time at Home; CF = Conversion Factor; CPF = Cancer Potency Factor

	Cancer Risk to Child Resident														2024-2029	2024-2032
	Construction by Year				Operation by Year										TOTAL Cancer Risk	TOTAL Cancer Risk
	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032		6-yr Child Resident	9-yr Child Resident
TAC															for Max Location	for Max Location
1,2,4-trimethylbenzene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	2.10E-10	0.00E+00	0.00E+00	9.77E-13	6.84E-07	6.33E-07	1.50E-07	1.51E-07	1.51E-07	1.51E-07	1.51E-07	1.51E-07	1.51E-07	1.52E-07	1.52E-06	2.38E-06
2,2,4-trimethylpentane	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	1.82E-12	0.00E+00	0.00E+00	8.49E-15	5.95E-09	5.50E-09	1.31E-09	1.31E-09	1.31E-09	1.31E-09	1.31E-09	1.31E-09	1.32E-09	1.32E-09	1.67E-08	2.07E-08
acrolein	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
benzene	1.59E-10	0.00E+00	0.00E+00	7.40E-13	5.18E-07	4.79E-07	1.14E-07	1.14E-07	1.14E-07	1.14E-07	1.15E-07	1.15E-07	1.15E-07	1.15E-07	1.45E-06	1.80E-06
cumene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cyclohexane	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	2.02E-11	0.00E+00	2.14E-13	2.46E-12	1.92E-08	1.78E-08	4.22E-09	4.23E-09	4.23E-09	4.24E-09	4.25E-09	4.26E-09	4.27E-09	5.39E-08	6.67E-08	
ethylene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	2.14E-11	0.00E+00	0.00E+00	9.96E-14	6.98E-08	6.45E-08	1.53E-08	1.54E-08	1.54E-08	1.54E-08	1.55E-08	1.55E-08	1.55E-08	1.96E-07	2.42E-07	
hexane, n-	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
isoprene, except from vegetative emission sources	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
naphthalene	3.65E-12	0.00E+00	0.00E+00	1.70E-14	1.19E-08	1.10E-08	2.61E-09	2.62E-09	2.62E-09	2.63E-09	2.63E-09	2.64E-09	2.65E-09	3.34E-08	4.13E-08	
propionaldehyde	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
propylene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
styrene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
toluene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
xylene (total)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
aluminum	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ammonium ion	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
antimony	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
arsenic	1.79E-10	4.92E-11	1.16E-12	1.19E-11	1.77E-10	6.22E-10	8.56E-10	3.89E-10	4.74E-10	5.82E-10	6.91E-10	8.00E-10	9.09E-10	2.71E-09	5.11E-09	
barium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
bromine	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cadmium	3.13E-10	9.96E-11	2.28E-12	2.38E-11	3.83E-11	1.36E-10	5.59E-11	7.96E-11	1.03E-10	1.27E-10	1.51E-10	1.75E-10	1.98E-10	9.78E-10	1.50E-09	
chlorine	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
chromium (VI)	9.02E-09	1.18E-09	3.68E-11	3.15E-10	1.20E-08	4.07E-08	1.66E-08	2.36E-08	3.06E-08	3.76E-08	4.46E-08	5.16E-08	5.86E-08	1.72E-07	3.27E-07	
cobalt	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
copper	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
lead	1.64E-11	5.01E-12	1.15E-13	1.20E-12	5.74E-12	2.02E-11	8.32E-12	1.18E-11	1.54E-11	1.89E-11	2.24E-11	2.60E-11	2.95E-11	1.03E-10	1.81E-10	
manganese	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
mercury	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
nickel	1.47E-10	1.27E-11	4.82E-13	3.68E-12	2.46E-10	8.18E-10	3.34E-10	4.74E-10	6.14E-10	7.54E-10	8.94E-10	1.03E-09	1.17E-09	3.40E-09	6.51E-09	
non-phosphate phosphorous	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
phosphorus	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
selenium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silicon	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silver	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
sulfates	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
thallium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
vanadium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
zinc	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Diesel PM	6.05E-08	8.21E-09	3.89E-10	1.95E-09	1.28E-09	3.55E-09	1.40E-09	1.97E-09	2.53E-09	3.09E-09	3.65E-09	4.22E-09	4.78E-09	8.48E-08	9.75E-08	
TOTAL	7.06E-08	9.56E-09	4.30E-10	2.31E-09	1.32E-06	1.26E-06	3.06E-07	3.15E-07	3.23E-07	3.32E-07	3.40E-07	3.48E-07	3.57E-07	3.94E-06	4.98E-06	

NA = Not Available
NC = Not Calculated
ug/m^3 = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-4.2
2015 OEHHA Hazard Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project Operations
with 2024-2027 Mitigated Construction - Lifetime Exposure, Residential Scenario
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	3rd Trimester	Ages 0<2	Ages 2<9	Ages 2<16	Ages 16<30	Ages 16<70
Daily Breathing Rate (DBR)	361 L/kg-d	1090 L/kg-d	861 L/kg-d	745 L/kg-d	335 L/kg-d	290 L/kg-d
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L
Age-adjustment (ASF)	10 unitless	10 unitless	3 unitless	3 unitless	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.00357 unitless	0.01429 unitless	0.01429 unitless	0.014286 unitless	0.2 unitless	0.771 unitless
Fraction of Time at Home (FAH)	1.00 unitless	1.00 unitless	1.00 unitless	1 unitless	0.73 unitless	0.73 unitless
School Child 8-hr Daily Breathing Rate (DBR)			640 L/kg-d	520 L/kg-d	240 L/kg-d	
School Child Fraction of Time at Home (FAH)			1 unitless	1 unitless	1 unitless	

	Start Age	End Age
Child Resident	0	9 Year
School Child 9-yr	7	15 Year
School Child 12-yr	7	18 Year
30-year Resident	0	30 Year
70-year Resident	0	70 Year

	Concentration at Location w/Maximum Risk (ug/m^3)													Toxicity Criteria	
	Construction by Year			Operation by Year										EPA RfC	CalEPA REL
	2024	2025	2026	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	(ug/m^3)	(ug/m^3)
TAC															
1,2,4-trimethylbenzene	7.38E-07	0.00E+00	0.00E+00	0.00E+00	2.45E-04	2.45E-04	2.44E-04	2.43E-04	2.42E-04	2.41E-04	2.41E-04	2.40E-04	2.39E-04	2.38E-04	7.00E+00	NA
1,3-butadiene	4.14E-07	0.00E+00	0.00E+00	0.00E+00	1.38E-04	1.37E-04	1.37E-04	1.37E-04	1.36E-04	1.36E-04	1.35E-04	1.35E-04	1.35E-04	1.34E-04	2.00E+00	2.00E+00
2,2,4-trimethylpentane	1.76E-06	0.00E+00	0.00E+00	0.00E+00	5.83E-04	5.82E-04	5.80E-04	5.79E-04	5.77E-04	5.76E-04	5.74E-04	5.73E-04	5.71E-04	5.70E-04	NA	NA
acetaldehyde	2.16E-07	0.00E+00	0.00E+00	0.00E+00	7.18E-05	7.16E-05	7.14E-05	7.12E-05	7.11E-05	7.09E-05	7.07E-05	7.05E-05	7.03E-05	7.01E-05	9.00E+00	1.40E+02
acrolein	9.90E-08	0.00E+00	0.00E+00	0.00E+00	3.29E-05	3.28E-05	3.27E-05	3.27E-05	3.26E-05	3.25E-05	3.24E-05	3.23E-05	3.22E-05	3.21E-05	3.21E-05	3.20E-05	2.00E-02	3.50E-01
benzene	1.88E-06	0.00E+00	0.00E+00	0.00E+00	6.25E-04	6.24E-04	6.22E-04	6.20E-04	6.19E-04	6.17E-04	6.16E-04	6.14E-04	6.13E-04	6.11E-04	6.09E-04	6.07E-04	3.00E+01	3.00E+00
cumene	9.00E-09	0.00E+00	0.00E+00	0.00E+00	2.99E-06	2.98E-06	2.98E-06	2.97E-06	2.96E-06	2.95E-06	2.95E-06	2.94E-06	2.93E-06	2.92E-06	2.91E-06	2.91E-06	4.00E+02	NA
cyclohexane	4.68E-07	0.00E+00	0.00E+00	0.00E+00	1.56E-04	1.55E-04	1.55E-04	1.54E-04	1.54E-04	1.54E-04	1.53E-04	1.53E-04	1.52E-04	1.52E-04	1.52E-04	1.51E-04	6.00E+03	NA
ethylbenzene	1.96E-06	0.00E+00	2.32E-07	2.55E-06	2.66E-04	2.66E-04	2.66E-04	2.65E-04	2.64E-04	2.63E-04	2.63E-04	2.62E-04	2.61E-04	2.61E-04	2.60E-04	2.59E-04	2.59E-04	1.00E+03	2.00E+03
ethylene	4.85E-06	0.00E+00	0.00E+00	0.00E+00	1.61E-03	1.61E-03	1.60E-03	1.60E-03	1.60E-03	1.59E-03	1.59E-03	1.58E-03	1.58E-03	1.57E-03	1.57E-03	1.57E-03	NA	NA
formaldehyde	1.21E-06	0.00E+00	0.00E+00	0.00E+00	4.01E-04	4.00E-04	3.99E-04	3.98E-04	3.97E-04	3.96E-04	3.95E-04	3.94E-04	3.93E-04	3.92E-04	3.90E-04	3.89E-04	9.80E+00	9.00E+00
hexane, n-	1.22E-06	0.00E+00	0.00E+00	0.00E+00	4.04E-04	4.03E-04	4.01E-04	4.00E-04	3.99E-04	3.98E-04	3.97E-04	3.95E-04	3.94E-04	3.93E-04	3.92E-04	3.90E-04	7.00E+02	7.00E+03
isoprene, except from vegetative emission sources	1.08E-07	0.00E+00	0.00E+00	0.00E+00	3.59E-05	3.58E-05	3.57E-05	3.56E-05	3.55E-05	3.54E-05	3.53E-05	3.52E-05	3.52E-05	3.51E-05	3.50E-05	3.49E-05	NA	NA
methyl alcohol	9.00E-08	0.00E+00	0.00E+00	0.00E+00	2.99E-05	2.98E-05	2.97E-05	2.96E-05	2.95E-05	2.95E-05	2.94E-05	2.93E-05	2.92E-05	2.91E-05	2.91E-05	2.90E-05	2.00E+04	4.00E+03
methyl ethyl ketone	1.80E-08	0.00E+00	0.00E+00	0.00E+00	5.98E-06	5.97E-06	5.95E-06	5.94E-06	5.92E-06	5.91E-06	5.89E-06	5.87E-06	5.86E-06	5.84E-06	5.83E-06	5.81E-06	5.00E+03	NA
naphthalene	3.60E-08	0.00E+00	0.00E+00	0.00E+00	1.20E-05	1.19E-05	1.19E-05	1.19E-05	1.18E-05	1.18E-05	1.18E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.16E-05	3.00E+00	9.00E+00
propionaldehyde	2.70E-08	0.00E+00	0.00E+00	0.00E+00	8.97E-06	8.93E-06	8.91E-06	8.87E-06	8.85E-06	8.83E-06	8.80E-06	8.78E-06	8.76E-06	8.74E-06	8.72E-06	8.70E-06	8.00E+00	NA
propylene	2.33E-06	0.00E+00	0.00E+00	0.00E+00	7.75E-04	7.73E-04	7.71E-04	7.69E-04	7.67E-04	7.65E-04	7.63E-04	7.61E-04	7.59E-04	7.57E-04	7.55E-04	7.53E-04	3.00E+03	3.00E+03
styrene	9.00E-08	0.00E+00	0.00E+00	0.00E+00	2.99E-05	2.98E-05	2.98E-05	2.97E-05	2.96E-05	2.95E-05	2.95E-05	2.94E-05	2.93E-05	2.92E-05	2.91E-05	2.91E-05	1.00E+03	9.00E+02
toluene	7.61E-06	0.00E+00	6.45E-07	7.10E-06	1.46E-03	1.45E-03	1.46E-03	1.45E-03	1.44E-03	1.44E-03	1.43E-03	1.43E-03	1.43E-03	1.42E-03	1.42E-03	1.42E-03	5.00E+03	3.50E+02
xylene (total)	5.53E-06	0.00E+00	3.73E-07	4.10E-06	1.22E-03	1.21E-03	1.21E-03	1.21E-03	1.20E-03	1.20E-03	1.20E-03	1.20E-03	1.19E-03	1.19E-03	1.19E-03	1.18E-03	1.00E+02	7.00E+02
aluminum	4.75E-05	3.42E-05	2.85E-06	3.42E-05	3.05E-04	3.86E-03	7.05E-03	1.04E-02	1.38E-02	1.72E-02	2.06E-02	2.39E-02	2.73E-02	3.07E-02	3.40E-02	3.74E-02	5.00E+00	5.00E+00
ammonium ion	9.42E-08	5.65E-08	4.74E-09	5.72E-08	8.32E-06	1.00E-04	1.95E-04	2.84E-04	3.76E-04	4.68E-04	5.60E-04	6.52E-04	7.44E-04	8.36E-04	9.28E-04	1.02E-03	1.00E+02	2.00E+02
antimony	9.50E-09	6.84E-09	5.70E-10	6.84E-09	1.94E-07	2.34E-06	4.48E-06	6.63E-06	8.78E-06	1.09E-05	1.31E-05	1.52E-05	1.74E-05	1.95E-05	2.16E-05	2.38E-05	NA	NA
arsenic	1.39E-08	8.64E-09	7.20E-10	8.74E-09	4.94E-07	5.91E-07	1.68E-06	2.22E-06	2.76E-06	3.30E-06	3.84E-06	4.38E-06	4.93E-06	5.47E-06	6.01E-06	1.50E-02	1.50E-02	
barium	1.08E-05	3.43E-07	2.86E-08	8.87E-07	7.03E-05	8.22E-04	1.57E-03	2.32E-03	3.08E-03	3.83E-03	4.58E-03	5.33E-03	6.08E-03	6.83E-03	7.58E-03	8.34E-03	5.00E-01	NA
bromine	3.09E-08	1.26E-08	1.05E-09	1.30E-08	1.20E-07	1.19E-06	2.26E-06	3.33E-06	4.40E-06	5.47E-06	6.54E-06	7.61E-06	8.68E-06	9.75E-06	1.08E-05	1.19E-05	NA	NA
cadmium	1.99E-08	1.40E-08	1.17E-09	1.40E-08	8.55E-06	1.02E-04	1.96E-04	2.93E-04	3.87E-04	4.82E-04	5.76E-04	6.71E-04	7.66E-04	8.60E-04	9.55E-04	1.05E-03	1.00E-02	2.00E-02
chlorine	3.50E-06	1.53E-06	1.28E-07	1.55E-06	9.93E-06	8.57E-05	1.61E-04	2.37E-04	3.13E-04	3.89E-04	4.65E-04	5.40E-04	6.16E-04	6.92E-04	7.68E-04	8.43E-04	1.50E-01	2.00E-01
chromium (VI)	1.83E-08	4.72E-09	3.93E-10	5.32E-09	7.86E-08	9.07E-07	1.74E-06	2.56E-06	3.39E-06	4.22E-06	5.05E-06	5.88E-06	6.70E-06	7.53E-06	8.36E-06	9.19E-06	1.00E-01	2.00E-01
cobalt	7.23E-08	4.86E-08	4.05E-09	4.86E-08	3.75E-06	9.44E-07	1.79E-06	2.64E-06	3.48E-06	4.33E-06	5.18E-06	6.02E-06	6.87E-06	7.72E-06	8.56E-06	9.41E-06	6.00E-03	NA
copper	2.28E-06	4.97E-08	4.14E-09	1.65E-07

Table 1-4.3
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project Operations with 2024-2027 Mitigated Construction - Lifetime Exposure, Worker Scenario
(Based on Peak Location of Commercial Cancer Risks[1])

Equations
Risk = Cair*DBR*EF*CF*A*ASF*ED*FAH*CPF
HQ = Cair / REL
Where: HQ = Hazard Quotient — Cair = Exposure Concentration
DBR = Daily Breathing Rate — ASF = Age sensitivity factor
EF = Fraction of Year — ED = Fraction of Averaging time
A = Absorption Fraction — FAH = Fraction of Time at Home
CF = Conversion Factor — CPF = Cancer Potency Factor

	Cancer Risk to Worker																
	Construction by Year				Operation by Year											Ops	TOTAL Cancer Risk
TAC	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035-2047	to Worker for Max Location
1,2,4-trimethylbenzene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	2.59E-12	0.00E+00	0.00E+00	6.48E-14	2.09E-08	2.10E-08	2.10E-08	2.11E-08	2.12E-08	2.13E-08	2.13E-08	2.14E-08	2.15E-08	2.16E-08	2.16E-08	2.94E-07	5.28E-07
2,2,4-trimethylpentane	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	2.25E-14	0.00E+00	0.00E+00	5.64E-16	1.82E-10	1.82E-10	1.83E-10	1.84E-10	1.84E-10	1.85E-10	1.85E-10	1.86E-10	1.87E-10	1.87E-10	1.88E-10	2.55E-09	4.59E-09
acrolein	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
benzene	1.96E-12	0.00E+00	0.00E+00	4.91E-14	1.58E-08	1.59E-08	1.59E-08	1.60E-08	1.60E-08	1.61E-08	1.62E-08	1.62E-08	1.63E-08	1.63E-08	1.64E-08	2.22E-07	4.00E-07
cumene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cyclohexane	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	2.67E-13	0.00E+00	1.90E-14	1.77E-13	5.86E-10	5.88E-10	5.90E-10	5.92E-10	5.94E-10	5.96E-10	5.98E-10	6.00E-10	6.03E-10	6.05E-10	6.07E-10	8.24E-09	1.48E-08
ethylene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	2.64E-13	0.00E+00	0.00E+00	6.61E-15	2.13E-09	2.14E-09	2.15E-09	2.15E-09	2.16E-09	2.17E-09	2.17E-09	2.18E-09	2.19E-09	2.20E-09	2.20E-09	3.00E-08	5.38E-08
hexane, n-	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
isoprene, except from vegetati	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
naphthalene	4.51E-14	0.00E+00	0.00E+00	1.13E-15	3.63E-10	3.65E-10	3.66E-10	3.67E-10	3.68E-10	3.70E-10	3.71E-10	3.72E-10	3.74E-10	3.75E-10	3.76E-10	5.11E-09	9.18E-09
propionaldehyde	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
propylene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
styrene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
toluene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
xylene (total)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
aluminum	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ammonium ion	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
antimony	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
arsenic	2.20E-12	8.31E-13	8.40E-14	8.53E-13	3.91E-12	1.01E-11	1.62E-11	2.24E-11	2.86E-11	3.47E-11	4.09E-11	4.71E-11	5.32E-11	5.94E-11	6.55E-11	9.71E-10	1.36E-09
barium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
bromine	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cadmium	3.98E-12	1.68E-12	1.65E-13	1.70E-12	8.45E-13	2.19E-12	3.54E-12	4.88E-12	6.23E-12	7.58E-12	8.92E-12	1.03E-11	1.16E-11	1.30E-11	1.43E-11	2.12E-10	3.03E-10
chlorine	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
chromium (VI)	1.07E-10	2.06E-11	2.62E-12	2.31E-11	2.66E-10	6.60E-10	1.05E-09	1.45E-09	1.84E-09	2.24E-09	2.63E-09	3.02E-09	3.42E-09	3.81E-09	4.21E-09	6.23E-08	8.70E-08
cobalt	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
copper	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
lead	2.08E-13	8.46E-14	8.50E-15	8.63E-14	1.27E-13	3.27E-13	5.27E-13	7.27E-13	9.27E-13	1.13E-12	1.33E-12	1.53E-12	1.73E-12	1.93E-12	2.13E-12	3.15E-11	4.43E-11
manganese	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
mercury	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
nickel	1.72E-12	2.27E-13	3.47E-14	2.74E-13	5.42E-12	1.33E-11	2.11E-11	2.89E-11	3.68E-11	4.46E-11	5.25E-11	6.03E-11	6.81E-11	7.60E-11	8.38E-11	1.24E-09	1.73E-09
non-phosphate phosphorous	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
phosphorus	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
selenium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silicon	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silver	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
sulfates	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
thallium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
vanadium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
zinc	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Diesel PM	7.75E-10	1.29E-10	2.58E-11	1.55E-10	2.71E-11	6.74E-11	1.08E-10	1.48E-10	1.89E-10	2.29E-10	2.69E-10	3.10E-10	3.50E-10	3.90E-10	4.31E-10	6.38E-09	9.98E-09
TOTAL	8.95E-10	1.53E-10	2.88E-11	1.81E-10	4.03E-08	4.09E-08	4.15E-08	4.20E-08	4.26E-08	4.32E-08	4.38E-08	4.44E-08	4.50E-08	4.56E-08	4.62E-08	6.33E-07	1.11E-06

NA = Not Available — ug/m³ = micrograms per cubic meter
NC = Not Calculated — mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-4.2
2015 OEHHA Hazard Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project Operations with 2024-2027 Mitigated Construction - Lifetime Exposure, Residential Scenario
(Based on Peak Location of Residential Cancer Risks[1])

	Start Age	End Age
Child Resident	0	9 Year
School Child	7	16 Year
30-year Resident	0	30 Year
70-year Resident	0	70 Year

Equations
Risk = Cair*DBR*EF*CPF*A*ASF*ED*FAH*CPF
HQ = Cair / REL
Where: HQ = Hazard Quotient — Cair = Exposure Concentration
DBR = Daily Breathing Rate — ASF = Age sensitivity factor
EF = Fraction of Year — ED = Fraction of Averaging time
A = Absorption Fraction — FAH = Fraction of Time at Home
CF = Conversion Factor — CPF = Cancer Potency Factor

	Hazard Quotient to Resident															
	Construction by Year				Operation by Year											
TAC	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
1,2,4-trimethylbenzene	1.05E-07	0.00E+00	0.00E+00	0.00E+00	-3.50E-05	-3.50E-05	-3.49E-05	-3.48E-05	-3.47E-05	-3.46E-05	-3.45E-05	-3.44E-05	-3.43E-05	-3.42E-05	-3.41E-05	-3.40E-05
1,3-butadiene	2.07E-07	0.00E+00	0.00E+00	0.00E+00	-6.88E-05	-6.86E-05	-6.85E-05	-6.83E-05	-6.81E-05	-6.79E-05	-6.77E-05	-6.76E-05	-6.74E-05	-6.72E-05	-6.70E-05	-6.68E-05
2,2,4-trimethylpentane	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	1.54E-09	0.00E+00	0.00E+00	0.00E+00	-5.13E-07	-5.12E-07	-5.10E-07	-5.09E-07	-5.08E-07	-5.06E-07	-5.05E-07	-5.04E-07	-5.02E-07	-5.01E-07	-5.00E-07	-4.98E-07
acrolein	2.83E-07	0.00E+00	0.00E+00	0.00E+00	-9.40E-05	-9.38E-05	-9.35E-05	-9.33E-05	-9.30E-05	-9.28E-05	-9.26E-05	-9.23E-05	-9.21E-05	-9.18E-05	-9.16E-05	-9.13E-05
benzene	6.27E-07	0.00E+00	0.00E+00	0.00E+00	-2.08E-04	-2.08E-04	-2.07E-04	-2.07E-04	-2.06E-04	-2.06E-04	-2.06E-04	-2.05E-04	-2.04E-04	-2.04E-04	-2.03E-04	-2.02E-04
cumene	2.25E-11	0.00E+00	0.00E+00	0.00E+00	-7.48E-09	-7.46E-09	-7.44E-09	-7.42E-09	-7.40E-09	-7.38E-09	-7.36E-09	-7.34E-09	-7.32E-09	-7.30E-09	-7.29E-09	-7.27E-09
cyclohexane	7.80E-11	0.00E+00	0.00E+00	0.00E+00	-2.59E-08	-2.59E-08	-2.58E-08	-2.57E-08	-2.57E-08	-2.56E-08	-2.55E-08	-2.55E-08	-2.54E-08	-2.53E-08	-2.53E-08	-2.52E-08
ethylbenzene	9.81E-10	0.00E+00	1.16E-10	1.28E-09	-1.12E-07	-1.33E-07	-1.32E-07	-1.32E-07	-1.32E-07	-1.31E-07	-1.31E-07	-1.31E-07	-1.30E-07	-1.30E-07	-1.30E-07	-1.29E-07
ethylene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	1.34E-07	0.00E+00	0.00E+00	0.00E+00	-4.45E-05	-4.44E-05	-4.43E-05	-4.42E-05	-4.41E-05	-4.40E-05	-4.38E-05	-4.37E-05	-4.36E-05	-4.35E-05	-4.34E-05	-4.33E-05
hexane, n-	1.74E-10	0.00E+00	0.00E+00	0.00E+00	-5.77E-08	-5.75E-08	-5.74E-08	-5.72E-08	-5.71E-08	-5.69E-08	-5.68E-08	-5.66E-08	-5.65E-08	-5.63E-08	-5.62E-08	-5.61E-08
isoprene, except from vegetative emission sources	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	2.25E-11	0.00E+00	0.00E+00	0.00E+00	-7.46E-09	-7.46E-09	-7.44E-09	-7.42E-09	-7.40E-09	-7.38E-09	-7.36E-09	-7.34E-09	-7.32E-09	-7.30E-09	-7.29E-09	-7.27E-09
methyl ethyl ketone	3.60E-12	0.00E+00	0.00E+00	0.00E+00	-1.20E-09	-1.19E-09	-1.19E-09	-1.19E-09	-1.18E-09	-1.18E-09	-1.18E-09	-1.17E-09	-1.17E-09	-1.17E-09	-1.17E-09	-1.16E-09
naphthalene	4.00E-09	0.00E+00	0.00E+00	0.00E+00	-1.33E-06	-1.33E-06	-1.32E-06	-1.32E-06	-1.32E-06	-1.31E-06	-1.31E-06	-1.31E-06	-1.30E-06	-1.30E-06	-1.30E-06	-1.29E-06
propionaldehyde	3.38E-09	0.00E+00	0.00E+00	0.00E+00	-1.12E-06	-1.12E-06	-1.12E-06	-1.12E-06	-1.11E-06	-1.11E-06	-1.11E-06	-1.10E-06	-1.10E-06	-1.10E-06	-1.10E-06	-1.09E-06
propylene	7.77E-10	0.00E+00	0.00E+00	0.00E+00	-2.58E-07	-2.58E-07	-2.57E-07	-2.56E-07	-2.56E-07	-2.55E-07	-2.54E-07	-2.54E-07	-2.53E-07	-2.52E-07	-2.52E-07	-2.51E-07
styrene	1.00E-10	0.00E+00	0.00E+00	0.00E+00	-3.32E-08	-3.32E-08	-3.31E-08	-3.30E-08	-3.29E-08	-3.28E-08	-3.27E-08	-3.26E-08	-3.26E-08	-3.25E-08	-3.24E-08	-3.23E-08
toluene	2.54E-08	0.00E+00	2.15E-09	2.37E-08	-4.86E-06	-4.84E-06	-4.82E-06	-4.81E-06	-4.79E-06	-4.78E-06	-4.77E-06	-4.76E-06	-4.74E-06	-4.73E-06	-4.72E-06	-4.72E-06
xylene (total)	7.90E-09	0.00E+00	5.33E-10	5.86E-09	-1.74E-06	-1.73E-06	-1.73E-06	-1.72E-06	-1.71E-06	-1.71E-06	-1.70E-06	-1.70E-06	-1.69E-06	-1.69E-06	-1.69E-06	-1.68E-06
aluminum	9.51E-06	6.83E-06	5.69E-07	6.83E-06	6.10E-05	7.36E-04	1.41E-03	2.09E-03	2.76E-03	3.43E-03	4.11E-03	4.78E-03	5.46E-03	6.13E-03	6.81E-03	7.48E-03
ammonium ion	4.71E-10	2.84E-10	2.37E-11	2.86E-10	4.16E-08	5.02E-07	9.62E-07	1.42E-06	1.88E-06	2.34E-06	2.80E-06	3.26E-06	3.72E-06	4.18E-06	4.64E-06	5.10E-06
antimony	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
arsenic	9.27E-07	5.76E-07	4.80E-08	5.83E-07	3.30E-06	3.94E-05	7.55E-05	1.12E-04	1.48E-04	1.84E-04	2.20E-04	2.56E-04	2.92E-04	3.29E-04	3.65E-04	4.01E-04
barium	2.17E-05	6.85E-07	5.71E-08	3.15E-03	1.41E-04	1.64E-03	3.15E-03	4.65E-03	6.15E-03	7.65E-03	9.16E-03	1.07E-02	1.22E-02	1.37E-02	1.52E-02	1.67E-02
bromine	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cadmium	9.75E-07	7.02E-07	5.85E-08	7.02E-07	4.28E-07	5.16E-06	9.88E-06	1.46E-05	1.94E-05	2.41E-05	2.88E-05	3.36E-05	3.83E-05	4.30E-05	4.78E-05	5.25E-05
chlorine	1.75E-05	7.65E-06	6.38E-07	7.72E-06	4.96E-05	4.28E-04	8.07E-04	1.19E-03	1.57E-03	1.94E-03	2.32E-03	2.70E-03	3.08E-03	3.46E-03	3.84E-03	4.22E-03
chromium (VI)	9.14E-08	2.36E-08	1.97E-09	2.66E-08	3.93E-07	4.53E-06	8.68E-06	1.28E-05	1.70E-05	2.11E-05	2.52E-05	2.94E-05	3.35E-05	3.77E-05	4.18E-05	4.59E-05
cobalt	1.21E-05	8.10E-06	6.75E-07	8.10E-06	1.62E-05	1.57E-04	2.98E-04	4.40E-04	5.81E-04	7.22E-04	8.63E-04	1.00E-03	1.14E-03	1.28E-03	1.43E-03	1.57E-03
copper	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
lead	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
manganese	1.01E-05	4.60E-06	3.83E-07	4.79E-06	4.93E-05	5.83E-04	1.12E-03	1.65E-03	2.19E-03	2.72E-03	3.25E-03	3.79E-03	4.32E-03	4.86E-03	5.39E-03	5.92E-03
mercury	3.33E-07	2.40E-07	2.00E-08	2.40E-07	8.55E-07	1.03E-05	1.98E-05	2.93E-05	3.87E-05	4.82E-05	5.76E-05	6.71E-05	7.66E-05	8.60E-05	9.55E-05	1.05E-04
nickel	1.22E-05	1.95E-06	1.63E-07	2.43E-06	6.39E-05	7.31E-04	1.40E-03	2.07E-03	2.73E-03	3.40E-03	4.07E-03	4.74E-03	5.40E-03	6.07E-03	6.74E-03	7.41E-03
non-phosphate phosphorous	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
phosphorus	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
selenium	3.15E-10	5.40E-11	4.50E-12	6.40E-11	1.79E-09	2.10E-08	4.02E-08	5.94E-08	7.86E-08	9.78E-08	1.17E-07	1.36E-07	1.55E-07	1.75E-07	1.94E-07	2.13E-07
silicon	4.50E-05	2.93E-05	2.44E-06	2.95E-05	3.17E-04	3.81E-03	7.30E-03	1.08E-02	1.43E-02	1.78E-02	2.13E-02	2.48E-02	2.83E-02	3.18E-02	3.53E-02	3.87E-02
silver	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
sulfates	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
thallium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
vanadium	2.91E-06	1.19E-06	9.93E-08	1.26E-06	1.02E-05	1.20E-04	2.29E-04	3.38E-04	4.48E-04	5.57E-04	6.67E-04	7.76E-04	8.86E-04	9.95E-04	1.10E-03	1.21E-03
zinc	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Diesel PM	1.40E-05	4.00E-06	0.00E+00	4.00E-06	3.48E-07	5.80E-06	1.13E-05	1.67E-05	2.22E-05	2.76E-05	3.31E-05	3.85E-05	4.40E-05	4.94E-05	5.49E-05	6.03E-05
TOTAL	0.00015	0.000066	0.0	0.000068	0.00	0.01	0.02	0.02	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.08

NA = Not Available — ug/m³ = micrograms per cubic meter
NC = Not Calculated — mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-4.4
2015 OEHHA Hazard Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project Operations with 2024-2027 Mitigated Construction - Worker Scenario
(Based on Peak Location of Commercial Cancer Risks[1])

Exposure Parameters	Ages 16<30	Ages 16<70
Worker 8-hr Daily Breathing Rate (DBR)	240 L/kg-d	230 L/kg-d
Fraction of Year (EF)	0.68 unitless	0.68 unitless
Absorption Fraction (A)	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m³/L	0.000001 m³/L
Age-adjustment (ASF)	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.01 unitless	0.157 unitless
Worker Adjustment Factor (WAH)	1 unitless	1 unitless

	Concentration at Location w/Maximum Risk (ug/m³)																Toxicity Criteria	
	Construction by Year				Operations												EPA	CalEPA
TAC	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	RfC (ug/m³)	REL (ug/m³)
1,2,4-trimethylbenzene	2.87E-06	8.20E-08	8.20E-08	2.46E-07	4.65E-03	4.62E-03	4.60E-03	4.57E-03	4.54E-03	4.52E-03	4.49E-03	4.47E-03	4.44E-03	4.41E-03	4.39E-03	4.36E-03	7.00E+00	NA
1,3-butadiene	1.61E-06	4.60E-08	4.60E-08	1.38E-07	2.61E-03	2.59E-03	2.58E-03	2.56E-03	2.55E-03	2.53E-03	2.52E-03	2.50E-03	2.49E-03	2.48E-03	2.46E-03	2.45E-03	2.00E+00	2.00E+00
2,2,4-trimethylpentane	6.83E-06	1.95E-07	1.95E-07	5.85E-07	1.11E-02	1.10E-02	1.09E-02	1.09E-02	1.08E-02	1.07E-02	1.07E-02	1.06E-02	1.06E-02	1.05E-02	1.04E-02	1.04E-02	NA	NA
acetaldehyde	8.40E-07	2.40E-08	2.40E-08	7.20E-08	1.36E-03	1.35E-03	1.34E-03	1.34E-03	1.33E-03	1.32E-03	1.31E-03	1.31E-03	1.30E-03	1.29E-03	1.28E-03	1.28E-03	9.00E+00	1.40E+02
acrolein	3.85E-07	1.10E-08	1.10E-08	3.30E-08	6.23E-04	6.20E-04	6.18E-04	6.13E-04	6.09E-04	6.06E-04	6.02E-04	5.99E-04	5.96E-04	5.92E-04	5.89E-04	5.85E-04	2.00E-02	3.50E-01
benzene	7.32E-06	2.09E-07	2.09E-07	6.27E-07	1.18E-02	1.18E-02	1.17E-02	1.16E-02	1.16E-02	1.15E-02	1.14E-02	1.14E-02	1.13E-02	1.12E-02	1.12E-02	1.11E-02	3.00E+01	3.00E+00
cumene	3.50E-08	1.00E-09	1.00E-09	3.00E-09	5.67E-05	5.64E-05	5.60E-05	5.57E-05	5.54E-05	5.51E-05	5.48E-05	5.45E-05	5.41E-05	5.38E-05	5.35E-05	5.32E-05	4.00E+02	NA
cyclohexane	1.82E-06	5.20E-08	5.20E-08	1.56E-07	2.95E-03	2.93E-03	2.91E-03	2.90E-03	2.88E-03	2.86E-03	2.85E-03	2.83E-03	2.82E-03	2.80E-03	2.77E-03	2.76E-03	6.00E+03	NA
ethylbenzene	2.07E-05	8.90E-08	1.71E-06	1.58E-05	5.04E-03	5.02E-03	4.99E-03	4.96E-03	4.93E-03	4.90E-03	4.87E-03	4.85E-03	4.82E-03	4.79E-03	4.76E-03	4.73E-03	1.00E+03	2.00E+03
ethylene	1.89E-05	5.39E-07	5.39E-07	1.62E-06	3.05E-02	3.04E-02	3.02E-02	3.00E-02	2.99E-02	2.97E-02	2.95E-02	2.94E-02	2.92E-02	2.90E-02	2.88E-02	2.87E-02	NA	NA
formaldehyde	4.66E-06	1.34E-07	1.34E-07	4.02E-07	7.56E-03	7.53E-03	7.51E-03	7.47E-03	7.42E-03	7.38E-03	7.34E-03	7.30E-03	7.25E-03	7.21E-03	7.17E-03	7.13E-03	9.80E+00	9.00E+00
hexane, n-	4.73E-06	1.35E-07	1.35E-07	4.05E-07	7.65E-03	7.61E-03	7.57E-03	7.52E-03	7.48E-03	7.44E-03	7.39E-03	7.35E-03	7.31E-03	7.27E-03	7.22E-03	7.18E-03	7.00E+02	7.00E+03
isoprene, except from vegetative emiss	4.20E-07	1.20E-08	1.20E-08	3.60E-08	6.80E-04	6.76E-04	6.72E-04	6.69E-04	6.65E-04	6.61E-04	6.57E-04	6.53E-04	6.50E-04	6.46E-04	6.42E-04	6.38E-04	NA	NA
methyl alcohol	3.50E-07	1.00E-08	1.00E-08	3.00E-08	5.67E-04	5.64E-04	5.60E-04	5.57E-04	5.54E-04	5.51E-04	5.48E-04	5.45E-04	5.41E-04	5.38E-04	5.35E-04	5.32E-04	2.00E+04	4.00E+03
methyl ethyl ketone	7.00E-08	2.00E-09	2.00E-09	6.00E-09	1.13E-04	1.13E-04	1.12E-04	1.11E-04	1.11E-04	1.10E-04	1.10E-04	1.09E-04	1.08E-04	1.08E-04	1.07E-04	1.06E-04	5.00E+03	NA
naphthalene	1.40E-07	4.00E-09	4.00E-09	1.20E-08	2.27E-04	2.25E-04	2.24E-04	2.23E-04	2.22E-04	2.20E-04	2.19E-04	2.18E-04	2.17E-04	2.15E-04	2.14E-04	2.13E-04	3.00E+00	9.00E+00
propionaldehyde	1.05E-07	3.00E-09	3.00E-09	9.00E-09	1.70E-04	1.69E-04	1.68E-04	1.67E-04	1.66E-04	1.65E-04	1.64E-04	1.63E-04	1.62E-04	1.61E-04	1.61E-04	1.60E-04	8.00E+00	NA
propylene	9.07E-06	2.59E-07	2.59E-07	7.77E-07	1.47E-02	1.46E-02	1.45E-02	1.44E-02	1.44E-02	1.43E-02	1.42E-02	1.41E-02	1.40E-02	1.39E-02	1.39E-02	1.38E-02	3.00E+03	3.00E+03
styrene	3.50E-07	1.00E-08	1.00E-08	3.00E-08	5.67E-04	5.64E-04	5.60E-04	5.57E-04	5.54E-04	5.51E-04	5.48E-04	5.45E-04	5.41E-04	5.38E-04	5.35E-04	5.32E-04	1.00E+03	9.00E+02
toluene	6.61E-05	4.87E-07	5.00E-06	4.47E-05	2.76E-02	2.74E-02	2.73E-02	2.71E-02	2.70E-02	2.68E-02	2.67E-02	2.65E-02	2.64E-02	2.62E-02	2.61E-02	2.59E-02	5.00E+03	3.00E+02
xylene (total)	4.26E-05	4.07E-07	3.02E-06	2.62E-05	2.31E-02	2.29E-02	2.28E-02	2.27E-02	2.26E-02	2.24E-02	2.23E-02	2.22E-02	2.20E-02	2.19E-02	2.18E-02	2.16E-02	1.00E+02	7.00E+02
aluminum	4.25E-04	2.13E-04	1.99E-05	2.16E-04	1.85E-03	9.96E-03	1.81E-02	2.62E-02	3.43E-02	4.24E-02	5.05E-02	5.86E-02	6.67E-02	7.48E-02	8.29E-02	9.10E-02	5.00E+00	NA
ammonium ion	7.66E-07	3.57E-07	3.57E-08	3.67E-07	5.06E-05	4.93E-04	4.78E-03	7.14E-04	9.35E-04	1.16E-03	1.38E-03	1.60E-03	1.82E-03	2.04E-03	2.26E-03	2.48E-03	1.00E+02	2.00E+02
antimony	8.49E-08	4.26E-08	3.99E-09	4.31E-08	1.18E-06	6.33E-06	1.15E-05	1.66E-05	2.18E-05	2.70E-05	3.21E-05	3.73E-05	4.24E-05	4.76E-05	5.27E-05	5.79E-05	NA	NA
arsenic	1.14E-07	5.41E-08

Table 1-5.1
2035 OEHHA Risk Calculation for LAX Landside Access Modernization Program, 2035 With Project vs. 2035 Without Project Operations
- Lifetime Exposure (Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	3rd Trimester	Ages 0<2	Ages 2<9	Ages 2<16	Ages 16<30	Ages 16<70
Daily Breathing Rate (DBR)	361 L/kg-d	1090 L/kg-d	861 L/kg-d	745 L/kg-d	335 L/kg-d	290 L/kg-d
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m3/L	0.000001 m3/L	0.000001 m3/L	0.000001 m3/L	0.000001 m3/L	0.000001 m3/L
Age-adjustment (ASF)	10 unitless	10 unitless	3 unitless	3 unitless	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.00357 unitless	0.02857 unitless	0.10000 unitless	0.2 unitless	0.2 unitless	0.771 unitless
Fraction of Time at Home (FAH)	1.00 unitless	1.00 unitless	1.00 unitless	1 unitless	0.73 unitless	0.73 unitless
School Child 8-hr Daily Breathing Rate (DBR)			640 L/kg-d	520 L/kg-d	240 L/kg-d	
School Child Fraction of Time at Home (FAH)			1 unitless	1 unitless	1 unitless	

	Start Age	End Age
Child Resident	0	9 Year
School Child 9 yr	7	15 Year
School Child 12 yr	7	18 Year
30-year Resident	0	30 Year
70-year Resident	0	70 Year

Equations
Risk = Cair*DBR*EF*CF*A*ASF*ED*FAH*CPF
HQ = Cair / REL

Where: HQ = Hazard Quotient — Cair = Exposure Concentration
DBR = Daily Breathing Rate — ASF = Age sensitivity factor
EF = Fraction of Year — ED = Fraction of Averaging time
A = Absorption Fraction — FAH = Fraction of Time at Home
CF = Conversion Factor — CPF = Cancer Potency Factor

	Toxicity Criteria					Cancer Risks					Hazard Quotients
TAC	Concentration at Location w/Maximum Risk (ug/m³)	EPA Inhalation CPF (mg/kg-day)⁻¹	CalEPA Inhalation CPF (mg/kg-day)⁻¹	EPA RfC (ug/m³)	CalEPA REL (ug/m³)	Cancer Risk to 9-year Child Resident	Cancer Risk to 9-year School Child	Cancer Risk to 12-year School Child	Cancer Risk to 30-year Resident	Cancer Risk to 70-year Resident	Hazard Quotient Resident
1,2,4-trimethylbenzene	1.28E-02	NA	NA	7.00E+00	NA	NC	NC	NC	NC	NC	1.83E-03
1,3-butadiene	7.21E-03	1.05E-01	6.00E-01	2.00E+00	2.00E+00	2.42E-06	8.95E-07	1.02E-06	3.40E-06	3.87E-06	3.60E-03
2,2,4-trimethylpentane	3.05E-02	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
acetaldehyde	3.76E-03	7.70E-03	1.00E-02	9.00E+00	1.40E+02	2.10E-08	7.79E-09	8.84E-09	2.96E-08	3.37E-08	2.69E-05
acrolein	1.72E-03	NA	NA	2.00E-02	3.50E-01	NC	NC	NC	NC	NC	4.92E-03
benzene	3.27E-02	2.73E-02	1.00E-01	3.00E+01	3.00E+00	1.83E-06	6.78E-07	7.70E-07	2.57E-06	2.93E-06	1.09E-02
cumene	1.57E-04	NA	NA	4.00E+02	NA	NC	NC	NC	NC	NC	3.92E-07
cyclohexane	8.15E-03	NA	NA	6.00E+03	NA	NC	NC	NC	NC	NC	1.36E-06
ethylbenzene	1.39E-02	8.70E-03	8.70E-03	1.00E+03	2.00E+03	6.78E-08	2.51E-08	2.85E-08	9.54E-08	1.09E-07	6.97E-06
ethylene	8.44E-02	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
formaldehyde	2.10E-02	4.95E-02	2.10E-02	9.80E+00	9.00E+00	2.46E-07	9.13E-08	1.04E-07	3.47E-07	3.95E-07	2.33E-03
hexane, n-isoprene, except from vegetative emission sources	2.11E-02	NA	NA	7.00E+02	7.00E+03	NC	NC	NC	NC	NC	3.02E-06
methyl alcohol	1.88E-03	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	1.57E-03	NA	NA	2.00E+04	4.00E+03	NC	NC	NC	NC	NC	3.92E-07
methyl ethyl ketone	3.13E-04	NA	NA	5.00E+03	NA	NC	NC	NC	NC	NC	6.27E-08
naphthalene	6.27E-04	1.19E-01	1.20E-01	3.00E+00	9.00E+00	4.20E-08	1.56E-08	1.77E-08	5.91E-08	6.74E-08	8.96E-05
propionaldehyde	4.70E-04	NA	NA	8.00E+00	NA	NC	NC	NC	NC	NC	5.87E-05
propylene	4.06E-02	NA	NA	3.00E+03	3.00E+03	NC	NC	NC	NC	NC	1.35E-05
styrene	1.57E-03	NA	NA	1.00E+03	9.00E+02	NC	NC	NC	NC	NC	1.74E-06
toluene	7.63E-02	NA	NA	5.00E+03	3.00E+02	NC	NC	NC	NC	NC	2.54E-04
xylene (total)	6.38E-02	NA	NA	1.00E+02	7.00E+02	NC	NC	NC	NC	NC	9.11E-05
aluminum	1.81E-02	NA	NA	5.00E+00	NA	NC	NC	NC	NC	NC	3.62E-03
ammonium ion	4.94E-04	NA	NA	1.00E+02	2.00E+02	NC	NC	NC	NC	NC	2.47E-06
antimony	1.15E-05	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
arsenic	2.91E-06	1.51E+01	1.20E+01	1.50E-02	1.50E-02	1.95E-08	7.23E-09	8.20E-09	2.74E-08	3.13E-08	1.94E-04
barium	4.03E-03	NA	NA	5.00E-01	NA	NC	NC	NC	NC	NC	8.06E-03
bromine	5.11E-06	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
cadmium	5.08E-07	6.30E+00	1.50E+01	1.00E-02	2.00E-02	4.26E-09	1.58E-09	1.79E-09	5.98E-09	6.83E-09	2.54E-05
chlorine	3.18E-04	NA	NA	1.50E-01	2.00E-01	NC	NC	NC	NC	NC	1.59E-03
chromium (VI)	4.41E-06	4.20E+01	5.10E+02	1.00E-01	2.00E-01	1.26E-06	4.66E-07	5.29E-07	1.77E-06	2.02E-06	2.21E-05
cobalt	3.91E-06	NA	NA	6.00E-03	NA	NC	NC	NC	NC	NC	6.52E-04
copper	8.45E-04	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
lead	2.70E-05	NA	NA	4.20E-02	NA	NA	6.33E-10	2.35E-10	2.68E-10	8.91E-10	1.02E-09	NC
manganese	2.57E-04	NA	NA	5.00E-02	9.00E-02	NC	NC	NC	NC	NC	2.86E-03
mercury	1.52E-06	NA	NA	3.00E-02	6.00E-02	NC	NC	NC	NC	NC	5.06E-05
nickel	4.95E-05	8.40E-01	9.10E-01	9.00E-02	1.40E-02	2.52E-08	9.33E-09	1.06E-08	3.54E-08	4.04E-08	3.54E-03
non-phosphate phosphorous	0.00E+00	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
phosphorus	4.80E-04	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
selenium	2.06E-06	NA	NA	2.00E+01	2.00E+01	NC	NC	NC	NC	NC	1.03E-07
silicon	5.62E-02	NA	NA	3.00E+00	3.00E+00	NC	NC	NC	NC	NC	1.87E-02
silver	0.00E+00	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
sulfates	2.87E-03	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
thallium	6.77E-07	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
vanadium	5.87E-05	NA	NA	1.00E-01	NA	NC	NC	NC	NC	NC	5.87E-04
zinc	2.68E-04	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
Diesel PM	1.66E-04	1.05E+00	1.10E+00	5.00E+00	5.00E+00	1.02E-07	3.78E-08	4.30E-08	1.44E-07	1.64E-07	3.32E-05
[1] Residential Maximum Grid No.	484				TOTAL	6.01E-06	2.2E-06	2.5E-06	8.5E-06	9.7E-06	0.06

NA = Not Available — ug/m³ = micrograms per cubic meter
NC = Not Calculated — mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-5.2
2035 OEHHA Risk Calculation for LAX Landside Access Modernization Program, 2035 With Project vs. 2035 Without Project Operations
- Lifetime Exposure (Based on Peak Location of Residential Hazards[1])

Exposure Parameters	3rd Trimester	Ages 0<2	Ages 2<9	Ages 2<16	Ages 16<30	Ages 16<70
Daily Breathing Rate (DBR)	361 L/kg-d	1090 L/kg-d	861 L/kg-d	745 L/kg-d	335 L/kg-d	290 L/kg-d
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m3/L	0.000001 m3/L	0.000001 m3/L	0.000001 m3/L	0.000001 m3/L	0.000001 m3/L
Age-adjustment (ASF)	10 unitless	10 unitless	3 unitless	3 unitless	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.00357 unitless	0.02857 unitless	0.10000 unitless	0.2 unitless	0.2 unitless	0.771 unitless
Fraction of Time at Home (FAH)	1.00 unitless	1.00 unitless	1.00 unitless	1 unitless	0.73 unitless	0.73 unitless
School Child 8-hr Daily Breathing Rate (DBR)			640 L/kg-d	520 L/kg-d	240 L/kg-d	
School Child Fraction of Time at Home (FAH)			1 unitless	1 unitless	1 unitless	

	Start Age	End Age
Child Resident	0	9 Year
School Child 9 yr	7	15 Year
School Child 12 yr	7	18 Year
30-year Resident	0	30 Year
70-year Resident	0	70 Year

Equations
Risk = Cair*DBR*EF*CF*A*ASF*ED*FAH*CPF
HQ = Cair / REL

Where: HQ = Hazard Quotient — Cair = Exposure Concentration
DBR = Daily Breathing Rate — ASF = Age sensitivity factor
EF = Fraction of Year — ED = Fraction of Averaging time
A = Absorption Fraction — FAH = Fraction of Time at Home
CF = Conversion Factor — CPF = Cancer Potency Factor

	Toxicity Criteria					Cancer Risks					Hazard Quotients
TAC	Concentration at Location w/Maximum Risk (ug/m³)	EPA Inhalation CPF (mg/kg-day)⁻¹	CalEPA Inhalation CPF (mg/kg-day)⁻¹	EPA RfC (ug/m³)	CalEPA REL (ug/m³)	Cancer Risk to 9-year Child Resident	Cancer Risk to 9-year School Child	Cancer Risk to 12-year School Child	Cancer Risk to 30-year Resident	Cancer Risk to 70-year Resident	Hazard Quotient Resident
1,2,4-trimethylbenzene	-2.38E-04	NA	NA	7.00E+00	NA	NC	NC	NC	NC	NC	-3.40E-05
1,3-butadiene	-1.34E-04	1.05E-01	6.00E-01	2.00E+00	2.00E+00	-4.48E-08	-1.66E-08	-1.89E-08	-6.31E-08	-7.19E-08	-6.68E-05
2,2,4-trimethylpentane	-5.67E-04	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
acetaldehyde	-6.98E-05	7.70E-03	1.00E-02	9.00E+00	1.40E+02	-3.90E-10	-1.44E-10	-1.64E-10	-5.49E-10	-6.23E-10	-4.98E-07
acrolein	-3.20E-05	NA	NA	2.00E-02	3.50E-01	NC	NC	NC	NC	NC	-9.13E-05
benzene	-6.07E-04	2.73E-02	1.00E-01	3.00E+01	3.00E+00	-3.39E-08	-1.26E-08	-1.43E-08	-4.78E-08	-5.44E-08	-2.02E-04
cumene	-2.91E-06	NA	NA	4.00E+02	NA	NC	NC	NC	NC	NC	-7.27E-09
cyclohexane	-1.51E-04	NA	NA	6.00E+03	NA	NC	NC	NC	NC	NC	-2.52E-08
ethylbenzene	-2.59E-04	8.70E-03	8.70E-03	1.00E+03	2.00E+03	-1.26E-09	-4.66E-10	-5.29E-10	-1.77E-09	-2.02E-09	-1.29E-07
ethylene	-1.57E-03	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
formaldehyde	-3.89E-04	4.95E-02	2.10E-02	9.80E+00	9.00E+00	-4.57E-09	-1.69E-09	-1.92E-09	-6.43E-09	-7.33E-09	-4.33E-05
hexane, n-isoprene, except from vegetative emission sources	-3.92E-04	NA	NA	7.00E+02	7.00E+03	NC	NC	NC	NC	NC	-5.61E-08
methyl alcohol	-3.49E-05	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	-2.91E-05	NA	NA	2.00E+04	4.00E+03	NC	NC	NC	NC	NC	-7.27E-09
methyl ethyl ketone	-5.81E-06	NA	NA	5.00E+03	NA	NC	NC	NC	NC	NC	-1.16E-09
naphthalene	-1.16E-05	1.19E-01	1.20E-01	3.00E+00	9.00E+00	-7.76E-10	-2.89E-10	-3.28E-10	-1.10E-09	-1.25E-09	-1.29E-06
propionaldehyde	-8.72E-06	NA	NA	8.00E+00	NA	NC	NC	NC	NC	NC	-1.09E-06
propylene	-7.53E-04	NA	NA	3.00E+03	3.00E+03	NC	NC	NC	NC	NC	-2.51E-07
styrene	-2.91E-05	NA	NA	1.00E+03	9.00E+02	NC	NC	NC	NC	NC	-3.23E-08
toluene	-1.42E-03	NA	NA	5.00E+03	3.00E+02	NC	NC	NC	NC	NC	-4.72E-06
xylene (total)	-1.18E-03	NA	NA	1.00E+02	7.00E+02	NC	NC	NC	NC	NC	-1.69E-06
aluminum	3.74E-02	NA	NA	5.00E+00	NA	NC	NC	NC	NC	NC	7.48E-03
ammonium ion	1.02E-03	NA	NA	1.00E+02	2.00E+02	NC	NC	NC	NC	NC	5.10E-06
antimony	2.38E-05	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
arsenic	6.01E-06	1.51E+01	1.20E+01	1.50E-02	1.50E-02	4.03E-08	1.49E-08	1.70E-08	5.67E-08	6.47E-08	4.01E-04
barium	8.34E-03	NA	NA	5.00E-01	NA	NC	NC	NC	NC	NC	1.67E-02
bromine	1.19E-05	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
cadmium	1.05E-06	6.30E+00	1.50E+01	1.00E-02	2.00E-02	8.80E-09	3.28E-09	3.70E-09	1.24E-08	1.41E-08	5.25E-05
chlorine	8.43E-04	NA	NA	1.50E-01	2.00E-01	NC	NC	NC	NC	NC	4.22E-03
chromium (VI)	9.19E-06	4.20E+01	5.10E+02	1.00E-01	2.00E-01	2.62E-06	9.71E-07	1.10E-06	3.69E-06	4.20E-06	4.59E-05
cobalt	9.41E-06	NA	NA	6.00E-03	NA	NC	NC	NC	NC	NC	1.57E-03
copper	1.75E-03	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
lead	5.58E-05	NA	4.20E-02	NA	NA	1.31E-09	4.89E-10	5.51E-10	1.84E-09	2.10E-09	NC
manganese	5.33E-04	NA	NA	5.00E-02	9.00E-02	NC	NC	NC	NC	NC	5.92E-03
mercury	3.15E-06	NA	NA	3.00E-01	3.00E-02	NC	NC	NC	NC	NC	1.05E-04
nickel	1.04E-04	8.40E-01	9.10E-01	9.00E-02	1.40E-02	5.27E-08	1.95E-08	2.22E-08	7.42E-08	8.46E-08	7.41E-03
non-phosphate phosphorous	0.00E+00	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
phosphorus	9.92E-04	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
selenium	4.26E-06	NA	NA	2.00E+01	2.00E+01	NC	NC	NC	NC	NC	2.13E-07
silicon	1.16E-01	NA	NA	3.00E+00	3.00E+00	NC	NC	NC	NC	NC	3.87E-02
silver	0.00E+00	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
sulfates	7.13E-03	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
thallium	1.40E-06	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
vanadium	1.21E-04	NA	NA	1.00E-01	NA	NC	NC	NC	NC	NC	1.21E-03
zinc	5.36E-04	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
Diesel PM	3.02E-04	1.05E+00	1.10E+00	5.00E+00	5.00E+00	1.85E-07	6.87E-08	7.80E-08	2.61E-07	2.97E-07	6.03E-05
[1] Residential Maximum Grid No.	440				TOTAL	2.8E-06	1.0E-06	1.2E-06	4.0E-06	4.5E-06	0.08

NA = Not Available — ug/m³ = micrograms per cubic meter
NC = Not Calculated — mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-4.4
2015 OEHHA Hazard Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project Operations with 2024-2027 Mitigated Construction - Worker Scenario
(Based on Peak Location of Commercial Cancer Risks[1])

Equations
Risk = Cair*DBR*EF*CF*A*ASF*ED*FAH*CPF
HQ = Cair / REL

Where: HQ = Hazard Quotient — Cair = Exposure Concentration
DBR = Daily Breathing Rate — ASF = Age sensitivity factor
EF = Fraction of Year — ED = Fraction of Averaging time
A = Absorption Fraction — FAH = Fraction of Time at Home
CF = Conversion Factor — CPF = Cancer Potency Factor

	Hazard Quotient to Worker															
	Construction by Year					Operations										
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035				
TAC																
1,2,4-trimethylbenzene	4.10E-07	1.17E-08	1.17E-08	3.51E-08	6.84E-04	6.60E-04	6.56E-04	6.53E-04	6.49E-04	6.45E-04	6.42E-04	6.38E-04	6.34E-04	6.30E-04	6.27E-04	6.23E-04
1,3-butadiene	8.05E-07	2.30E-08	2.30E-08	6.90E-08	1.30E-03	1.30E-03	1.29E-03	1.28E-03	1.27E-03	1.27E-03	1.26E-03	1.25E-03	1.25E-03	1.24E-03	1.23E-03	1.22E-03
2,2,4-trimethylpentane	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	6.00E-09	1.71E-10	1.71E-10	5.14E-10	9.72E-06	9.66E-06	9.61E-06	9.55E-06	9.50E-06	9.44E-06	9.39E-06	9.34E-06	9.28E-06	9.23E-06	9.17E-06	9.12E-06
acrolein	1.10E-06	3.14E-08	3.14E-08	9.43E-08	1.78E-03	1.77E-03	1.76E-03	1.75E-03	1.74E-03	1.73E-03	1.72E-03	1.71E-03	1.70E-03	1.69E-03	1.68E-03	1.67E-03
benzene	2.44E-06	6.97E-08	6.97E-08	2.09E-07	3.95E-03	3.93E-03	3.90E-03	3.88E-03	3.86E-03	3.84E-03	3.82E-03	3.79E-03	3.77E-03	3.75E-03	3.73E-03	3.71E-03
cumene	8.75E-11	2.50E-12	2.50E-12	7.50E-12	1.42E-07	1.41E-07	1.40E-07	1.39E-07	1.38E-07	1.37E-07	1.36E-07	1.35E-07	1.35E-07	1.34E-07	1.33E-07	
cyclohexane	3.03E-10	8.67E-12	8.67E-12	2.60E-11	4.91E-07	4.88E-07	4.86E-07	4.83E-07	4.80E-07	4.77E-07	4.75E-07	4.72E-07	4.69E-07	4.66E-07	4.64E-07	4.61E-07
ethylbenzene	1.04E-08	4.45E-11	8.57E-10	7.91E-09	2.52E-06	2.51E-06	2.49E-06	2.48E-06	2.47E-06	2.45E-06	2.44E-06	2.42E-06	2.41E-06	2.39E-06	2.38E-06	2.37E-06
ethylene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	5.21E-07	1.49E-08	1.49E-08	4.47E-08	8.44E-04	8.39E-04	8.34E-04	8.30E-04	8.25E-04	8.20E-04	8.15E-04	8.11E-04	8.06E-04	8.01E-04	7.97E-04	7.92E-04
hexane, n-isoprene, except from vegetati	6.75E-10	1.93E-11	1.93E-11	5.79E-11	1.09E-06	1.09E-06	1.08E-06	1.07E-06	1.07E-06	1.06E-06	1.06E-06	1.05E-06	1.04E-06	1.04E-06	1.03E-06	1.03E-06
isoprene, except from vegetati	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	8.75E-11	2.50E-12	2.50E-12	7.50E-12	1.42E-07	1.41E-07	1.40E-07	1.39E-07	1.39E-07	1.38E-07	1.37E-07	1.36E-07	1.35E-07	1.35E-07	1.34E-07	1.33E-07
methyl ethyl ketone	1.40E-11	4.00E-13	4.00E-13	1.20E-12	2.27E-08	2.25E-08	2.24E-08	2.23E-08	2.22E-08	2.20E-08	2.19E-08	2.18E-08	2.17E-08	2.15E-08	2.14E-08	2.13E-08
naphthalene	1.56E-08	4.44E-10	4.44E-10	1.33E-09	2.52E-05	2.50E-05	2.49E-05	2.48E-05	2.46E-05	2.45E-05	2.43E-05	2.42E-05	2.41E-05	2.39E-05	2.38E-05	2.36E-05
propionaldehyde	1.31E-08	3.75E-10	3.75E-10	1.13E-09	2.13E-05	2.11E-05	2.10E-05	2.09E-05	2.08E-05	2.07E-05	2.05E-05	2.04E-05	2.03E-05	2.02E-05	2.01E-05	1.99E-05
propylene	3.02E-09	8.63E-11	8.63E-11	2.59E-10	4.89E-06	4.87E-06	4.84E-06	4.81E-06	4.78E-06	4.76E-06	4.73E-06	4.70E-06	4.67E-06	4.65E-06	4.62E-06	4.59E-06
styrene	3.89E-10	1.11E-11	1.11E-11	3.33E-11	6.30E-07	6.26E-07	6.23E-07	6.19E-07	6.16E-07	6.12E-07	6.09E-07	6.05E-07	6.02E-07	5.98E-07	5.94E-07	5.91E-07
toluene	2.22E-07	1.62E-09	1.67E-08	1.49E-07	9.20E-05	9.15E-05	9.10E-05	9.05E-05	8.99E-05	8.94E-05	8.89E-05	8.84E-05	8.79E-05	8.74E-05	8.69E-05	8.63E-05
xylene (total)	6.08E-08	5.81E-10	4.31E-09	3.74E-08	3.30E-05	3.28E-05	3.26E-05	3.24E-05	3.22E-05	3.20E-05	3.18E-05	3.17E-05	3.15E-05	3.13E-05	3.11E-05	3.09E-05
aluminum	8.49E-05	4.25E-05	3.99E-06	4.31E-05	3.71E-04	1.99E-03	3.61E-03	5.23E-03	6.85E-03	8.48E-03	1.01E-02	1.17E-02	1.33E-02	1.50E-02	1.66E-02	1.82E-02
ammonium ion	3.83E-09	1.78E-09	1.78E-10	1.84E-09	2.53E-07	1.36E-06	2.46E-06	3.57E-06	4.67E-06	5.78E-06	6.88E-06	7.99E-06	9.10E-06	1.02E-05	1.13E-05	1.24E-05
antimony	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
arsenic	7.63E-06	3.60E-06	3.49E-07	3.69E-06	2.00E-05	1.07E-04	1.94E-04	2.81E-04	3.67E-04	4.54E-04	5.41E-04	6.28E-04	7.15E-04	8.01E-04	8.88E-04	9.75E-04
barium	8.59E-05	7.54E-06	2.58E-06	1.41E-05	8.55E-04	4.46E-03	8.07E-03	1.17E-02	1.53E-02	1.89E-02	2.25E-02	2.61E-02	2.97E-02	3.33E-02	3.69E-02	4.06E-02
bromine	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cadmium	8.72E-06	4.37E-06	4.10E-07	4.43E-06	2.60E-06	1.40E-05	2.53E-05	3.67E-05	4.81E-05	5.95E-05	7.08E-05	8.22E-05	9.36E-05	1.05E-04	1.16E-04	1.28E-04
chlorine	1.22E-04	4.82E-05	5.00E-06	5.31E-05	3.41E-04	1.77E-03	1.99E-03	2.82E-03	3.64E-03	4.47E-03	5.29E-03	6.12E-03	6.94E-03	7.76E-03	8.59E-03	9.41E-03
chromium (VI)	5.12E-07	1.56E-07	1.98E-08	1.76E-07	2.40E-06	1.23E-05	2.22E-05	3.22E-05	4.21E-05	5.20E-05	6.19E-05	7.18E-05	8.17E-05	9.17E-05	1.02E-04	1.11E-04
cobalt	1.04E-04	5.04E-05	4.73E-06	5.11E-05	1.08E-04	4.27E-04	7.46E-04	1.06E-03	1.38E-03	1.70E-03	2.02E-03	2.34E-03	2.66E-03	2.98E-03	3.30E-03	3.61E-03
copper	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
lead	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
manganese	7.10E-05	2.92E-05	3.07E-06	3.07E-05	3.01E-04	1.58E-03	2.86E-03	4.15E-03	5.43E-03	6.71E-03	7.99E-03	9.27E-03	1.06E-02	1.18E-02	1.31E-02	1.44E-02
mercury	2.98E-05	1.49E-05	1.40E-06	1.51E-05	5.20E-06	7.34E-05	9.62E-05	1.19E-04	1.44E-04	1.64E-04	1.87E-04	2.10E-04	2.33E-04	2.55E-04		
nickel	5.99E-05	1.36E-05	2.12E-06	1.67E-05	3.93E-04	1.99E-03	3.58E-03	5.18E-03	6.77E-03	8.37E-03	9.96E-03	1.16E-02	1.31E-02	1.47E-02	1.63E-02	1.79E-02
non-phosphate phosphorous	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
phosphorus	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
selenium	1.58E-09	3.76E-10	6.15E-11	4.61E-10	1.09E-08	5.70E-08	1.03E-07	1.49E-07	1.95E-07	2.41E-07	2.88E-07	3.34E-07	3.80E-07	4.26E-07	4.72E-07	5.18E-07
silicon	3.80E-04	1.83E-04	1.75E-05	1.87E-04	1.92E-03	1.03E-02	1.87E-02	2.71E-02	3.55E-02	4.39E-02	5.23E-02	6.07E-02	6.91E-02	7.75E-02	8.59E-02	9.43E-02
silver	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
sulfates	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
thallium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
vanadium	1.95E-05	7.61E-06	8.27E-07	8.11E-06	6.19E-05	3.25E-04	5.88E-04	8.50E-04	1.11E-03	1.38E-03	1.64E-03	1.90E-03	2.16E-03	2.43E-03	2.69E-03	2.95E-03
zinc	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Diesel PM	7.00E-05	2.00E-05	4.00E-06	2.20E-05	9.09E-06	5.76E-05	1.06E-04	1.55E-04	2.03E-04	2.52E-04	3.00E-04	3.49E-04	3.97E-04	4.46E-04	4.95E-04	5.43E-04
TOTAL	0.001	0.00	0.000	0.00	0.01	0.03	0.05	0.07	0.09	0.10	0.12	0.14	0.16	0.18	0.19	0.21

NA = Not Available — ug/m³ = micrograms per cubic meter
NC = Not Calculated — mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Attachment 1 - Cancer Risk and Chronic Non-Canc

Table 1-5.3
2035 OEHHA Risk Calculation for LAX Landside Access Modernization Program, 2035 With Project vs. 2035 Without Project Operations
- Lifetime Exposure (Based on Peak Location of Commercial Cancer Risks[1])

Exposure Parameters	Ages 16<30	Ages 16<70
Worker 8-Hr Daily Breathing Rate (DBR)	240 L/kg-d	230 L/kg-d
Fraction of Year (EF)	0.68 unitless	0.68 unitless
Absorption Fraction (A)	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m3/L	0.000001 m3/L
Age-adjustment (ASF)	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.20 unitless	0.157 unitless
Worker Adjustment Factor (WAH)	1 unitless	1 unitless

	Start Age	End Age	Equations
Worker	16	41 Year	Risk = Car*DBR*EF*CF*A*ASF*ED*FAH*CDBR = Daily Breathing Rate HQ = Car / REL

Where: HQ = Hazard Quotient
EF = Fraction of Year
A = Absorption Fraction
CF = Conversion Factor

Car = Exposure Concentration
ASF = Age sensitivity factor
ED = Fraction of Averaging time
FAH = Fraction of Time at Home
CPF = Cancer Potency Factor

	Toxicity Criteria					Cancer Risks	Hazard Quotients
TAC	Concentration at Location w/Maximum Risk (ug/m³)	EPA Inhalation CPF (mg/kg-day)⁻¹	CalEPA Inhalation CPF (mg/kg-day)⁻¹	EPA RfC (ug/m³)	CalEPA REL (ug/m³)	Cancer Risk to Worker	Hazard Quotient Worker
1,2,4-trimethylbenzene	2.33E-02	NA	NA	7.00E+00	NA	NC	3.32E-03
1,3-butadiene	1.32E-02	1.05E-01	6.00E-01	2.00E+00	2.00E+00	4.51E-07	6.52E-03
2,2,4-trimethylpentane	5.53E-02	NA	NA	NA	NA	NC	NC
acetaldehyde	6.81E-03	7.70E-03	1.00E-02	9.00E+00	1.40E+02	3.92E-09	4.86E-05
acrolein	3.12E-03	NA	NA	2.00E-02	3.50E-01	NC	8.91E-03
benzene	5.93E-02	2.73E-02	1.00E-01	3.00E+01	3.00E+00	3.42E-07	1.98E-02
cumene	2.84E-04	NA	NA	4.00E+02	NA	NC	7.09E-07
cyclohexane	1.48E-02	NA	NA	6.00E+03	NA	NC	2.46E-06
ethylbenzene	2.52E-02	8.70E-03	8.70E-03	1.00E+03	2.00E+03	1.27E-08	1.26E-05
ethylene	1.63E-01	NA	NA	NA	NA	NC	NC
formaldehyde	3.80E-02	4.55E-02	2.10E-02	9.80E+00	9.00E+00	4.60E-08	4.22E-03
hexane, n-	3.83E-02	NA	NA	7.00E+02	7.00E+03	NC	5.47E-06
isoprene, except from vegetative emission sources	3.40E-03	NA	NA	NA	NA	NC	NC
methyl alcohol	2.84E-03	NA	NA	2.00E+04	4.00E+03	NC	7.09E-07
methyl ethyl ketone	5.67E-04	NA	NA	5.00E+03	NA	NC	1.13E-07
naphthalene	1.13E-03	1.19E-01	1.20E-01	3.00E+00	9.00E+00	7.85E-09	1.35E-04
propionaldehyde	8.51E-04	NA	NA	8.00E+00	NA	NC	1.06E-04
propylene	7.33E-02	NA	NA	3.00E+03	3.00E+03	NC	2.45E-05
styrene	2.84E-03	NA	NA	1.00E+03	9.00E+02	NC	3.15E-06
toluene	1.38E-01	NA	NA	5.00E+03	3.00E+02	NC	4.60E-04
xylene (total)	1.15E-01	NA	NA	1.00E+02	7.00E+02	NC	1.65E-04
aluminum	4.19E-02	NA	NA	5.00E+00	NA	NC	8.38E-03
ammonium ion	1.14E-03	NA	NA	1.00E+02	2.00E+02	NC	5.71E-06
antimony	2.66E-05	NA	NA	NA	NA	NC	NC
arsenic	6.73E-06	1.51E+01	1.20E+01	1.50E-02	1.80E-02	4.63E-09	4.49E-04
barium	9.33E-03	NA	NA	5.00E-01	NA	NC	1.87E-02
bromine	1.39E-05	NA	NA	NA	NA	NC	NC
cadmium	1.18E-05	6.30E+00	1.80E+01	1.00E-02	2.00E-02	1.02E-09	5.88E-05
chlorine	1.03E-03	NA	NA	1.50E-01	2.00E-01	NC	5.15E-03
chromium (VI)	1.03E-05	4.20E+01	5.10E+02	1.00E-01	2.00E-01	3.03E-07	5.16E-05
cobalt	1.11E-05	NA	NA	6.00E-03	NA	NC	1.86E-03
copper	1.59E-03	NA	NA	NA	NA	NC	NC
lead	6.24E-05	NA	4.20E-02	NA	NA	1.51E-10	NC
manganese	5.97E-04	NA	NA	5.00E-02	9.00E-02	NC	6.64E-03
mercury	3.53E-06	NA	NA	3.00E-01	3.00E-02	NC	1.18E-04
nickel	1.17E-04	8.40E-01	9.10E-01	9.00E-02	1.40E-02	6.12E-09	8.34E-03
non-phosphate phosphorous	0.00E+00	NA	NA	NA	NA	NC	NC
phosphorus	1.11E-03	NA	NA	NA	NA	NC	NC
selenium	4.77E-06	NA	NA	2.00E+01	2.00E+01	NC	2.38E-07
silicon	1.30E-01	NA	NA	3.00E+00	3.00E+00	NC	4.34E-02
silver	0.00E+00	NA	NA	NA	NA	NC	NC
sulfates	8.54E-03	NA	NA	NA	NA	NC	NC
thallium	1.57E-06	NA	NA	NA	NA	NC	NC
vanadium	1.39E-04	NA	NA	1.00E-01	NA	NC	1.39E-03
zinc	6.23E-04	NA	NA	NA	NA	NC	NC
Diesel PM	2.28E-04	1.05E+00	1.10E+00	5.00E+00	5.00E+00	1.44E-08	4.55E-05
[1] Commercial Maximum Grid No.	888				TOTAL	1.2E-06	0.14

NA = Not Available
NC = Not Calculated
ug/m³ = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Operation
1-6 (Not Used)

Uncertainty Analysis

Operation
1-7 2024 Without Project vs. 2014 Baseline

Operation
1-8 2024 With Project vs. 2014 Baseline

Operation
1-9 2035 Without Project vs. 2014 Baseline

Operation
1-10 2035 With Project vs. 2014 Baseline

Table 1-5.4
2035 OEHHA Risk Calculation for LAX Landside Access Modernization Program, 2035 With Project vs. 2035 Without Project Operations
- Lifetime Exposure (Based on Peak Location of Commercial Hazards[1])

Exposure Parameters	Ages 16<30	Ages 16<70
Worker 8-Hr Daily Breathing Rate (DBR)	240 L/kg-d	230 L/kg-d
Fraction of Year (EF)	0.68 unitless	0.68 unitless
Absorption Fraction (A)	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m3/L	0.000001 m3/L
Age-adjustment (ASF)	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.20 unitless	0.157 unitless
Worker Adjustment Factor (WAH)	1 unitless	1 unitless

	Start Age	End Age	Equations
Worker	16	41 Year	Risk = Car*DBR*EF*CF*A*ASF*ED*FAH*CDBR = Daily Breathing Rate HQ = Car / REL

Where: HQ = Hazard Quotient
EF = Fraction of Year
A = Absorption Fraction
CF = Conversion Factor

Car = Exposure Concentration
ASF = Age sensitivity factor
ED = Fraction of Averaging time
FAH = Fraction of Time at Home
CPF = Cancer Potency Factor

	Toxicity Criteria					Cancer Risks	Hazard Quotients
TAC	Concentration at Location w/Maximum Risk (ug/m³)	EPA Inhalation CPF (mg/kg-day)⁻¹	CalEPA Inhalation CPF (mg/kg-day)⁻¹	EPA RfC (ug/m³)	CalEPA REL (ug/m³)	Cancer Risk to Worker	Hazard Quotient Worker
1,2,4-trimethylbenzene	4.36E-03	NA	NA	7.00E+00	NA	NC	6.23E-04
1,3-butadiene	2.46E-03	1.05E-01	6.00E-01	2.00E+00	2.00E+00	8.46E-08	1.22E-03
2,2,4-trimethylpentane	1.04E-02	NA	NA	NA	NA	NC	NC
acetaldehyde	1.28E-03	7.70E-03	1.00E-02	9.00E+00	1.40E+02	7.36E-10	9.12E-06
acrolein	5.85E-04	NA	NA	2.00E-02	3.50E-01	NC	1.67E-03
benzene	1.11E-02	2.73E-02	1.00E-01	3.00E+01	3.00E+00	6.41E-08	3.71E-03
cumene	5.32E-05	NA	NA	4.00E+02	NA	NC	1.33E-07
cyclohexane	2.77E-03	NA	NA	6.00E+03	NA	NC	4.61E-07
ethylbenzene	4.72E-03	8.70E-03	8.70E-03	1.00E+03	2.00E+03	2.37E-09	2.37E-06
ethylene	2.87E-02	NA	NA	NA	NA	NC	NC
formaldehyde	7.13E-03	4.55E-02	2.10E-02	9.80E+00	9.00E+00	8.63E-09	7.92E-04
hexane, n-	7.18E-03	NA	NA	7.00E+02	7.00E+03	NC	1.03E-06
isoprene, except from vegetative emission sources	6.38E-04	NA	NA	NA	NA	NC	NC
methyl alcohol	5.32E-04	NA	NA	2.00E+04	4.00E+03	NC	1.33E-07
methyl ethyl ketone	1.06E-04	NA	NA	5.00E+03	NA	NC	2.13E-08
naphthalene	2.13E-04	1.19E-01	1.20E-01	3.00E+00	9.00E+00	1.47E-09	2.36E-05
propionaldehyde	1.60E-04	NA	NA	8.00E+00	NA	NC	1.99E-05
propylene	1.38E-02	NA	NA	3.00E+03	3.00E+03	NC	4.59E-06
styrene	5.32E-04	NA	NA	1.00E+03	9.00E+02	NC	5.91E-07
toluene	2.59E-02	NA	NA	5.00E+03	3.00E+02	NC	8.63E-05
xylene (total)	2.16E-02	NA	NA	1.00E+02	7.00E+02	NC	3.09E-05
aluminum	9.10E-02	NA	NA	5.00E+00	NA	NC	1.82E-02
ammonium ion	2.48E-03	NA	NA	1.00E+02	2.00E+02	NC	1.24E-05
antimony	5.76E-05	NA	NA	NA	NA	NC	NC
arsenic	1.46E-05	1.51E+01	1.20E+01	1.50E-02	1.80E-02	1.01E-08	9.75E-04
barium	2.03E-02	NA	NA	5.00E-01	NA	NC	4.06E-02
bromine	2.77E-05	NA	NA	NA	NA	NC	NC
cadmium	2.55E-06	6.30E+00	1.80E+01	1.00E-02	2.00E-02	2.21E-09	1.28E-04
chlorine	1.88E-03	NA	NA	1.50E-01	2.00E-01	NC	9.41E-03
chromium (VI)	2.23E-05	4.20E+01	5.10E+02	1.00E-01	2.00E-01	6.55E-07	1.11E-04
cobalt	2.17E-05	NA	NA	6.00E-03	NA	NC	3.61E-03
copper	4.26E-03	NA	NA	NA	NA	NC	NC
lead	1.36E-04	NA	4.20E-02	NA	NA	3.28E-10	NC
manganese	1.30E-03	NA	NA	5.00E-02	9.00E-02	NC	1.44E-02
mercury	7.66E-06	NA	NA	3.00E-01	3.00E-02	NC	2.55E-04
nickel	2.51E-04	8.40E-01	9.10E-01	9.00E-02	1.40E-02	1.32E-08	1.79E-02
non-phosphate phosphorous	0.00E+00	NA	NA	NA	NA	NC	NC
phosphorus	2.41E-03	NA	NA	NA	NA	NC	NC
selenium	1.04E-05	NA	NA	2.00E+01	2.00E+01	NC	5.18E-07
silicon	2.83E-01	NA	NA	3.00E+00	3.00E+00	NC	9.43E-02
silver	0.00E+00	NA	NA	NA	NA	NC	NC
sulfates	1.83E-02	NA	NA	NA	NA	NC	NC
thallium	3.41E-06	NA	NA	NA	NA	NC	NC
vanadium	2.95E-04	NA	NA	1.00E-01	NA	NC	2.95E-03
zinc	1.35E-03	NA	NA	NA	NA	NC	NC
Diesel PM	2.72E-03	1.05E+00	1.10E+00	5.00E+00	5.00E+00	1.72E-07	5.43E-04
[1] Commercial Maximum Grid No.	832				TOTAL	1.0E-06	0.21

NA = Not Available
NC = Not Calculated
ug/m³ = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2017

Table 1-7.1C
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2024 Without Project vs. 2014 Baseline Operations - Screening Analysis
- Lifetime Exposure, Child Resident Scenario (Maximum 2025-2028)
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	3rd Trimester	Ages 0<2	Ages 2<9	Start Age	End Age
Daily Breathing Rate (DBR)	361 L/kg-d	1090 L/kg-d	631 L/kg-d	Child Resident	0	9 Year
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless	School Child	7	16 Year
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless	30-year Resident	0	30 Year
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	70-year Resident	0	70 Year
Age-adjustment (ASF)	10 unitless	10 unitless	3 unitless			
Fraction of Averaging Time (ED)	0.00357 unitless	0.01429 unitless	0.01429 unitless			
Fraction of Time at Home (FAH)	1.00 unitless	1.00 unitless	1.00 unitless			

Equations
Risk = Car*DBR*EF*CF*A*ASF*ED*FAH*CPF
HQ = Car / REL
Where: HQ = Hazard Quotient — Car = Exposure Concentration
DBR = Daily Breathing Rate — ASF = Age sensitivity factor
EF = Fraction of Year — ED = Fraction of Averaging time
A = Absorption Fraction — FAH = Fraction of Time at Home
CF = Conversion Factor — CPF = Cancer Potency Factor

	Start Age	End Age
Child Resident	0	9 Year
School Child	7	18 Year
30-year Resident	0	30 Year
70-year Resident	0	70 Year

TAC	Concentration at Location w/Maximum Risk (ug/m³) Operation by Year 2024	2025	2026	2027	2028	2029	2030	2031	2032	Toxicity Criteria EPA Inhalation CPF (mg/kg-day)$^{-1}$	Cal/EPA Inhalation CPF (mg/kg-day)$^{-1}$	Cancer Risk at Location w/Maximum Risk (per million) Operation by Year 2024	2025	2026	2027	2028	2029	2030	2031	2032	TOTAL 2024-2029 6-yr Child Resident for Max Location	TOTAL 2024-2032 9-yr Child Resident for Max Location
1,2,4-trimethylbenzene	-1.19E-04	-1.19E-04	-1.23E-04	-1.27E-04	-1.30E-04	-1.34E-04	-1.38E-04	-1.42E-04	-1.46E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	-6.17E-05	-6.39E-05	-6.61E-05	-6.83E-05	-7.05E-05	-7.27E-05	-7.49E-05	-7.70E-05	-7.92E-05	1.05E-01	6.00E-01	-5.99E-09	-5.73E-09	-5.47E-09	-5.21E-09	-4.95E-09	-4.69E-09	-4.43E-09	-4.17E-09	-3.91E-09	-2.25E-08
2,2,4-trimethylpentane	-2.49E-04	-2.58E-04	-2.67E-04	-2.77E-04	-2.86E-04	-2.95E-04	-3.05E-04	-3.14E-04	-3.23E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	-2.16E-04	-2.17E-04	-2.18E-04	-2.19E-04	-2.20E-04	-2.20E-04	-2.21E-04	-2.22E-04	-2.23E-04	-2.24E-04	-2.25E-04	-2.25E-04	7.70E-03	1.00E-02	-3.93E-10	-3.24E-10	-6.67E-11	-6.70E-11	-6.72E-11	-6.75E-11	-1.73E-09
acrolein	-1.36E-05	-1.41E-05	-1.47E-05	-1.52E-05	-1.57E-05	-1.62E-05	-1.68E-05	-1.73E-05	-1.78E-05	-1.83E-05	-1.89E-05	-1.94E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC
benzene	-3.09E-04	-3.19E-04	-3.29E-04	-3.39E-04	-3.49E-04	-3.59E-04	-3.69E-04	-3.79E-04	-3.88E-04	-3.98E-04	-4.08E-04	-4.18E-04	2.73E-02	1.00E-01	-1.16E-08	-9.58E-09	-1.97E-09	-1.98E-09	-1.98E-09	-1.99E-09	-6.66E-08
cumene	-1.75E-06	-1.79E-06	-1.84E-06	-1.89E-06	-1.93E-06	-1.98E-06	-2.03E-06	-2.07E-06	-2.12E-06	-2.17E-06	-2.21E-06	-2.26E-06	NA	NA	NC	NC	NC	NC	NC	NC	NC
cyclohexane	-6.51E-05	-6.76E-05	-7.01E-05	-7.25E-05	-7.50E-05	-7.75E-05	-8.00E-05	-8.25E-05	-8.49E-05	-8.74E-05	-8.99E-05	-9.24E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	-1.18E-04	-1.22E-04	-1.26E-04	-1.31E-04	-1.35E-04	-1.39E-04	-1.43E-04	-1.48E-04	-1.52E-04	-1.56E-04	-1.60E-04	-1.65E-04	8.75E-03	8.70E-03	-1.66E-10	-1.59E-10	-3.37E-11	-3.40E-11	-3.39E-11	-3.37E-11	-3.82E-10
ethylene	-1.03E-03	-1.06E-03	-1.08E-03	-1.11E-03	-1.13E-03	-1.16E-03	-1.18E-03	-1.21E-03	-1.23E-03	-1.26E-03	-1.28E-03	-1.31E-03	NA	NA	NC	NC	NC	NC	NC	NC	NC
formaldehyde	-5.39E-04	-5.45E-04	-5.51E-04	-5.56E-04	-5.62E-04	-5.68E-04	-5.74E-04	-5.80E-04	-5.85E-04	-5.91E-04	-5.97E-04	-6.03E-04	4.55E-02	2.10E-02	-1.83E-09	-1.71E-09	-3.54E-10	-3.58E-10	-3.61E-10	-3.64E-10	-4.11E-09
hexane, n-isoprene, except from vegetative emission sources	-1.71E-04	-1.78E-04	-1.84E-04	-1.90E-04	-1.97E-04	-2.03E-04	-2.10E-04	-2.16E-04	-2.22E-04	-2.29E-04	-2.35E-04	-2.42E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	-1.31E-05	-1.36E-05	-1.41E-05	-1.46E-05	-1.51E-05	-1.55E-05	-1.60E-05	-1.65E-05	-1.69E-05	-1.74E-05	-1.79E-05	-1.84E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	-4.00E-05	-4.01E-05	-4.01E-05	-4.01E-05	-4.02E-05	-4.02E-05	-4.02E-05	-4.03E-05	-4.03E-05	-4.03E-05	-4.04E-05	-4.04E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC
naphthalene	-7.23E-06	-7.42E-06	-7.61E-06	-7.79E-06	-7.98E-06	-8.17E-06	-8.36E-06	-8.54E-06	-8.73E-06	-8.92E-06	-9.10E-06	-9.29E-06	1.19E-01	1.20E-01	-1.40E-10	-1.33E-10	-2.80E-11	-2.86E-11	-2.93E-11	-3.00E-11	-3.07E-11
propionaldehyde	-2.83E-05	-2.84E-05	-2.85E-05	-2.86E-05	-2.87E-05	-2.88E-05	-2.89E-05	-2.91E-05	-2.92E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
propylene	-3.87E-04	-3.99E-04	-4.11E-04	-4.23E-04	-4.35E-04	-4.48E-04	-4.60E-04	-4.72E-04	-4.84E-04	-4.97E-04	-5.09E-04	-5.21E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC
styrene	-1.39E-05	-1.44E-05	-1.48E-05	-1.53E-05	-1.58E-05	-1.63E-05	-1.67E-05	-1.72E-05	-1.77E-05	-1.82E-05	-1.86E-05	-1.91E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC
toluene	-6.40E-04	-6.63E-04	-6.86E-04	-7.09E-04	-7.32E-04	-7.55E-04	-7.78E-04	-8.02E-04	-8.25E-04	-8.48E-04	-8.71E-04	-8.94E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC
xylene (total)	-5.30E-04	-5.50E-04	-5.69E-04	-5.88E-04	-6.08E-04	-6.27E-04	-6.46E-04	-6.66E-04	-6.85E-04	-7.04E-04	-7.24E-04	-7.43E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC
aluminum	-1.56E+00	-1.56E+00	-1.56E+00	-1.56E+00	-1.56E+00	-1.56E+00	-1.57E+00	-1.57E+00	-1.57E+00	-1.57E+00	-1.57E+00	-1.57E+00	NA	NA	NC	NC	NC	NC	NC	NC	NC
ammonium ion	-4.26E-02	-4.25E-02	-4.25E-02	-4.26E-02	-4.26E-02	-4.26E-02	-4.27E-02	-4.27E-02	-4.27E-02	-4.27E-02	-4.28E-02	-4.28E-02	NA	NA	NC	NC	NC	NC	NC	NC	NC
antimony	-2.51E-04	-2.51E-04	-2.51E-04	-2.51E-04	-2.51E-04	-2.51E-04	-2.51E-04	-2.52E-04	-2.52E-04	-2.52E-04	-2.52E-04	-2.52E-04	1.51E+01	1.20E+01	-4.86E-07	-4.49E-07	-9.21E-08	-9.22E-08	-9.23E-08	-9.21E-08	-9.24E-08
arsenic	-3.48E-01	-3.48E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.46E-01	NA	NA	NC	NC	NC	NC	NC	NC	NC
barium	-3.48E-01	-3.48E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.46E-01	-3.46E-01	NA	NA	NC	NC	NC	NC	NC	NC	NC
bromine	-4.49E-04	-4.49E-04	-4.49E-04	-4.49E-04	-4.49E-04	-4.49E-04	-4.49E-04	-4.49E-04	-4.49E-04	-4.50E-04	-4.50E-04	-4.50E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC
cadmium	-4.38E-05	-4.38E-05	-4.39E-05	-4.39E-05	-4.39E-05	-4.40E-05	-4.40E-05	-4.41E-05	-4.41E-05	-4.42E-05	-4.42E-05	-4.43E-05	6.30E+00	1.50E+01	-1.06E-07	-9.83E-08	-2.33E-08	-2.33E-08	-2.33E-08	-2.33E-08	-2.34E-08
chlorine	-2.86E-02	-2.86E-02	-2.86E-02	-2.86E-02	-2.86E-02	-2.86E-02	-2.87E-02	-2.87E-02	-2.87E-02	-2.87E-02	-2.87E-02	-2.87E-02	NA	NA	NC	NC	NC	NC	NC	NC	NC
chromium (VI)	-7.39E-03	-7.38E-03	-7.38E-03	-7.38E-03	-7.37E-03	-7.37E-03	-7.37E-03	-7.36E-03	-7.36E-03	-7.36E-03	-7.35E-03	-7.35E-03	4.20E+01	5.10E+02	-6.69E-04	-6.62E-04	-1.15E-04	-1.15E-04	-1.15E-04	-1.15E-04	-1.15E-04
cobalt	-3.45E-04	-3.45E-04	-3.45E-04	-3.46E-04	-3.46E-04	-3.46E-04	-3.47E-04	-3.47E-04	-3.47E-04	-3.47E-04	-3.48E-04	-3.48E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC
copper	-7.29E-02	-7.29E-02	-7.28E-02	-7.28E-02	-7.28E-02	-7.28E-02	-7.27E-02	-7.27E-02	-7.27E-02	-7.26E-02	-7.26E-02	-7.26E-02	NA	NA	NC	NC	NC	NC	NC	NC	NC
lead	-2.32E-03	-2.33E-03	-2.33E-03	-2.33E-03	-2.33E-03	-2.33E-03	-2.33E-03	-2.33E-03	-2.34E-03	-2.34E-03	-2.34E-03	-2.34E-03	4.20E-02								
manganese	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	NA	NA	NC	NC	NC	NC	NC	NC	NC
mercury	-1.31E-04	-1.31E-04	-1.31E-04	-1.32E-04	-1.32E-04	-1.32E-04	-1.32E-04	-1.32E-04	-1.32E-04	-1.32E-04	-1.32E-04	-1.32E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC
nickel	-4.28E-03	-4.28E-03	-4.27E-03	-4.27E-03	-4.27E-03	-4.27E-03	-4.27E-03	-4.27E-03	-4.26E-03	-4.26E-03	-4.26E-03	-4.26E-03	8.40E-01	9.10E-01	-6.30E-07	-5.81E-07	-1.19E-07	-1.19E-07	-1.19E-07	-1.19E-07	-1.19E-07
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
phosphorus	-4.13E-02	-4.14E-02	-4.14E-02	-4.14E-02	-4.15E-02	-4.15E-02	-4.15E-02	-4.16E-02	-4.16E-02	-4.16E-02	-4.17E-02	-4.17E-02	NA	NA	NC	NC	NC	NC	NC	NC	NC
selenium	-1.78E-04	-1.78E-04	-1.78E-04	-1.78E-04	-1.77E-04	-1.77E-04	-1.77E-04	-1.77E-04	-1.77E-04	-1.77E-04	-1.77E-04	-1.77E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC
silicon	-4.84E+00	-4.85E+00	-4.85E+00	-4.86E+00	-4.86E+00	-4.86E+00	-4.87E+00	-4.87E+00	-4.87E+00	-4.88E+00	-4.88E+00	-4.88E+00	NA	NA	NC	NC	NC	NC	NC	NC	NC
silver	-5.00E-08	-5.04E-08	-5.08E-08	-5.12E-08	-5.17E-08	-5.21E-08	-5.25E-08	-5.29E-08	-5.33E-08	-5.37E-08	-5.41E-08	-5.46E-08	NA	NA	NC	NC	NC	NC	NC	NC	NC
sulfates	-2.55E-01	-2.55E-01	-2.55E-01	-2.55E-01	-2.55E-01	-2.55E-01	-2.55E-01	-2.55E-01	-2.55E-01	-2.55E-01	-2.55E-01	-2.55E-01	NA	NA	NC	NC	NC	NC	NC	NC	NC
thallium	-5.83E-05	-5.84E-05	-5.84E-05	-5.84E-05	-5.85E-05	-5.85E-05	-5.86E-05	-5.86E-05	-5.87E-05	-5.87E-05	-5.88E-05	-5.88E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC
vanadium	-5.06E-03	-5.06E-03	-5.06E-03	-5.06E-03	-5.06E-03	-5.06E-03	-5.06E-03	-5.06E-03	-5.06E-03	-5.05E-03	-5.05E-03	-5.05E-03	NA	NA	NC	NC	NC	NC	NC	NC	NC
zinc	-2.31E-02	-2.31E-02	-2.31E-02	-2.31E-02	-2.32E-02	-2.32E-02	-2.32E-02	-2.32E-02	-2.32E-02	-2.32E-02	-2.32E-02	-2.32E-02	NA	NA	NC	NC	NC	NC	NC	NC	NC
Diesel PM	2.91E-06	2.21E-06	1.51E-06	8.16E-07	1.19E-07	-5.79E-07	-1.28E-06	-1.97E-06	-2.67E-06	-3.37E-06	-4.07E-06	-4.77E-06	1.05E+00	1.10E+00	5.17E-10	3.63E-10	5.16E-11	2.75E-11	4.00E-12	-1.56E-11	-4.30E-11

[1] Residential Maximum Grid No. 655

NA = Not Available — ug/m³ = micrograms per cubic meter
NC = Not Calculated — mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2016

Table 1-7.1A
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2014 Baseline Operations - Screening Analysis
- Lifetime Exposure, 30-Year Adult Resident Scenario
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	3rd Trimester	Ages 0<2	Ages 2<9	Ages 2<16	Ages 16<30	Ages 16<70
Daily Breathing Rate (DBR)	361 L/kg-d	1090 L/kg-d	631 L/kg-d	745 L/kg-d	335 L/kg-d	290 L/kg-d
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L
Age-adjustment (ASF)	10 unitless	10 unitless	3 unitless	3 unitless	3 unitless	3 unitless
Fraction of Averaging Time (ED)	0.00357 unitless	0.01429 unitless	0.01429 unitless	0.01429 unitless	0.2 unitless	0.771 unitless
Fraction of Time at Home (FAH)	1.00 unitless	1.00 unitless	1.00 unitless	1 unitless	0.73 unitless	0.73 unitless

Equations
Risk = Car*DBR*EF*CF*A*ASF*ED*FAH*CPF
HQ = Car / REL
Where: HQ = Hazard Quotient — Car = Exposure Concentration
DBR = Daily Breathing Rate — ASF = Age sensitivity factor
EF = Fraction of Year — ED = Fraction of Averaging time
A = Absorption Fraction — FAH = Fraction of Time at Home
CF = Conversion Factor — CPF = Cancer Potency Factor

	Start Age	End Age
Child Resident	0	9 Year
School Child	7	18 Year
30-year Resident	0	30 Year
70-year Resident	0	70 Year

TAC	Concentration at Location w/Maximum Risk (ug/m³) Operation by Year 2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	Toxicity Criteria EPA Inhalation CPF (mg/kg-day)$^{-1}$	Cal/EPA Inhalation CPF (mg/kg-day)$^{-1}$	Cancer Risk to Adult 30-Year Resident Operation by Year 2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035 - 2053	TOTAL Cancer Risk to Resident for Max Location
1,2,4-trimethylbenzene	-1.19E-04	-1.19E-04	-1.23E-04	-1.27E-04	-1.30E-04	-1.34E-04	-1.38E-04	-1.42E-04	-1.46E-04	-1.50E-04	-1.54E-04	-1.58E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	-6.17E-05	-6.39E-05	-6.61E-05	-6.83E-05	-7.05E-05	-7.27E-05	-7.49E-05	-7.70E-05	-7.92E-05	-8.14E-05	-8.36E-05	-8.58E-05	1.05E-01	6.00E-01	-5.99E-09	-5.73E-09	-1.21E-09	-1.25E-09	-1.29E-09	-1.33E-09	-1.38E-09	-1.42E-09	-1.46E-09	-1.50E-09	-1.54E-09	-1.03E-08	-3.44E-08
2,2,4-trimethylpentane	-2.49E-04	-2.58E-04	-2.67E-04	-2.77E-04	-2.86E-04	-2.95E-04	-3.05E-04	-3.14E-04	-3.23E-04	-3.32E-04	-3.42E-04	-3.51E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	-2.16E-04	-2.17E-04	-2.18E-04	-2.19E-04	-2.20E-04	-2.20E-04	-2.21E-04	-2.22E-04	-2.23E-04	-2.24E-04	-2.25E-04	-2.25E-04	7.70E-03	1.00E-02	-3.93E-10	-3.24E-10	-6.67E-11	-6.70E-11	-6.72E-11	-6.75E-11	-6.77E-11	-6.80E-11	-6.83E-11	-6.86E-11	-6.88E-11	-1.73E-09
acrolein	-1.36E-05	-1.41E-05	-1.47E-05	-1.52E-05	-1.57E-05	-1.62E-05	-1.68E-05	-1.73E-05	-1.78E-05	-1.83E-05	-1.89E-05	-1.94E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
benzene	-3.09E-04	-3.19E-04	-3.29E-04	-3.39E-04	-3.49E-04	-3.59E-04	-3.69E-04	-3.79E-04	-3.88E-04	-3.98E-04	-4.08E-04	-4.18E-04	2.73E-02	1.00E-01	-1.16E-08	-9.58E-09	-1.97E-09	-1.98E-09	-1.98E-09	-1.99E-09	-1.99E-09	-2.00E-09	-2.00E-09	-2.01E-09	-2.01E-09	-6.66E-08
cumene	-1.75E-06	-1.79E-06	-1.84E-06	-1.89E-06	-1.93E-06	-1.98E-06	-2.03E-06	-2.07E-06	-2.12E-06	-2.17E-06	-2.21E-06	-2.26E-06	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cyclohexane	-6.51E-05	-6.76E-05	-7.01E-05	-7.25E-05	-7.50E-05	-7.75E-05	-8.00E-05	-8.25E-05	-8.49E-05	-8.74E-05	-8.99E-05	-9.24E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	-1.18E-04	-1.22E-04	-1.26E-04	-1.31E-04	-1.35E-04	-1.39E-04	-1.43E-04	-1.48E-04	-1.52E-04	-1.56E-04	-1.60E-04	-1.65E-04	8.75E-03	8.70E-03	-1.66E-10	-1.59E-10	-3.37E-11	-3.40E-11	-3.39E-11	-3.37E-11	-3.82E-11	-3.93E-11	-4.04E-11	-4.16E-11	-4.27E-11	-4.43E-10	-1.11E-09
ethylene	-1.03E-03	-1.06E-03	-1.08E-03	-1.11E-03	-1.13E-03	-1.16E-03	-1.18E-03	-1.21E-03	-1.23E-03	-1.26E-03	-1.28E-03	-1.31E-03	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	-5.39E-04	-5.45E-04	-5.51E-04	-5.56E-04	-5.62E-04	-5.68E-04	-5.74E-04	-5.80E-04	-5.85E-04	-5.91E-04	-5.97E-04	-6.03E-04	4.55E-02	2.10E-02	-1.83E-09	-1.71E-09	-3.54E-10	-3.58E-10	-3.61E-10	-3.64E-10	-3.67E-10	-3.70E-10	-3.73E-10	-3.76E-10	-3.80E-10	-3.84E-10	-3.92E-09	-1.09E-08
hexane, n-isoprene, except from vegetative emission sources	-1.71E-04	-1.78E-04	-1.84E-04	-1.90E-04	-1.97E-04	-2.03E-04	-2.10E-04	-2.16E-04	-2.22E-04	-2.29E-04	-2.35E-04	-2.42E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	-1.31E-05	-1.36E-05	-1.41E-05	-1.46E-05	-1.51E-05	-1.55E-05	-1.60E-05	-1.65E-05	-1.69E-05	-1.74E-05	-1.79E-05	-1.84E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	-4.00E-05	-4.01E-05	-4.01E-05	-4.01E-05	-4.02E-05	-4.02E-05	-4.02E-05	-4.03E-05	-4.03E-05	-4.03E-05	-4.04E-05	-4.04E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
naphthalene	-7.23E-06	-7.42E-06	-7.61E-06	-7.79E-06	-7.98E-06	-8.17E-06	-8.36E-06	-8.54E-06	-8.73E-06	-8.92E-06	-9.10E-06	-9.29E-06	1.19E-01	1.20E-01	-1.40E-10	-1.33E-10	-2.80E-11	-2.86E-11	-2.93E-11	-3.00E-11	-3.07E-11	-3.14E-11	-3.21E-11	-3.28E-11	-3.34E-11	-3.45E-10	-8.95E-10
propionaldehyde	-2.83E-05	-2.84E-05	-2.85E-05	-2.86E-05	-2.87E-05	-2.88E-05	-2.89E-05	-2.91E-05	-2.92E-05	-2.93E-05	-2.94E-05	-2.95E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
propylene	-3.87E-04	-3.99E-04	-4.11E-04	-4.23E-04	-4.35E-04	-4.48E-04	-4.60E-04	-4.72E-04	-4.84E-04	-4.97E-04	-5.09E-04	-5.21E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
styrene	-1.39E-05	-1.44E-05	-1.48E-05	-1.53E-05	-1.58E-05	-1.63E-05	-1.67E-05	-1.72E-05	-1.77E-05	-1.82E-05	-1.86E-05	-1.91E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
toluene	-6.40E-04	-6.63E-04	-6.86E-04	-7.09E-04	-7.32E-04	-7.55E-04	-7.78E-04	-8.02E-04	-8.25E-04	-8.48E-04	-8.71E-04	-8.94E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
xylene (total)	-5.30E-04	-5.50E-04	-5.69E-04	-5.88E-04	-6.08E-04	-6.27E-04	-6.46E-04	-6.66E-04	-6.85E-04	-7.04E-04	-7.24E-04	-7.43E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
aluminum	-1.56E+00	-1.56E+00	-1.56E+00	-1.56E+00	-1.56E+00	-1.56E+00	-1.57E+00	-1.57E+00	-1.57E+00	-1.57E+00	-1.57E+00	-1.57E+00	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ammonium ion	-4.26E-02	-4.25E-02	-4.25E-02	-4.26E-02	-4.26E-02	-4.26E-02	-4.27E-02	-4.27E-02	-4.27E-02	-4.27E-02	-4.28E-02	-4.28E-02	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
antimony	-2.51E-04	-2.51E-04	-2.51E-04	-2.51E-04	-2.51E-04	-2.51E-04	-2.51E-04	-2.52E-04	-2.52E-04	-2.52E-04	-2.52E-04	-2.52E-04	1.51E+01	1.20E+01	-4.86E-07	-4.49E-07	-9.21E-08	-9.22E-08	-9.23E-08	-9.21E-08	-9.24E-08	-9.25E-08	-9.26E-08	-9.27E-08	-9.28E-08	-9.31E-08	-2.71E-06
arsenic	-3.48E-01	-3.48E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.46E-01	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
barium	-3.48E-01	-3.48E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.46E-01	-3.46E-01	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
bromine	-4.49E-04	-4.49E-04	-4.49E-04	-4.49E-04	-4.49E-04	-4.49E-04	-4.49E-04	-4.49E-04	-4.50E-04	-4.50E-04	-4.50E-04	-4.50E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cadmium	-4.38E-05	-4.38E-05	-4.39E-05	-4.39E-05	-4.39E-05	-4.40E-05	-4.40E-05	-4.41E-05	-4.41E-05	-4.42E-05	-4.42E-05	-4.43E-05	6.30E+00	1.50E+01	-1.06E-07	-9.83E-08	-2.33E-08	-2.33E-08	-2.33E-08	-2.33E-08	-2.34E-08	-2.34E-08	-2.34E-08	-2.34E-08	-2.34E-08	-2.36E-08	-6.91E-07
chlorine	-2.86E-02	-2.86E-02	-2.86E-02	-2.86E-02	-2.86E-02	-2.86E-02	-2.87E-02	-2.87E-02	-2.87E-02	-2.87E-02	-2.87E-02	-2.87E-02	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
chromium (VI)	-7.39E-03	-7.38E-03	-7.38E-03	-7.38E-03	-7.37E-03	-7.37E-03	-7.37E-03	-7.36E-03	-7.36E-03	-7.36E-03	-7.35E-03	-7.35E-03	4.20E+01	5.10E+02	-6.69E-04	-6.62E-04	-1.15E-04	-1.15E-04	-1.15E-04	-1.15E-04	-1.15E-04	-1.15E-04	-1.15E-04	-1.15E-04	-1.15E-04	-1.16E-04	-3.37E-03
cobalt	-3.45E-04	-3.45E-04	-3.45E-04	-3.46E-04	-3.46E-04	-3.46E-04	-3.47E-04	-3.47E-04	-3.47E-04	-3.47E-04	-3.48E-04	-3.48E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
copper	-7.29E-02	-7.29E-02	-7.28E-02	-7.28E-02	-7.28E-02	-7.28E-02	-7.27E-02	-7.27E-02	-7.27E-02	-7.26E-02	-7.26E-02	-7.26E-02	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
lead	-2.32E-03	-2.33E-03	-2.33E-03	-2.33E-03	-2.33E-03	-2.33E-03	-2.33E-03	-2.33E-03	-2.34E-03	-2.34E-03	-2.34E-03	-2.34E-03	4.20E-02													
manganese	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
mercury	-1.31E-04	-1.31E-04	-1.31E-04	-1.32E-04	-1.32E-04	-1.32E-04	-1.32E-04	-1.32E-04	-1.32E-04	-1.32E-04	-1.32E-04	-1.32E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
nickel	-4.28E-03	-4.28E-03	-4.27E-03	-4.27E-03	-4.27E-03	-4.27E-03	-4.27E-03	-4.27E-03	-4.26E-03	-4.26E-03	-4.26E-03	-4.26E-03	8.40E-01	9.10E-01	-6.30E-07	-5.81E-07	-1.19E-07	-1.19E-07	-1.19E-

Table 1-7.3
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2024 Without Project vs. 2014 Baseline Operations - Screening Analysis
- Lifetime Exposure, Worker Scenario
(Based on Peak Location of Commercial Cancer Risks[1])

Exposure Parameters	Ages 16<30	Ages 16<70
Worker 8-hr Daily Breathing Rate (DBR)	240 L/kg-d	230 L/kg-d
Fraction of Year (EF)	0.68 unitless	0.68 unitless
Absorption Fraction (A)	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L
Age-adjustment (ASF)	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.01429 unitless	0.1429 unitless
Worker Adjustment Factor (WAH)	1 unitless	1 unitless

Equations
Risk = Cair*DBR*EF*CF*A*ASF*ED*FAH*CPF
HQ = Cair / REL
Where: HQ = Hazard Quotient; Cair = Exposure Concentration; DBR = Daily Breathing Rate; ASF = Age sensitivity factor; EF = Fraction of Year; ED = Fraction of Averaging time; A = Absorption Fraction; FAH = Fraction of Time at Home; CF = Conversion Factor; CPF = Cancer Potency Factor

TAC	Concentration at Location w/Maximum Risk (ug/m^3) Operation by Year 2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	Toxicity Criteria EPA Inhalation CPF (mg/kg-day)$^{-1}$	CalEPA Inhalation CPF (mg/kg-day)$^{-1}$	Cancer Risk to Worker Operation by Year 2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Ops 2035-2041	TOTAL Cancer Risk to Worker for Max Location
1,2,4-trimethylbenzene	-1.15E-04	-1.15E-04	-1.22E-04	-1.27E-04	-1.30E-04	-1.34E-04	-1.38E-04	-1.42E-04	-1.46E-04	-1.50E-04	-1.54E-04	-1.58E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	-6.17E-05	-6.39E-05	-6.61E-05	-6.81E-05	-7.05E-05	-7.27E-05	-7.49E-05	-7.70E-05	-7.92E-05	-8.14E-05	-8.36E-05	-8.58E-05	6.00E-01	6.00E-01	-8.70E-11	-9.01E-11	-9.32E-11	-9.62E-11	-9.93E-11	-1.02E-10	-1.05E-10	-1.08E-10	-1.12E-10	-1.15E-10	-1.18E-10	-1.64E-09	-2.76E-09
2,2,4-trimethylpentane	-2.49E-04	-2.58E-04	-2.67E-04	-2.75E-04	-2.84E-04	-2.93E-04	-3.02E-04	-3.11E-04	-3.20E-04	-3.29E-04	-3.38E-04	-3.47E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	-2.16E-04	-2.17E-04	-2.18E-04	-2.19E-04	-2.20E-04	-2.20E-04	-2.21E-04	-2.22E-04	-2.23E-04	-2.24E-04	-2.25E-04	-2.25E-04	9.00E-03	1.40E+02	-1.54E-06	-1.55E-06	-1.56E-06	-1.57E-06	-1.57E-06	-1.58E-06	-1.59E-06	-1.59E-06	-1.60E-06	-1.60E-06	-1.61E-06
acrolein	-1.38E-05	-1.41E-05	-1.47E-05	-1.52E-05	-1.57E-05	-1.62E-05	-1.68E-05	-1.73E-05	-1.78E-05	-1.83E-05	-1.88E-05	-1.94E-05	2.00E-02	3.50E-01	-3.89E-09	-4.04E-09	-4.19E-09	-4.34E-09	-4.49E-09	-4.64E-09	-4.79E-09	-4.94E-09	-5.09E-09	-5.24E-09	-5.39E-09	-5.54E-09
benzene	-3.09E-04	-3.19E-04	-3.29E-04	-3.39E-04	-3.49E-04	-3.59E-04	-3.69E-04	-3.79E-04	-3.88E-04	-3.98E-04	-4.08E-04	-4.18E-04	2.73E-02	1.00E-01	-7.27E-11	-7.53E-11	-7.79E-11	-7.99E-11	-8.19E-11	-8.43E-11	-8.66E-11	-8.89E-11	-9.12E-11	-9.35E-11	-9.59E-11	-1.33E-09	-2.28E-09
cumene	-1.75E-06	-1.79E-06	-1.84E-06	-1.86E-06	-1.93E-06	-1.98E-06	-2.03E-06	-2.07E-06	-2.12E-06	-2.17E-06	-2.21E-06	-2.26E-06	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cyclohexane	-6.51E-05	-6.76E-05	-7.01E-05	-7.25E-05	-7.50E-05	-7.77E-05	-8.01E-05	-8.25E-05	-8.49E-05	-8.74E-05	-8.99E-05	-9.24E-05	6.00E+03	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	-1.18E-04	-1.22E-04	-1.26E-04	-1.31E-04	-1.35E-04	-1.39E-04	-1.43E-04	-1.48E-04	-1.52E-04	-1.56E-04	-1.60E-04	-1.65E-04	1.00E+03	2.00E+03	-5.90E-08	-6.11E-08	-6.32E-08	-6.53E-08	-6.75E-08	-6.96E-08	-7.17E-08	-7.38E-08	-7.59E-08	-7.80E-08	-8.01E-08	-8.23E-08	
ethylene	-1.10E-03	-1.02E-03	-1.08E-03	-1.11E-03	-1.13E-03	-1.16E-03	-1.18E-03	-1.21E-03	-1.23E-03	-1.26E-03	-1.28E-03	-1.31E-03	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	-5.39E-04	-5.45E-04	-5.51E-04	-5.56E-04	-5.62E-04	-5.68E-04	-5.74E-04	-5.80E-04	-5.85E-04	-5.91E-04	-5.97E-04	-6.03E-04	4.55E-02	2.10E-02	-2.66E-11	-2.69E-11	-2.72E-11	-2.74E-11	-2.77E-11	-2.80E-11	-2.83E-11	-2.86E-11	-2.89E-11	-2.92E-11	-2.94E-11	-4.03E-10	-7.11E-10
hexane, n-	-1.77E-04	-1.78E-04	-1.84E-04	-1.90E-04	-1.97E-04	-2.03E-04	-2.09E-04	-2.15E-04	-2.21E-04	-2.27E-04	-2.33E-04	-2.39E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
isoprene, except from vegetative emission sources	-1.49E-05	-1.54E-05	-1.60E-05	-1.66E-05	-1.71E-05	-1.77E-05	-1.83E-05	-1.89E-05	-1.94E-05	-2.00E-05	-2.06E-05	-2.11E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	-1.31E-05	-1.36E-05	-1.41E-05	-1.46E-05	-1.50E-05	-1.55E-05	-1.60E-05	-1.65E-05	-1.69E-05	-1.74E-05	-1.79E-05	-1.84E-05	2.00E+04	4.00E+03	-3.28E-09	-3.40E-09	-3.52E-09	-3.64E-09	-3.76E-09	-3.88E-09	-4.00E-09	-4.12E-09	-4.23E-09	-4.35E-09	-4.47E-09	-4.59E-09	
methyl ethyl ketone	-4.00E-05	-4.07E-05	-4.01E-05	-4.01E-05	-4.02E-05	-4.02E-05	-4.03E-05	-4.03E-05	-4.03E-05	-4.04E-05	-4.04E-05	-4.04E-05	NA	NA	-8.07E-12	-8.37E-12	-8.67E-12	-8.96E-12	-9.26E-12	-9.56E-12	-9.86E-12	-1.02E-11	-1.05E-11	-1.08E-11	-1.11E-11	-1.51E-10	-2.56E-10
naphthalene	-7.23E-06	-7.42E-06	-7.61E-06	-7.79E-06	-7.98E-06	-8.17E-06	-8.36E-06	-8.54E-06	-8.73E-06	-8.92E-06	-9.10E-06	-9.29E-06	3.00E+00	9.00E+00	-8.04E-07	-8.25E-07	-8.46E-07	-8.66E-07	-8.87E-07	-9.08E-07	-9.28E-07	-9.49E-07	-9.70E-07	-9.91E-07	-1.01E-06	-1.03E-06	
propionaldehyde	-2.83E-05	-2.84E-05	-2.85E-05	-2.86E-05	-2.87E-05	-2.88E-05	-2.89E-05	-2.91E-05	-2.92E-05	-2.93E-05	-2.94E-05	-2.95E-05	8.00E+00	NA	-3.54E-06	-3.63E-06	-3.72E-06	-3.81E-06	-3.90E-06	-3.99E-06	-4.08E-06	-4.17E-06	-4.26E-06	-4.35E-06	-4.44E-06	-4.53E-06	-7.96E-06
propylene	-3.87E-04	-3.99E-04	-4.11E-04	-4.23E-04	-4.35E-04	-4.48E-04	-4.60E-04	-4.72E-04	-4.84E-04	-4.97E-04	-5.09E-04	-5.21E-04	3.00E+03	3.00E+03	-1.29E-07	-1.33E-07	-1.37E-07	-1.41E-07	-1.45E-07	-1.49E-07	-1.53E-07	-1.57E-07	-1.61E-07	-1.66E-07	-1.70E-07	-1.74E-07	
styrene	-1.13E-05	-1.14E-05	-1.14E-05	-1.63E-05	-1.65E-05	-1.67E-05	-1.72E-05	-1.77E-05	-1.82E-05	-1.86E-05	-1.91E-05	-1.96E-05	9.00E+02	1.50E+03	-1.54E-08	-1.60E-08	-1.66E-08	-1.70E-08	-1.76E-08	-1.81E-08	-1.86E-08	-1.91E-08	-1.97E-08	-2.02E-08	-2.07E-08	-2.12E-08	
toluene	-6.40E-04	-6.63E-04	-6.86E-04	-7.09E-04	-7.32E-04	-7.56E-04	-7.79E-04	-8.02E-04	-8.25E-04	-8.48E-04	-8.71E-04	-8.95E-04	5.00E+03	3.00E+02	-2.13E-06	-2.21E-06	-2.29E-06	-2.36E-06	-2.44E-06	-2.52E-06	-2.60E-06	-2.68E-06	-2.76E-06	-2.84E-06	-2.92E-06	-2.99E-06	
xylene (total)	-5.30E-04	-5.50E-04	-5.69E-04	-5.88E-04	-6.08E-04	-6.27E-04	-6.46E-04	-6.66E-04	-6.85E-04	-7.04E-04	-7.24E-04	-7.43E-04	1.00E+02	7.00E+02	-7.58E-07	-7.85E-07	-8.13E-07	-8.41E-07	-8.68E-07	-8.96E-07	-9.23E-07	-9.51E-07	-9.79E-07	-1.01E-06	-1.03E-06	-1.06E-06	
aluminum	-1.90E-01	-1.90E-01	-1.90E-01	-1.90E-01	-1.90E-01	-1.90E-01	-1.90E-01	-1.90E-01	-1.90E-01	-1.90E-01	-1.90E-01	-1.90E-01	NA	NA	-3.13E-04	-3.25E-04	-3.37E-04	-3.48E-04	-3.60E-04	-3.72E-04	-3.84E-04	-3.96E-04	-4.08E-04	-4.20E-04	-4.32E-04	-5.96E-04	
ammonium ion	-4.25E-02	-4.26E-02	-4.26E-02	-4.26E-02	-4.26E-02	-4.27E-02	-4.27E-02	-4.27E-02	-4.28E-02	-4.28E-02	-4.28E-02	-4.29E-02	2.00E+02	1.00E+02	-2.13E-04	-2.13E-04	-2.13E-04	-2.13E-04	-2.13E-04	-2.14E-04	-2.14E-04	-2.14E-04	-2.14E-04	-2.14E-04	-2.14E-04	-2.14E-04	
antimony	-9.91E-04	-9.92E-04	-9.93E-04	-9.94E-04	-9.95E-04	-9.96E-04	-9.97E-04	-9.98E-04	-9.99E-04	-9.99E-04	-1.00E-03	-1.00E-03	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
arsenic	-2.51E-04	-2.51E-04	-2.51E-04	-2.51E-04	-2.51E-04	-2.51E-04	-2.51E-04	-2.51E-04	-2.52E-04	-2.52E-04	-2.52E-04	-2.52E-04	1.50E+02	1.50E+02	-1.67E-02	-1.67E-02	-1.67E-02	-1.67E-02	-1.67E-02	-1.67E-02	-1.68E-02	-1.68E-02	-1.68E-02	-1.68E-02	-1.68E-02	-1.68E-02	
barium	-3.48E-01	-3.48E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.46E-01	-3.46E-01	5.00E+01	NA	-6.96E-05	-6.99E-05	-6.96E-05	-6.96E-05	-6.96E-05	-6.96E-05	-6.94E-05	-6.94E-05	-6.94E-05	-6.94E-05	-6.93E-05	-6.92E-05	
beryllium	-3.48E-01	-3.48E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.47E-01	-3.46E-01	-3.46E-01	5.00E+01	NA	-6.96E-05	-6.99E-05	-6.96E-05	-6.96E-05	-6.96E-05	-6.96E-05	-6.94E-05	-6.94E-05	-6.94E-05	-6.94E-05	-6.93E-05	-6.92E-05	
boron	-4.49E-04	-4.49E-04	-4.49E-04	-4.49E-04	-4.49E-04	-4.49E-04	-4.49E-04	-4.49E-04	-4.49E-04	-4.50E-04	-4.50E-04	-4.50E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
cadmium	-4.38E-05	-4.36E-05	-4.39E-05	-4.39E-05	-4.39E-05	-4.40E-05	-4.40E-05	-4.41E-05	-4.41E-05	-4.42E-05	-4.42E-05	-4.43E-05	1.00E+02	2.00E+02	-2.19E-03	-2.19E-03	-2.19E-03	-2.20E-03	-2.20E-03	-2.20E-03	-2.20E-03	-2.20E-03	-2.21E-03	-2.21E-03	-2.21E-03	-2.21E-03	
chlorine	-2.86E-02	-2.86E-02	-2.86E-02	-2.86E-02	-2.86E-02	-2.87E-02	-2.87E-02	-2.87E-02	-2.87E-02	-2.87E-02	-2.87E-02	-2.87E-02	1.50E+01	2.00E+02	-1.43E-06	-1.44E-06	-1.44E-06	-1.45E-06	-1.45E-06	-1.46E-06	-1.46E-06	-1.47E-06	-1.47E-06	-1.48E-06	-1.48E-06	-1.49E-06	
chromium (VI)	-7.39E-03	-7.39E-03	-7.38E-03	-7.38E-03	-7.37E-03	-7.37E-03	-7.37E-03	-7.36E-03	-7.36E-03	-7.35E-03	-7.35E-03	-7.35E-03	1.00E+01	2.00E-01	-3.69E-02	-3.69E-02	-3.69E-02	-3.69E-02	-3.68E-02	-3.68E-02	-3.68E-02	-3.68E-02	-3.68E-02	-3.68E-02	-3.68E-02	-3.68E-02	
cobalt	-3.48E-04	-3.46E-04	-3.46E-04	-3.46E-04	-3.47E-04	-3.47E-04	-3.47E-04	-3.48E-04	-3.48E-04	-3.48E-04	-3.48E-04	-3.48E-04	6.00E+03	NA	-5.79E-02	-5.76E-02	-5.77E-02	-5.77E-02	-5.77E-02	-5.77E-02	-5.77E-02	-5.78E-02	-5.78E-02	-5.78E-02	-5.78E-02	-5.80E-02	-5.80E-02
copper	-7.29E-02	-7.29E-02	-7.28E-02	-7.28E-02	-7.28E-02	-7.28E-02	-7.27E-02	-7.27E-02	-7.27E-02	-7.26E-02	-7.26E-02	-7.26E-02	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
lead	-2.32E-03	-2.32E-03	-2.33E-03	-2.33E-03	-2.33E-03	-2.33E-03	-2.33E-03	-2.33E-03	-2.34E-03	-2.34E-03	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
manganese	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	-2.22E-02	9.00E+02	5.00E+02	9.00E-02	-2.46E-01	-2.46E-01	-2.47E-01	-2.47E-01	-2.47E-01	-2.47E-01	-2.47E-01	-2.47E-01	-2.47E-01	-2.47E-01	-2.47E-01	
mercury	-1.31E-04	-1.31E-04	-1.31E-04	-1.32E-04	-1.32E-04	-1.32E-04	-1.32E-04	-1.32E-04	-1.32E-04	-1.32E-04	-1.32E-04	-1.32E-04	3.00E+02	3.00E+02	-4.37E-04	-4.39E-04	-4.39E-04	-4.39E-04	-4.39E-04	-4.40E-04	-4.40E-04	-4.40E-04	-4.40E-04	-4.40E-04	-4.40E-04	-4.41E-04	
nickel	-4.28E-03	-4.28E-03	-4.28E-03	-4.27E-03	-4.27E-03	-4.27E-03	-4.27E-03	-4.27E-03	-4.26E-03	-4.26E-03	-4.26E-03	-4.26E-03	9.00E+02	1.40E+02	-3.06E-01	-3.06E-01	-3.06E-01	-3.06E-01	-3.06E-01	-3.06E-01	-3.06E-01	-3.06E-01	-3.06E-01	-3.06E-01	-3.06E-01	-3.06E-01	
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
phosphorous	-4.13E-02	-4.14E-02	-4.14E-02	-4.15E-02	-4.15E-02	-4.16E-02	-4.16E-02	-4.16E-02	-4.16E-02	-4.16E-02	-4.17E-02	-4.17E-02	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
selenium	-1.78E-04	-1.76E-04	-1.78E-04	-1.78E-04	-1.76E-04	-1.77E-04	-1.77E-04	-1.77E-04	-1.77E-04	-1.77E-04	-1.77E-04	-1.77E-04	2.00E+01	2.00E+01	-8.89E-06	-8.89E-06	-8.89E-06	-8.89E-06	-8.89E-06	-8.89E-06	-8.87E-06	-8.87E-06	-8.87E-06	-8.87E-06	-8.87E-06	-8.86E-06	
silicon	-4.84E-01	-4.85E-01	-4.86E-01	-4.86E-01	-4.86E-01	-4.86E-01	-4.87E-01	-4.87E-01	-4.87E-01	-4.88E-01	-4.88E-01	-4.89E-01	3.00E+01	3.00E+01	-1.61E-01	-1.62E-01	-1.62E-01	-1.62E-01	-1.62E-01	-1.62E-01	-1.62E-01	-1.62E-01	-1.62E-01	-1.62E-01	-1.63E-01	-1.63E-01	
silver	-5.60E-03	-5.84E-03	-5.84E-03	-5.80E-03	-5.12E-03	-5.17E-03	-5.21E-03	-5.25E-03	-5.29E-03	-5.33E-03	-5.37E-03	-5.41E-03	5.46E-03	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
sulfates	-2.59E-01	-2.59E-01	-2.59E-01	-2.59E-01	-2.59E-01	-2.59E-01	-2.59E-01	-2.59E-01	-2.59E-01	-2.59E-01	-2.59E-01	-2.59E-01	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
thallium	-5.83E-05	-5.84E-05	-5.84E-05	-5.84E-05	-5.85E-05	-5.85E-05	-5.86E-05	-5.86E-05	-5.87E-05	-5.87E-05	-5.88E-05	-5.88E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
vanadium	-5.09E-03	-5.09E-03	-5.09E-03	-5.09E-03	-5.09E-03	-5.09E-03	-5.09E-03	-5.09E-03	-5.09E-03	-5.09E-03	-5.09E-03	-5.09E-03	1.00E+01	NA	-5.09E-02	-5.09E-02	-5.09E-02	-5.09E-02	-5.09E-02	-5.09E-02	-5.09E-02	-5.09E-02	-5.09E-02	-5.09E-02	-5.09E-02	-5.09E-02	
zinc	-2.31E-02	-2.31E-02	-2.31E-02	-2.31E-02	-2.32E-02	-2.32E-02	-2.32E-02	-2.32E-02	-2.32E-02	-2.32E-02	-2.32E-02	-2.32E-02	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
Diesel PM	2.91E-06	2.21E-06	1.51E-06	8.16E-07	1.19E-07	-5.79E-07	-1.28E-06	-1.97E-06	-2.67E-06	-3.37E-06	-4.07E-06	-4.77E-06	5.00E+00	5.00E+00	5.82E-07	4.42E-07	3.03E-07	1.63E-07	2.37E-08	-1.19E-07	-2.55E-07	-3.95E-07	-5.34E-07	-6.74E-07	-8.14E-07	-9.53E-07	
															TOTAL	-3.48	-3.49	-3.49	-3.49	-3.49	-3.49	-3.49	-3.49	-3.49	-3.50	-3.50	-3.50

[1] Commercial Maximum Grid No. 655

NA = Not Available; ug/m^3 = micrograms per cubic meter
NC = Not Calculated; mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2016

Table 1-7.1D
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2024 Without Project vs. 2014 Baseline
- Lifetime Exposure, School Child Scenario, 9-year and 12-year - Screening Analysis
(Based on Peak Location of Residential Cancer Risks[1])

Equations
Risk = Cair*DBR*EF*CF*A*ASF*ED*FAH*CPF
HQ = Cair / REL
Where: HQ = Hazard Quotient; Cair = Exposure Concentration; DBR = Daily Breathing Rate; ASF = Age sensitivity factor; EF = Fraction of Year; ED = Fraction of Averaging time; A = Absorption Fraction; FAH = Fraction of Time at Home; CF = Conversion Factor; CPF = Cancer Potency Factor

TAC	Cancer Risk to School Child Operation by Year 2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2024-2032 TOTAL Cancer Risk 9-yr School Child for Max Location	2024-2035 TOTAL Cancer Risk 12-yr School Child for Max Location
	Ages 2<9	Ages 2<9	Ages 2<16	Ages 2<16	Ages 2<16	Ages 2<16	Ages 2<16	Ages 2<16	Ages 2<16	Ages 2<16	Ages 16<30	Ages 16<30	Ages 16<30	Ages 16<30	
1,2,4-trimethylbenzene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	-9.74E-10	-1.01E-09	-8.48E-10	-8.76E-10	-9.04E-10	-9.32E-10	-9.60E-10	-9.88E-10	-1.02E-09	-1.61E-10	-1.65E-10	-1.69E-10	-8.51E-09	-9.00E-09
2,2,4-trimethylpentane	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	-5.69E-11	-5.71E-11	-4.66E-11	-4.67E-11	-4.69E-11	-4.71E-11	-4.73E-11	-4.75E-11	-4.76E-11	-7.36E-12	-7.39E-12	-7.41E-12	-4.44E-10	-4.66E-10
acrolein	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
benzene	-8.14E-10	-8.40E-10	-7.03E-10	-7.25E-10	-7.48E-10	-7.67E-10	-7.88E-10	-8.09E-10	-8.30E-10	-1.31E-10	-1.34E-10	-1.37E-10	-7.02E-09	-7.42E-09
cumene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cyclohexane	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	-2.70E-11	-2.80E-11	-2.33E-11	-2.41E-11	-2.51E-11	-2.59E-11	-2.67E-11	-2.74E-11	-2.82E-11	-4.44E-12	-4.58E-12	-4.71E-12	-2.36E-10	-2.50E-10
ethylene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	-2.98E-10	-3.01E-10	-2.47E-10	-2.50E-10	-2.52E-10	-2.55E-10	-2.58E-10	-2.60E-10	-2.63E-10	-4.08E-11	-4.12E-11	-4.16E-11	-2.38E-09	-2.51E-09
hexane, n-	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
isoprene, except from vegetative emission sources	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
naphthalene	-2.28E-11	-2.34E-11	-1.95E-11	-2.00E-11	-2.05E-11	-2.09E-11	-2.14E-11	-2.19E-11	-2.24E-11	-3.52E-12	-3.59E-12	-3.67E-12	-1.93E-10	-2.04E-10
propionaldehyde	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
propylene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
styrene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
toluene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
xylene (total)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
aluminum	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ammonium ion	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
antimony	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
arsenic	-7.91E-08	-7.91E-08	-6.43E-08	-6.43E-08	-6.44E-08	-6.44E-08	-6.44E-08	-6.45E-08	-6.45E-08	-9.93E-09	-9.93E-09	-9.94E-09	-6.09E-07	-6.39E-07
barium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
beryllium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
boron	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cadmium	-1.73E-08	-1.73E-08	-1.41E-08	-1.41E-08	-1.41E-08	-1.41E-08	-1.41E-08	-1.41E-08	-1.41E-08	-2.18E-09	-2.18E-09	-2.18E-09	-1.33E-07	-1.40E-07
chlorine	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
chromium (VI)	-9.91E-05	-9.90E-05	-8.04E-05	-8.04E-05	-8.04E-05	-8.03E-05	-8.03E-05	-8.02E-05	-8.02E-05	-1.23E-05	-1.23E-05	-1.23E-05	-7.60E-04	-7.97E-04
cobalt	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
copper	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
lead	-2.57E-09	-2.57E-09	-2.09E-09	-2.09E-09	-2.09E-09	-2.09E-09	-2.09E-09	-2.09E-09	-2.10E-09	-3.23E-10	-3.23E-10	-3.23E-10	-1.98E-08	-2.07E-08
manganese	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
mercury	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
nickel	-1.02E-07	-1.02E-07	-8.31E-08	-8.31E-08	-8.31E-08	-8.31E-08	-8.30E-08	-8.30E-08	-8.30E-08	-1.28E-08	-1.28E-08	-1.27E-08	-7.86E-07	-8.24E-07
non-phosphate phosphorous	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
phosphorous	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
selenium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silicon	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silver	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
sulfates	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
thallium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
vanadium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
zinc	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Diesel PM	8.42E-11	6.40E-11	3.56E-11	1.92E-11	2.79E-12	-1.36E-11	-3.00E-11	-4.64E-11	-6.28E-11	-1.22E-11	-1.47E-11	-1.72E-11	5.29E-11	8.77E-12
TOTAL	-9.93E-05	-9.92E-05	-8.06E-05	-8.06E-05	-8.05E-05	-8.05E-05	-8.04E-05	-8.04E-05	-8.04E-05	-1.24E-05	-1.24E-05	-1.24E-05	-7.62E-04	-7.99E-04

NA = Not Available; ug/m^3 = micrograms per cubic meter
NC = Not Calculated; mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2016

Table 1-7.4
2015 OEHHA Hazard Calculation for LAX Landside Access Modernization Program, 2024 Without Project vs. 2014 Baseline Operations - Screening Analysis
Worker Scenario
(Based on Peak Location of Commercial Cancer Risks[1])

Exposure Parameters	Ages 16<30	Ages 16<70
Worker 8-hr Daily Breathing Rate (DBR)	240 L/kg-d	230 L/kg-d
Fraction of Year (EF)	0.68 unitless	0.68 unitless
Absorption Fraction (A)	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L
Age-adjustment (ASF)	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.01 unitless	0.157 unitless
Worker Adjustment Factor (WAH)	1 unitless	1 unitless

Equations
Risk = Cair*DBR*EF*CF*A*ASF*ED*FAH*CPF
HQ = Cair / REL
Where: HQ = Hazard Quotient; Cair = Exposure Concentration; DBR = Daily Breathing Rate; ASF = Age sensitivity factor; EF = Fraction of Year; ED = Fraction of Averaging time; A = Absorption Fraction; FAH = Fraction of Time at Home; CF = Conversion Factor; CPF = Cancer Potency Factor

| TAC | Concentration at Location w/Maximum Risk (ug/m^3) Operations 2024 | 2025 | 2026 | 2027 | 2028 | 2029

Table 1-8.1C
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2014 Baseline Operations - Screening Analysis
- Lifetime Exposure, Child Resident Scenario (Maximum 2020-2028)
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	3rd Trimester	Ages 0<2	Ages 2<9	Start Age	End Age	Equations
Daily Breathing Rate (DBR)	361 L/kg-d	1090 L/kg-d	861 L/kg-d	0	9 Year	Risk = CalculSBR*EF*CPF*ASF*ED*FAH*CPF
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless	School Child	7	18 Year	HQ= Cair / REL
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless	30-year Resident	0	30 Year	Where: HQ = Hazard Quotient	Cair = Exposure Concentration
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	70-year Resident	0	70 Year	DBR = Daily Breathing Rate	ASF = Age sensitivity factor
Age-adjustment (ASF)	10 unitless	10 unitless	3 unitless				EF = Fraction of Year	ED = Fraction of Averaging time
Fraction of Averaging Time (ED)	0.00357 unitless	0.01429 unitless	0.01429 unitless				A = Absorption Fraction	FAH = Fraction of Time at Home
Fraction of Time at Home (FAH)	1.00 unitless	1.00 unitless	1.00 unitless				CF = Conversion Factor	CPF = Cancer Potency Factor

	Start Age	End Age
Child Resident	0	9 Year
School Child	7	18 Year
30-year Resident	0	30 Year
70-year Resident	0	70 Year

	Concentration at Location w/Maximum Risk (ug/m^3)									Toxicity Criteria		Risk to Adult 30-Year Resident										TOTAL
	Operation by Year									EPA Inhalation CPF ($mg/kg-day)^{-1}$	CalEPA Inhalation CPF ($mg/kg-day)^{-1}$	Operation by Year										Cancer Risk to Resident for 30-yr Operation
TAC	2024	2025	2026	2027	2028	2029	2030	2031	2032			2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1,2,4-trimethylbenzene	-1.13E-04	-1.16E-04	-1.18E-04	-1.21E-04	-1.24E-04	-1.27E-04	-1.30E-04	-1.32E-04	-1.35E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	-6.08E-05	-6.23E-05	-6.39E-05	-6.55E-05	-6.70E-05	-6.86E-05	-7.02E-05	-7.18E-05	-7.33E-05	1.05E-01	6.00E-01	-5.89E-09	-5.58E-09	-5.29E-09	-5.01E-09	-4.75E-09	-4.50E-09	-4.27E-09	-4.05E-09	-3.84E-09	-3.64E-09	-3.45E-09
2,2,4-trimethylpentane	-2.44E-04	-2.52E-04	-2.59E-04	-2.66E-04	-2.73E-04	-2.80E-04	-2.87E-04	-2.93E-04	-2.99E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	-2.05E-04	-2.05E-04	-2.05E-04	-2.05E-04	-2.06E-04	-2.06E-04	-2.06E-04	-2.07E-04	-2.07E-04	2.70E-03	1.00E-02	-3.31E-10	-3.06E-10	-2.86E-10	-2.68E-10	-2.52E-10	-2.37E-10	-2.24E-10	-2.12E-10	-2.01E-10	-1.90E-10	-1.81E-10
acrolein	-1.34E-05	-1.38E-05	-1.42E-05	-1.46E-05	-1.50E-05	-1.53E-05	-1.57E-05	-1.61E-05	-1.65E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
benzene	-3.03E-04	-3.10E-04	-3.17E-04	-3.24E-04	-3.31E-04	-3.38E-04	-3.46E-04	-3.53E-04	-3.60E-04	2.73E-02	1.00E-01	-4.90E-09	-4.63E-09	-4.39E-09	-4.17E-09	-3.96E-09	-3.77E-09	-3.59E-09	-3.42E-09	-3.26E-09	-3.11E-09	-2.97E-09
cumene	-1.70E-06	-1.73E-06	-1.77E-06	-1.80E-06	-1.83E-06	-1.86E-06	-1.90E-06	-1.93E-06	-1.96E-06	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cyclohexane	-6.43E-05	-6.61E-05	-6.79E-05	-6.96E-05	-7.14E-05	-7.32E-05	-7.50E-05	-7.68E-05	-7.86E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	-1.16E-04	-1.19E-04	-1.22E-04	-1.25E-04	-1.28E-04	-1.31E-04	-1.34E-04	-1.37E-04	-1.41E-04	-1.44E-04	-1.47E-04	-1.50E-04	-1.53E-04	-1.56E-04	-1.59E-04	-1.62E-04	-1.65E-04	-1.68E-04	-1.71E-04	-1.74E-04	-1.77E-04	-1.80E-04
ethylene	-1.00E-03	-1.02E-03	-1.04E-03	-1.05E-03	-1.07E-03	-1.09E-03	-1.11E-03	-1.12E-03	-1.14E-03	-1.16E-03	-1.18E-03	-1.19E-03	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	-5.15E-04	-5.18E-04	-5.22E-04	-5.25E-04	-5.29E-04	-5.32E-04	-5.36E-04	-5.39E-04	-5.43E-04	-5.46E-04	-5.50E-04	-5.53E-04	4.55E-02	2.10E-02	-1.78E-09	-1.62E-09	-1.48E-09	-1.36E-09	-1.25E-09	-1.15E-09	-1.06E-09	-9.77E-10
hexane, n- isoprene, except from vegetative emission sources	-1.69E-04	-1.73E-04	-1.78E-04	-1.83E-04	-1.87E-04	-1.92E-04	-1.97E-04	-2.01E-04	-2.06E-04	-2.11E-04	-2.15E-04	-2.20E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	-1.47E-05	-1.51E-05	-1.55E-05	-1.59E-05	-1.63E-05	-1.67E-05	-1.71E-05	-1.76E-05	-1.80E-05	-1.84E-05	-1.88E-05	-1.92E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	-3.77E-05	-3.77E-05	-3.77E-05	-3.76E-05	-3.76E-05	-3.75E-05	-3.75E-05	-3.74E-05	-3.74E-05	-3.73E-05	-3.73E-05	-3.73E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC
naphthalene	-7.04E-06	-7.17E-06	-7.30E-06	-7.43E-06	-7.56E-06	-7.69E-06	-7.82E-06	-7.95E-06	-8.09E-06	-8.22E-06	-8.35E-06	-8.48E-06	1.19E-01	1.20E-01	-1.37E-10	-1.26E-10	-2.68E-11	-2.75E-11	-2.78E-11	-2.82E-11	-2.87E-11	-2.92E-11
propionaldehyde	-2.68E-05	-2.69E-05	-2.69E-05	-2.69E-05	-2.70E-05	-2.70E-05	-2.70E-05	-2.71E-05	NA	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
propylene	-3.79E-04	-3.87E-04	-3.96E-04	-4.05E-04	-4.14E-04	-4.22E-04	-4.31E-04	-4.40E-04	-4.48E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
styrene	-1.37E-05	-1.40E-05	-1.43E-05	-1.47E-05	-1.50E-05	-1.54E-05	-1.57E-05	-1.60E-05	-1.64E-05	-1.67E-05	-1.71E-05	-1.74E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC
toluene	-6.30E-04	-6.47E-04	-6.64E-04	-6.80E-04	-6.97E-04	-7.14E-04	-7.30E-04	-7.47E-04	-7.64E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
xylene (total)	-5.23E-04	-5.38E-04	-5.50E-04	-5.64E-04	-5.78E-04	-5.92E-04	-6.06E-04	-6.20E-04	-6.34E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
aluminum	-3.01E-05	-3.13E-01	-2.67E-01	-4.00E-01	-5.34E-01	-6.67E-01	-8.00E-01	-9.34E-01	-1.07E+00	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ammonium ion	-6.51E-06	-3.66E-03	-7.28E-03	-1.09E-02	-1.46E-02	-1.82E-02	-2.19E-02	-2.55E-02	-2.91E-02	-3.28E-02	-3.64E-02	-4.00E-02	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC
antimony	-7.99E-08	-8.49E-05	-1.70E-04	-2.55E-04	-3.40E-04	-4.24E-04	-5.09E-04	-5.94E-04	-6.79E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
arsenic	-1.13E-08	-2.13E-05	-4.26E-05	-6.40E-05	-8.53E-05	-1.07E-04	-1.28E-04	-1.50E-04	-1.72E-04	1.91E+01	1.20E+01	-1.82E-08	-1.72E-08	-1.63E-08	-1.54E-08	-1.46E-08	-1.38E-08	-1.31E-08	-1.24E-08	-1.17E-08	-1.11E-08	-1.05E-08
barium	-7.31E-06	-2.97E-02	-5.95E-02	-8.92E-02	-1.19E-01	-1.49E-01	-1.78E-01	-2.08E-01	-2.38E-01	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
bromine	-9.09E-06	-4.66E-05	-8.42E-05	-1.22E-04	-1.59E-04	-1.97E-04	-2.34E-04	-2.72E-04	-3.09E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cadmium	-6.85E-08	-3.81E-05	-7.56E-05	-1.13E-04	-1.50E-04	-1.88E-04	-2.25E-04	-2.63E-04	-3.00E-04	6.30E+00	1.50E+01	-1.66E-10	-8.84E-09	-4.01E-09	-7.99E-09	-6.93E-09	-7.97E-09	-1.20E-08	-1.39E-08	-1.58E-08	-1.55E-08	-1.52E-08
chlorine	-1.27E-03	-3.60E-03	-5.93E-03	-8.25E-03	-1.06E-02	-1.29E-02	-1.52E-02	-1.76E-02	-1.99E-02	-2.22E-02	-2.46E-02	-2.69E-02	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC
chromium (VI)	-9.22E-06	-6.40E-04	-1.27E-03	-1.90E-03	-2.53E-03	-3.16E-03	-3.79E-03	-4.42E-03	-5.05E-03	4.20E+01	5.10E+02	-7.61E-07	-4.87E-05	-2.28E-05	-3.43E-05	-4.57E-05	-5.71E-05	-8.64E-05	-7.98E-05	-9.12E-05	-2.05E-04	-4.49E-04
cobalt	-9.08E-06	-3.78E-05	-6.65E-05	-9.52E-05	-1.24E-04	-1.53E-04	-1.81E-04	-2.10E-04	-2.39E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
copper	-1.05E-05	-6.24E-03	-1.25E-02	-1.87E-02	-2.49E-02	-3.12E-02	-3.74E-02	-4.36E-02	-4.99E-02	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
lead	-1.16E-07	-1.99E-04	-3.98E-04	-5.97E-04	-7.96E-04	-9.95E-04	-1.19E-03	-1.39E-03	-1.59E-03	NA	4.20E-02	-7.87E-13	-1.23E-09	-5.91E-10	-8.97E-10	-1.18E-09	-1.47E-09	-2.07E-09	-2.36E-09	-5.36E-09	-1.16E-08	
manganese	-9.55E-06	-1.91E-01	-3.80E-01	-5.70E-01	-7.60E-01	-9.49E-01	-1.14E+00	-1.33E+00	-1.52E+00	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
mercury	-5.33E-08	-1.13E-05	-2.25E-05	-3.37E-05	-4.50E-05	-5.62E-05	-6.74E-05	-7.87E-05	-8.99E-05	-1.01E-04	-1.12E-04	-1.24E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC
nickel	-9.17E-06	-3.74E-04	-7.39E-04	-1.10E-03	-1.47E-03	-1.83E-03	-2.20E-03	-2.56E-03	-2.93E-03	-3.29E-03	-3.66E-03	-4.02E-03	8.40E-01	9.10E-01	-3.98E-09	-5.08E-08	-2.08E-08	-3.08E-08	-4.09E-08	-5.11E-08	-6.13E-08	-7.14E-08
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC
phosphorus	-1.01E-06	-3.54E-03	-7.08E-03	-1.06E-02	-1.42E-02	-1.77E-02	-2.12E-02	-2.48E-02	-2.83E-02	-3.19E-02	-3.54E-02	-3.89E-02	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC
selenium	-2.04E-06	-1.52E-05	-3.04E-05	-4.56E-05	-6.08E-05	-7.60E-05	-9.11E-05	-1.06E-04	-1.22E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silicon	-9.72E-05	-4.15E-01	-8.29E-01	-1.24E+00	-1.66E+00	-2.07E+00	-2.49E+00	-2.90E+00	-3.32E+00	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silver	-4.74E-08	-4.76E-08	-4.78E-08	-4.80E-08	-4.82E-08	-4.84E-08	-4.86E-08	-4.88E-08	-4.91E-08	-4.93E-08	-4.95E-08	-4.97E-08	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC
sulfates	-8.18E-03	-2.92E-02	-5.03E-02	-7.14E-02	-9.24E-02	-1.14E-01	-1.35E-01	-1.56E-01	-1.77E-01	-1.98E-01	-2.19E-01	-2.40E-01	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC
thallium	-1.12E-09	-4.99E-06	-9.98E-06	-1.50E-05	-2.00E-05	-2.50E-05	-3.00E-05	-3.49E-05	-3.99E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
vanadium	-1.49E-07	-4.33E-04	-8.66E-04	-1.30E-03	-1.73E-03	-2.16E-03	-2.60E-03	-3.03E-03	-3.46E-03	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
zinc	-1.02E-05	-1.99E-03	-3.96E-03	-5.94E-03	-7.92E-03	-9.89E-03	-1.19E-02	-1.38E-02	-1.58E-02	-1.78E-02	-1.98E-02	-2.18E-02	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC
Diesel PM	2.91E-06	2.15E-06	1.39E-06	6.26E-07	-1.35E-07	-8.96E-07	-1.66E-06	-2.42E-06	-3.18E-06	-3.94E-06	-4.70E-06	-5.46E-06	1.05E+00	1.10E+00	5.17E-10	3.53E-10	4.07E-11	2.11E-11	-4.54E-12	-3.23E-11	-5.93E-11	-8.64E-11

	TOTAL	-7.74E-07	-4.88E-05	-2.30E-05	-3.44E-05	-4.58E-05	-5.72E-05	-6.86E-05	-8.00E-05	-9.14E-05	-2.10E-04	-4.50E-04

[1] Residential Maximum Grid No. 655

NA = Not Available
NC = Not Calculated

ug/m^3 = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2016

Table 1-8.1A
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2014 Baseline Operations - Screening Analysis
- Lifetime Exposure, 30-Year Adult Resident Scenario
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	3rd Trimester	Ages 0<2	Ages 2<9	Ages 2<16	Ages 16<30	Ages 16<70
Daily Breathing Rate (DBR)	361 L/kg-d	1090 L/kg-d	861 L/kg-d	745 L/kg-d	335 L/kg-d	290 L/kg-d
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L	0.000001 m^3/L
Age-adjustment (ASF)	10 unitless	10 unitless	3 unitless	3 unitless	3 unitless	3 unitless
Fraction of Averaging Time (ED)	0.00357 unitless	0.01429 unitless	0.01429 unitless	0.01429 unitless	0.2 unitless	0.771 unitless
Fraction of Time at Home (FAH)	1.00 unitless	1.00 unitless	1.00 unitless	1 unitless	0.73 unitless	0.73 unitless

	Start Age	End Age
Child Resident	0	9 Year
School Child	7	18 Year
30-year Resident	0	30 Year
70-year Resident	0	70 Year

Equations
Risk = CalculSBR*EF*CPF*ASF*ED*FAH*CPF
HQ = Cair / REL
Where: HQ = Hazard Quotient | Cair = Exposure Concentration
DBR = Daily Breathing Rate | ASF = Age sensitivity factor
EF = Fraction of Year | ED = Fraction of Averaging time
A = Absorption Fraction | FAH = Fraction of Time at Home
CF = Conversion Factor | CPF = Cancer Potency Factor

	Concentration at Location w/Maximum Risk (ug/m^3)												Toxicity Criteria		Cancer Risk to Adult 30-Year Resident												TOTAL
	Operation by Year												EPA Inhalation CPF ($mg/kg-day)^{-1}$	CalEPA Inhalation CPF ($mg/kg-day)^{-1}$	Operation by Year												Cancer Risk to Resident for Max Location
TAC	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035			2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035 - 2049	
1,2,4-trimethylbenzene	-1.13E-04	-1.16E-04	-1.18E-04	-1.21E-04	-1.24E-04	-1.27E-04	-1.30E-04	-1.32E-04	-1.35E-04	-1.38E-04	-1.41E-04	-1.44E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	-6.08E-05	-6.23E-05	-6.39E-05	-6.55E-05	-6.70E-05	-6.86E-05	-7.02E-05	-7.18E-05	-7.33E-05	-7.49E-05	-7.65E-05	-7.80E-05	1.05E-01	6.00E-01	-5.89E-09	-5.58E-09	-5.29E-09	-5.01E-09	-4.75E-09	-4.50E-09	-4.27E-09	-4.05E-09	-3.84E-09	-3.64E-09	-3.45E-09	-3.24E-08	
2,2,4-trimethylpentane	-2.44E-04	-2.52E-04	-2.59E-04	-2.66E-04	-2.73E-04	-2.80E-04	-2.87E-04	-2.93E-04	-2.99E-04	-3.06E-04	-3.12E-04	-3.19E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	-2.05E-04	-2.05E-04	-2.05E-04	-2.05E-04	-2.06E-04	-2.06E-04	-2.06E-04	-2.07E-04	-2.07E-04	-2.07E-04	-2.08E-04	-2.08E-04	2.70E-03	1.00E-02	-3.31E-10	-3.06E-10	-2.86E-10	-2.68E-10	-2.52E-10	-2.37E-10	-2.24E-10	-2.12E-10	-2.01E-10	-1.90E-10	-1.81E-10	-1.62E-09	
acrolein	-1.34E-05	-1.38E-05	-1.42E-05	-1.46E-05	-1.50E-05	-1.53E-05	-1.57E-05	-1.61E-05	-1.65E-05	-1.69E-05	-1.72E-05	-1.76E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
benzene	-3.03E-04	-3.10E-04	-3.17E-04	-3.24E-04	-3.31E-04	-3.38E-04	-3.46E-04	-3.53E-04	-3.60E-04	-3.67E-04	-3.74E-04	-3.81E-04	2.73E-02	1.00E-01	-4.90E-09	-4.63E-09	-4.39E-09	-4.17E-09	-3.96E-09	-3.77E-09	-3.59E-09	-3.42E-09	-3.26E-09	-3.11E-09	-2.97E-09	-3.08E-08	
cumene	-1.70E-06	-1.73E-06	-1.77E-06	-1.80E-06	-1.83E-06	-1.86E-06	-1.90E-06	-1.93E-06	-1.96E-06	-2.00E-06	-2.03E-06	-2.06E-06	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cyclohexane	-6.43E-05	-6.61E-05	-6.79E-05	-6.96E-05	-7.14E-05	-7.32E-05	-7.50E-05	-7.68E-05	-7.86E-05	-8.04E-05	-8.22E-05	-8.40E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	-1.16E-04	-1.19E-04	-1.22E-04	-1.25E-04	-1.28E-04	-1.31E-04	-1.34E-04	-1.37E-04	-1.41E-04	-1.44E-04	-1.47E-04	-1.50E-04	8.70E-03	8.70E-03	-1.63E-10	-1.55E-10	-3.26E-11	-3.34E-11	-3.42E-11	-3.50E-11	-3.58E-11	-3.66E-11	-3.74E-11	-3.82E-11	-3.91E-11	-4.03E-10	-1.04E-09
ethylene	-1.00E-03	-1.02E-03	-1.04E-03	-1.05E-03	-1.07E-03	-1.09E-03	-1.11E-03	-1.12E-03	-1.14E-03	-1.16E-03	-1.18E-03	-1.19E-03	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	-5.15E-04	-5.18E-04	-5.22E-04	-5.25E-04	-5.29E-04	-5.32E-04	-5.36E-04	-5.39E-04	-5.43E-04	-5.46E-04	-5.50E-04	-5.53E-04	4.55E-02	2.10E-02	-1.78E-09	-1.62E-09	-1.48E-09	-1.36E-09	-1.25E-09	-1.15E-09	-1.06E-09	-9.77E-10	-9.00E-10	-8.31E-10	-7.70E-10	-1.01E-08	
hexane, n- isoprene, except from vegetative emission sources	-1.69E-04	-1.73E-04	-1.78E-04	-1.83E-04	-1.87E-04	-1.92E-04	-1.97E-04	-2.01E-04	-2.06E-04	-2.11E-04	-2.15E-04	-2.20E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	-1.47E-05	-1.51E-05	-1.55E-05	-1.59E-05	-1.63E-05	-1.67E-05	-1.71E-05	-1.76E-05	-1.80E-05	-1.84E-05	-1.88E-05	-1.92E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	-3.77E-05	-3.77E-05	-3.77E-05	-3.76E-05	-3.76E-05	-3.75E-05	-3.75E-05	-3.74E-05	-3.74E-05	-3.73E-05	-3.73E-05	-3.73E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
naphthalene	-7.04E-06	-7.17E-06	-7.30E-06	-7.43E-06	-7.56E-06	-7.69E-06	-7.82E-06	-7.95E-06	-8.09E-06	-8.22E-06	-8.35E-06	-8.48E-06	1.19E-01	1.20E-01	-1.37E-10	-1.26E-10	-2.68E-11	-2.75E-11	-2.78E-11	-2.82E-11	-2.87E-11	-2.92E-11	-2.97E-11	-3.02E-11	-3.07E-11	-3.15E-10	-9.39E-10
propionaldehyde	-2.68E-05	-2.69E-05	-2.69E-05	-2.69E-05	-2.70E-05	-2.70E-05	-2.70E-05	-2.71E-05	-2.71E-05	-2.71E-05	-2.71E-05	-2.71E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
propylene	-3.79E-04	-3.87E-04	-3.96E-04	-4.05E-04	-4.14E-04	-4.22E-04	-4.31E-04	-4.40E-04	-4.48E-04	-4.57E-04	-4.66E-04	-4.75E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
styrene	-1.37E-05	-1.40E-05	-1.43E-05	-1.47E-05	-1.50E-05	-1.54E-05	-1.57E-05	-1.60E-05	-1.64E-05	-1.67E-05	-1.71E-05	-1.74E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
toluene	-6.30E-04	-6.47E-04	-6.64E-04	-6.80E-04	-6.97E-04	-7.14E-04	-7.30E-04	-7.47E-04	-7.64E-04	-7.80E-04	-7.97E-04	-8.14E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
xylene (total)	-5.23E-04	-5.38E-04	-5.50E-04	-5.64E-04	-5.78E-04	-5.92E-04	-6.06E-04	-6.20E-04	-6.34E-04	-6.48E-04	-6.62E-04	-6.76E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
aluminum	-3.01E-05	-3.13E-01	-2.67E-01	-4.00E-01	-5.34E-01	-6.67E-01	-8.00E-01	-9.34E-01	-1.07E+00	-1.20E+00	-1.33E+00	-1.47E+00	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ammonium ion	-6.51E-06	-3.66E-03	-7.28E-03	-1.09E-02	-1.46E-02	-1.82E-02	-2.19E-02	-2.55E-02	-2.91E-02	-3.28E-02	-3.64E-02	-4.00E-02	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
antimony	-7.99E-08	-8.49E-05	-1.70E-04	-2.55E-04	-3.40E-04	-4.24E-04	-5.09E-04	-5.94E-04	-6.79E-04	-7.64E-04	-8.49E-04	-9.34E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
arsenic	-1.13E-08	-2.13E-05	-4.26E-05	-6.40E-05	-8.53E-05	-1.07E-04	-1.28E-04	-1.50E-04	-1.72E-04	-1.94E-04	-2.16E-04	-2.38E-04	1.51E+01	1.20E+01	-1.82E-08	-1.72E-08	-1.63E-08	-1.54E-08	-1.46E-08	-1.38E-08	-1.31E-08	-1.24E-08	-1.17E-08	-1.11E-08	-1.05E-08	-1.13E-06	
barium	-7.31E-06	-2.97E-02	-5.95E-02	-8.92E-02	-1.19E-01	-1.49E-01	-1.78E-01	-2.08E-01	-2.38E-01	-2.68E-01	-2.97E-01	-3.27E-01	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
bromine	-9.09E-06	-4.66E-05	-8.42E-05	-1.22E-04	-1.59E-04	-1.97E-04	-2.34E-04	-2.72E-04	-3.09E-04	-3.47E-04	-3.84E-04	-4.22E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cadmium	-6.85E-08	-3.81E-05	-7.56E-05	-1.13E-04	-1.50E-04	-1.88E-04	-2.25E-04	-2.63E-04	-3.00E-04	-3.38E-04	-3.75E-04	-4.13E-04	6.30E+00	1.50E+01	-1.66E-10	-8.84E-09	-4.01E-09	-7.99E-09	-6.93E-09	-7.97E-09	-1.20E-08	-1.39E-08	-1.58E-08	-1.55E-08	-1.52E-08	-2.83E-07	
chlorine	-1.27E-03	-3.60E-03	-5.93E-03	-8.25E-03	-1.06E-02	-1.29E-02	-1.52E-02	-1.76E-02	-1.99E-02	-2.22E-02	-2.46E-02	-2.69E-02	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
chromium (VI)	-9.22E-06	-6.40E-04	-1.27E-03	-1.90E-03	-2.53E-03	-3.16E-03	-3.79E-03	-4.42E-03	-5.05E-03	-5.68E-03	-6.31E-03	-6.94E-03	4.20E+01	5.10E+02	-7.61E-07	-4.87E-05	-2.28E-05	-3.43E-05	-4.57E-05	-5.71E-05	-8.64E-05	-7.98E-05	-9.12E-05	-2.05E-04	-4.49E-04	-4.18E-03	
cobalt	-9.08E-06	-3.78E-05	-6.65E-05	-9.52E-05	-1.24E-04	-1.53E-04	-1.81E-04	-2.10E-04	-2.39E-04	-2.67E-04	-2.96E-04	-3.25E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
copper	-1.05E-05	-6.24E-03	-1.25E-02	-1.87E-02	-2.49E-02	-3.12E-02	-3.74E-02	-4.36E-02	-4.99E-02	-5.61E-02	-6.23E-02	-6.86E-02	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
lead	-1.16E-07	-1.99E-04	-3.98E-04	-5.97E-04	-7.96E-04	-9.95E-04	-1.19E-03	-1.39E-03	-1.59E-03	-1.79E-03	-1.99E-03	-2.19E-03	NA	4.20E-02	-7.87E-13	-1.23E-09	-5.91E-10	-8.97E-10	-1.18E-09	-1.47E-09	-2.07E-09	-2.36E-09	-5.36E-09	-1.16E-08	-1.74E-06		
manganese	-9.55E-06	-1.91E-01	-3.80E-01	-5.70E-01	-7.60E-01	-9.49E-01	-1.14E+00	-1.33E+00	-1.52E+00	-1.71E+00	-1.90E+00	-2.09E+00	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
mercury	-5.33E-08	-1.13E-05	-2.25E

Table 1-8.3
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2014 Baseline Operations - Screening Analysis
- Lifetime Exposure, Worker Scenario
(Based on Peak Location of Commercial Cancer Risks[1])

Exposure Parameters	Ages 16<30	Ages 16<70
Worker 8-hr Daily Breathing Rate (DBR)	240 L/kg-d	230 L/kg-d
Fraction of Year (EF)	0.69 unitless	0.69 unitless
Absorption Fraction (A)	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L
Age-adjustment (ASF)	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.01429 unitless	0.01429 unitless
Worker Adjustment Factor (WAH)	1 unitless	1 unitless

Equations
Risk = Cair*DBR*EF*CF*A*ASF*ED*FAH*CPF
HQ = Cair / REL
Where: HQ = Hazard Quotient — Cair = Exposure Concentration
DBR = Daily Breathing Rate — ASF = Age sensitivity factor
EF = Fraction of Year — ED = Fraction of Averaging time
A = Absorption Fraction — FAH = Fraction of Time at Home
CF = Conversion Factor — CPF = Cancer Potency Factor

TAC	Concentration at Location w/Maximum Risk (ug/m^3) Operation by Year 2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	Toxicity Criteria EPA Inhalation CPF (mg/kg-day)$^{-1}$	CalEPA Inhalation CPF (mg/kg-day)$^{-1}$	Cancer Risk to Worker Operation by Year 2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Ops (2015-2034)	TOTAL Cancer Risk to Worker for Max Locations
1,2,4-trimethylbenzene	-1.13E-04	-1.16E-04	-1.18E-04	-1.21E-04	-1.24E-04	-1.27E-04	-1.30E-04	-1.32E-04	-1.35E-04	-1.38E-04	-1.41E-04	-1.44E-04	7.00E+00	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	-6.08E-05	-6.23E-05	-6.39E-05	-6.55E-05	-6.70E-05	-6.86E-05	-7.02E-05	-7.18E-05	-7.33E-05	-7.49E-05	-7.65E-05	-7.80E-05	1.70E-01	6.00E-01	-8.59E-11	-8.78E-11	-9.00E-11	-9.23E-11	-9.45E-11	-9.67E-11	-9.89E-11	-1.01E-10	-1.03E-10	-1.06E-10	-1.08E-10	-1.49E-09	-2.95E-09
2,2,4-trimethylpentane	-2.34E-04	-2.32E-04	-2.59E-04	-2.66E-04	-2.72E-04	-2.79E-04	-2.86E-04	-2.92E-04	-2.99E-04	-3.06E-04	-3.13E-04	-3.19E-04	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	-2.05E-04	-2.05E-04	-2.05E-04	-2.05E-04	-2.06E-04	-2.06E-04	-2.06E-04	-2.07E-04	-2.07E-04	-2.07E-04	-2.07E-04	-2.08E-04	9.00E+00	1.40E+02	-1.49E-06	-1.49E-06	-1.47E-06	-1.47E-06	-1.47E-06	-1.47E-06	-1.47E-06	-1.48E-06	-1.48E-06	-1.48E-06	-1.48E-06	-1.48E-06	-1.48E-06
acrolein	-1.34E-05	-1.38E-05	-1.42E-05	-1.44E-05	-1.50E-05	-1.53E-05	-1.57E-05	-1.61E-05	-1.65E-05	-1.68E-05	-1.72E-05	-1.76E-05	2.00E-02	3.50E-01	-3.84E-08	-3.93E-08	-4.04E-08	-4.14E-08	-4.25E-08	-4.35E-08	-4.45E-08	-4.55E-08	-4.65E-08	-4.75E-08	-4.85E-08	-6.03E-08	-1.33E-07
benzene	-3.03E-04	-3.10E-04	-3.17E-04	-3.24E-04	-3.31E-04	-3.38E-04	-3.46E-04	-3.53E-04	-3.60E-04	-3.67E-04	-3.74E-04	-3.81E-04	2.73E-02	1.00E-01	-7.12E-11	-7.28E-11	-7.47E-11	-7.66E-11	-7.86E-11	-8.05E-11	-8.24E-11	-8.44E-11	-8.63E-11	-8.83E-11	-9.02E-11	-2.09E-09	
cumene	-1.70E-05	-1.73E-05	-1.77E-05	-1.80E-05	-1.83E-05	-1.86E-05	-1.90E-05	-1.93E-05	-1.96E-05	-2.00E-05	-2.03E-05	-2.06E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cyclohexane	-6.43E-05	-6.61E-05	-6.79E-05	-6.96E-05	-7.14E-05	-7.32E-05	-7.50E-05	-7.68E-05	-7.86E-05	-8.04E-05	-8.22E-05	-8.40E-05	6.00E+00	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	-1.16E-04	-1.19E-04	-1.22E-04	-1.25E-04	-1.28E-04	-1.31E-04	-1.34E-04	-1.37E-04	-1.41E-04	-1.44E-04	-1.47E-04	-1.50E-04	8.70E-03	2.00E+00	-5.69E-08	-5.84E-08	-6.01E-08	-6.17E-08	-6.34E-08	-6.50E-08	-6.67E-08	-6.83E-08	-7.00E-08	-7.16E-08	-7.33E-08	-7.48E-08	
ethylene	-1.10E-03	-1.12E-03	-1.14E-03	-1.17E-03	-1.19E-03	-1.21E-03	-1.24E-03	-1.26E-03	-1.28E-03	-1.31E-03	-1.33E-03	-1.35E-03	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	-5.15E-04	-5.18E-04	-5.22E-04	-5.25E-04	-5.29E-04	-5.32E-04	-5.36E-04	-5.39E-04	-5.43E-04	-5.46E-04	-5.50E-04	-5.53E-04	9.80E+00	9.00E+00	-5.73E-05	-5.76E-05	-5.80E-05	-5.84E-05	-5.88E-05	-5.91E-05	-5.95E-05	-5.99E-05	-6.03E-05	-6.07E-05	-6.11E-05	-6.15E-05	
hexane, n-	-1.69E-04	-1.73E-04	-1.77E-04	-1.80E-04	-1.84E-04	-1.87E-04	-1.92E-04	-1.97E-04	-2.02E-04	-2.06E-04	-2.11E-04	-2.15E-04	7.00E+03	2.47E-08	-2.45E-08	-2.50E-08	-2.56E-08	-2.61E-08	-2.67E-08	-2.72E-08	-2.78E-08	-2.83E-08	-2.89E-08	-2.94E-08	-3.01E-08	-3.07E-08	-3.14E-08
isoprene, except from vegetative emission sources	-1.47E-05	-1.51E-05	-1.55E-05	-1.59E-05	-1.63E-05	-1.67E-05	-1.71E-05	-1.76E-05	-1.80E-05	-1.84E-05	-1.88E-05	-1.92E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	-1.29E-05	-1.33E-05	-1.36E-05	-1.40E-05	-1.43E-05	-1.47E-05	-1.50E-05	-1.53E-05	-1.57E-05	-1.60E-05	-1.64E-05	-1.67E-05	2.00E+04	4.00E+03	-3.23E-09	-3.32E-09	-3.41E-09	-3.49E-09	-3.58E-09	-3.66E-09	-3.75E-09	-3.83E-09	-3.92E-09	-4.01E-09	-4.09E-09	-4.18E-09	
methyl ethyl ketone	-3.77E-05	-3.87E-05	-3.96E-05	-4.05E-05	-4.14E-05	-4.23E-05	-4.32E-05	-4.41E-05	-4.50E-05	-4.59E-05	-4.68E-05	-4.77E-05	3.00E+03	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
naphthalene	-7.04E-06	-7.17E-06	-7.30E-06	-7.43E-06	-7.56E-06	-7.69E-06	-7.82E-06	-7.95E-06	-8.08E-06	-8.22E-06	-8.35E-06	-8.48E-06	3.00E+01	9.00E+00	-7.82E-07	-7.99E-07	-8.19E-07	-8.39E-07	-8.59E-07	-8.79E-07	-8.98E-07	-9.18E-07	-9.38E-07	-9.58E-07	-9.78E-07	-9.42E-07	
propionaldehyde	-2.68E-05	-2.68E-05	-2.68E-05	-2.69E-05	-2.70E-05	-2.70E-05	-2.70E-05	-2.71E-05	-2.71E-05	-2.71E-05	-2.72E-05	-2.72E-05	8.00E+00	NA	-3.33E-06	-3.33E-06	-3.33E-06	-3.33E-06	-3.33E-06	-3.33E-06	-3.33E-06	-3.33E-06	-3.33E-06	-3.33E-06	-3.33E-06	-3.33E-06	
propylene	-3.79E-04	-3.87E-04	-3.96E-04	-4.05E-04	-4.14E-04	-4.22E-04	-4.31E-04	-4.40E-04	-4.48E-04	-4.57E-04	-4.66E-04	-4.75E-04	3.00E+03	1.20E+01	-1.28E-07	-1.29E-07	-1.32E-07	-1.35E-07	-1.38E-07	-1.41E-07	-1.44E-07	-1.47E-07	-1.49E-07	-1.52E-07	-1.55E-07	-1.58E-07	
styrene	-1.13E-05	-1.40E-05	-1.43E-05	-1.47E-05	-1.50E-05	-1.54E-05	-1.57E-05	-1.60E-05	-1.64E-05	-1.67E-05	-1.71E-05	-1.74E-05	1.70E+03	9.00E+02	-1.52E-08	-1.55E-08	-1.59E-08	-1.63E-08	-1.67E-08	-1.71E-08	-1.74E-08	-1.78E-08	-1.82E-08	-1.86E-08	-1.90E-08	-1.93E-08	
toluene	-6.30E-04	-6.47E-04	-6.64E-04	-6.80E-04	-6.97E-04	-7.14E-04	-7.30E-04	-7.47E-04	-7.64E-04	-7.80E-04	-7.97E-04	-8.14E-04	5.00E+03	7.00E+02	-7.49E-07	-7.69E-07	-7.80E-07	-8.06E-07	-8.26E-07	-8.46E-07	-8.66E-07	-8.86E-07	-9.06E-07	-9.26E-07	-9.46E-07	-9.66E-07	
xylene (total)	-5.23E-04	-5.36E-04	-5.50E-04	-5.64E-04	-5.78E-04	-5.92E-04	-6.06E-04	-6.20E-04	-6.34E-04	-6.48E-04	-6.62E-04	-6.76E-04	1.00E+02	7.00E+02	-7.49E-07	-7.69E-07	-7.80E-07	-8.06E-07	-8.26E-07	-8.46E-07	-8.66E-07	-8.86E-07	-9.06E-07	-9.26E-07	-9.46E-07	-9.66E-07	
aluminum	-3.01E-05	-3.13E-05	-2.67E-05	-1.48E-05	-1.50E-05	-1.54E-05	-1.57E-05	-1.60E-05	-1.64E-05	-1.67E-05	-1.71E-05	-1.74E-05	4.00E+02	1.40E+01	-5.82E-08	-6.06E-08	-6.17E-08	-4.20E-08	-4.29E-08	-4.38E-08	-4.48E-08	-4.57E-08	-4.67E-08	-4.76E-08	-4.86E-08	-2.94E-08	
ammonium ion	-6.61E-06	-3.65E-03	-7.28E-03	-1.09E-02	-1.46E-02	-1.82E-02	-2.18E-02	-2.55E-02	-2.91E-02	-3.28E-02	-3.64E-02	-4.00E-02		NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
antimony	-7.39E-08	-8.46E-05	-1.70E-04	-2.55E-04	-3.40E-04	-4.24E-04	-5.09E-04	-5.94E-04	-6.78E-04	-7.64E-04	-8.49E-04	-9.34E-04		NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
arsenic	-1.33E-08	-2.19E-05	-4.29E-05	-6.43E-05	-8.58E-05	-1.07E-04	-1.29E-04	-1.50E-04	-1.72E-04	-1.93E-04	-2.14E-04	-2.36E-04	1.51E+01	1.20E+01	-3.76E-13	-6.09E-10	-1.21E-09	-1.81E-09	-2.42E-09	-3.02E-09	-3.63E-09	-4.23E-09	-4.83E-09	-5.44E-09	-6.04E-09	-9.00E-08	-1.23E-07
barium	-7.31E-05	-2.97E-02	-5.93E-02	-8.89E-02	-1.19E-01	-1.48E-01	-1.78E-01	-2.08E-01	-2.38E-01	-2.68E-01	-2.97E-01	-3.27E-01		NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
beryllium	-9.09E-06	-4.66E-03	-9.42E-03	-1.42E-02	-1.89E-02	-2.36E-02	-2.83E-02	-3.30E-02	-3.77E-02	-4.24E-02	-4.71E-02	-5.18E-02		NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
bromine	-9.09E-06	-4.66E-03	-9.42E-03	-1.42E-02	-1.89E-02	-2.36E-02	-2.83E-02	-3.30E-02	-3.77E-02	-4.24E-02	-4.71E-02	-5.18E-02		NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cadmium	-6.83E-08	-3.81E-05	-7.56E-05	-1.13E-04	-1.50E-04	-1.88E-04	-2.25E-04	-2.63E-04	-3.00E-04	-3.38E-04	-3.75E-04	-4.13E-04	1.00E+02	2.00E+02	-3.43E-06	-1.91E-04	-3.78E-04	-5.66E-04	-7.52E-04	-9.39E-04	-1.13E-03	-1.31E-03	-1.50E-03	-1.69E-03	-1.88E-03	-2.00E-03	
chlorine	-1.27E-03	-1.30E-03	-1.33E-03	-1.36E-03	-1.39E-03	-1.42E-03	-1.45E-03	-1.48E-03	-1.51E-03	-1.54E-03	-1.57E-03	-1.60E-03	2.00E+01	2.00E+01	-2.84E-08	-2.91E-08	-2.99E-08	-3.07E-08	-3.14E-08	-3.22E-08	-3.30E-08	-3.37E-08	-3.45E-08	-3.53E-08	-3.60E-08	-4.46E-08	-9.36E-08
chromium (VI)	-9.22E-06	-6.40E-04	-1.27E-03	-1.90E-03	-2.53E-03	-3.16E-03	-3.78E-03	-4.42E-03	-5.05E-03	-5.68E-03	-6.31E-03	-6.94E-03	1.00E+01	2.00E+01	-4.61E-05	-3.20E-03	-6.35E-03	-9.50E-03	-1.27E-02	-1.58E-02	-1.90E-02	-2.21E-02	-2.53E-02	-2.84E-02	-3.16E-02	-3.47E-02	
cobalt	-9.09E-06	-4.66E-03	-9.42E-03	-1.42E-02	-1.89E-02	-2.36E-02	-2.83E-02	-3.30E-02	-3.77E-02	-4.24E-02	-4.71E-02	-5.18E-02		NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
copper	-1.05E-05	-6.24E-03	-1.25E-02	-1.87E-02	-2.49E-02	-3.12E-02	-3.74E-02	-4.36E-02	-4.99E-02	-5.61E-02	-6.23E-02	-6.86E-02	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
lead	-1.16E-07	-1.19E-04	-3.98E-04	-5.97E-04	-7.96E-04	-9.95E-04	-1.19E-03	-1.39E-03	-1.59E-03	-1.79E-03	-1.99E-03	-2.19E-03	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
manganese	-9.55E-06	-1.91E-03	-3.80E-03	-5.71E-03	-7.60E-03	-9.49E-03	-1.14E-02	-1.33E-02	-1.52E-02	-1.71E-02	-1.90E-02	-2.09E-02	5.00E+02	9.00E+02	-1.08E-04	-2.12E-03	-4.23E-03	-6.33E-03	-8.44E-03	-1.05E-02	-1.27E-02	-1.48E-02	-1.69E-02	-1.90E-02	-2.11E-02	-2.32E-02	
mercury	-5.33E-06	-1.73E-05	-2.29E-05	-3.17E-05	-4.55E-05	-5.62E-05	-6.75E-05	-7.87E-05	-8.99E-05	-1.01E-04	-1.12E-04	-1.24E-04	3.00E+01	1.40E+02	-6.68E-04	-2.04E-03	-2.62E-03	-3.64E-03	-4.66E-03	-5.68E-03	-6.70E-03	-7.72E-03	-8.74E-03	-9.76E-03	-1.08E-02	-1.18E-02	-2.87E-02
nickel	-9.17E-06	-3.74E-04	-7.39E-04	-1.10E-03	-1.47E-03	-1.83E-03	-2.20E-03	-2.56E-03	-2.93E-03	-3.29E-03	-3.66E-03	-4.02E-03	9.00E+02	1.40E+02	-6.68E-04	-2.04E-03	-2.62E-03	-3.64E-03	-4.66E-03	-5.68E-03	-6.70E-03	-7.72E-03	-8.74E-03	-9.76E-03	-1.08E-02	-1.18E-02	-2.87E-02
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
phosphorus	-1.01E-06	-3.54E-04	-7.08E-03	-1.06E-02	-1.42E-02	-1.77E-02	-2.12E-02	-2.48E-02	-2.83E-02	-3.19E-02	-3.54E-02	-3.89E-02		NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
selenium	-2.04E-08	-1.52E-05	-3.04E-05	-4.56E-05	-6.08E-05	-7.60E-05	-9.11E-05	-1.06E-04	-1.22E-04	-1.37E-04	-1.52E-04	-1.67E-04	2.00E+01	2.00E+01	-1.02E-09	-7.60E-07	-1.52E-06	-2.28E-06	-3.04E-06	-3.80E-06	-4.56E-06	-5.32E-06	-6.09E-06	-6.84E-06	-7.60E-06	-8.35E-06	
silicon	-9.72E-05	-4.15E-02	-8.29E-02	-1.24E-01	-1.66E-01	-2.07E-01	-2.49E-01	-2.90E-01	-3.32E-01	-3.73E-01	-4.15E-01	-4.56E-01	3.00E+03	3.00E+03	-3.24E-05	-1.38E-03	-2.76E-03	-4.14E-03	-5.52E-03	-6.91E-03	-8.29E-03	-9.67E-03	-1.11E-02	-1.24E-02	-1.38E-02	-1.52E-02	
silver	-4.74E-08	-4.74E-05	-4.78E-05	-4.80E-05	-4.82E-05	-4.84E-05	-4.86E-05	-4.91E-05	-4.93E-05	-4.95E-05	-4.97E-05	-4.98E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
sulfates	-8.18E-03	-2.92E-02	-5.03E-02	-7.14E-02	-9.24E-02	-1.14E-01	-1.35E-01	-1.56E-01	-1.77E-01	-1.98E-01	-2.19E-01	-2.40E-01	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
thallium	-1.12E-09	-4.89E-06	-9.88E-06	-1.50E-05	-2.00E-05	-2.50E-05	-3.00E-05	-3.49E-05	-3.99E-05	-4.49E-05	-4.99E-05	-5.49E-05	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
vanadium	-1.14E-07	-4.33E-04	-8.66E-04	-1.30E-03	-1.73E-03	-2.16E-03	-2.60E-03	-3.03E-03	-3.46E-03	-3.90E-03	-4.33E-03	-4.76E-03	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
zinc	-1.02E-05	-1.99E-03	-3.96E-03	-5.94E-03	-7.92E-03	-9.89E-03	-1.19E-02	-1.38E-02	-1.58E-02	-1.78E-02	-1.98E-02	-2.18E-02	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Diesel PM	2.91E-06	2.15E-06	1.39E-06	6.26E-07	-1.35E-07	-8.96E-07	-1.66E-06	-2.42E-06	-3.18E-06	-3.94E-06	-4.70E-06	-5.46E-06	5.00E+00	5.00E+00	5.82E-07	4.30E-07	2.77E-07	1.25E-07	-2.70E-08	-1.79E-07	-3.31E-07	-4.84E-07	-6.36E-07	-7.88E-07	-9.40E-07	-1.09E-06	
																									TOTAL	-1.01	-0.31	-0.60	-0.90	-1.20	-1.50	-1.79	-2.09	-2.39	-2.69	-2.98	-3.28

[1] Commercial Maximum Grid No. 655

NA = Not Available — ug/m^3 = micrograms per cubic meter
NC = Not Calculated — mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2016

Table 1-8.1D
2015 OEHHA Cancer Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2014 Baseline Operations - Screening Analysis
- Lifetime Exposure, School Child Scenario, 9-year and 12-year
(Based on Peak Location of Residential Cancer Risks[1])

Equations
Risk = Cair*DBR*EF*CF*A*ASF*ED*FAH*CPF
HQ = Cair / REL
Where: HQ = Hazard Quotient — Cair = Exposure Concentration
DBR = Daily Breathing Rate — ASF = Age sensitivity factor
EF = Fraction of Year — ED = Fraction of Averaging time
A = Absorption Fraction — FAH = Fraction of Time at Home
CF = Conversion Factor — CPF = Cancer Potency Factor

TAC	Cancer Risk to School Child Operation by Year 2024 Ages 2<9	2025 Ages 2<9	2026 Ages 2<16	2027 Ages 2<16	2028 Ages 2<16	2029 Ages 2<16	2030 Ages 2<16	2031 Ages 2<16	2032 Ages 2<16	2033 Ages 2<16	2034 Ages 16<30	2035 Ages 16<30	2024-2032 TOTAL Cancer Risk 9-yr School Child for Max Location	2024-2035 TOTAL Cancer Risk 12-yr School Child for Max Location
1,2,4-trimethylbenzene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	-9.59E-10	-9.84E-10	-8.19E-10	-8.40E-10	-8.60E-10	-8.80E-10	-9.00E-10	-9.20E-10	-9.40E-10	-1.48E-10	-1.51E-10	-1.54E-10	-8.10E-09	-8.55E-09
2,2,4-trimethylpentane	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	-5.38E-11	-5.39E-11	-4.39E-11	-4.39E-11	-4.40E-11	-4.40E-11	-4.41E-11	-4.42E-11	-4.42E-11	-6.81E-12	-6.82E-12	-6.83E-12	-4.16E-10	-4.36E-10
acrolein	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
benzene	-7.97E-10	-8.16E-10	-6.78E-10	-6.93E-10	-7.08E-10	-7.23E-10	-7.38E-10	-7.53E-10	-7.68E-10	-1.21E-10	-1.23E-10	-1.25E-10	-6.68E-09	-7.04E-09
cumene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cyclohexane	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	-2.66E-11	-2.71E-11	-2.27E-11	-2.31E-11	-2.35E-11	-2.40E-11	-2.45E-11	-2.50E-11	-2.55E-11	-2.61E-11	-4.11E-12	-4.19E-12	-4.28E-12	-2.25E-10	-2.37E-10
ethylene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	-2.84E-10	-2.86E-10	-2.34E-10	-2.36E-10	-2.37E-10	-2.39E-10	-2.40E-10	-2.42E-10	-2.44E-10	-3.77E-11	-3.80E-11	-3.82E-11	-2.24E-09	-2.36E-09
hexane, n-	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
isoprene, except from vegetative emission sources	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
naphthalene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
propionaldehyde	-2.22E-11	-2.26E-11	-1.87E-11	-1.91E-11	-1.94E-11	-1.97E-11	-2.01E-11	-2.04E-11	-2.07E-11	-3.24E-12	-3.29E-12	-3.35E-12	-1.83E-10	-1.93E-10
propylene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
styrene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
toluene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
xylene (total)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
aluminum	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ammonium ion	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
antimony	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
arsenic	-1.43E-11	-1.45E-11	-1.21E-11	-1.23E-11	-1.25E-11	-1.28E-11	-1.30E-11	-1.33E-11	-1.35E-11	-2.16E-12	-2.19E-12	-2.23E-12	-1.19E-10	-1.28E-10
barium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
beryllium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
bromine	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cadmium	-4.27E-09	-4.33E-09	-3.61E-09	-3.67E-09	-3.73E-09	-3.79E-09	-3.85E-09	-3.91E-09	-3.97E-09	-6.47E-10	-6.56E-10	-6.65E-10	-3.57E-08	-3.81E-08
chlorine	-1.77E-10	-1.80E-10	-1.50E-10	-1.53E-10	-1.56E-10	-1.59E-10	-1.62E-10	-1.65E-10	-1.68E-10	-2.68E-11	-2.72E-11	-2.76E-11	-1.48E-09	-1.58E-09
chromium (VI)	-1.24E-07	-8.58E-06	-1.38E-05	-2.07E-05	-2.76E-05	-3.45E-05	-4.13E-05	-4.82E-05	-5.51E-05	-9.53E-06	-1.06E-05	-1.16E-05	-2.50E-04	-2.82E-04
cobalt	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
copper	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
lead	-1.28E-13	-2.20E-10	-3.57E-10	-5.36E-10	-7.14E-10	-8.93E-10	-1.07E-09	-1.25E-09	-1.43E-09	-2.47E-10	-2.75E-10	-3.02E-10	-9.47E-09	-7.29E-09
manganese	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
mercury	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
nickel	-2.19E-10	-8.95E-09	-1.44E-08	-2.15E-08	-2.86E-08	-3.57E-08	-4.28E-08	-4.99E-08	-5.70E-08	-9.85E-09	-1.09E-08	-1.20E-08	-2.59E-07	-2.92E-07
non-phosphate phosphorous	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
phosphorus	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
selenium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silicon	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silver	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
sulfates	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
thallium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
vanadium	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
zinc	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Diesel PM	8.42E-11	6.22E-11	3.26E-11	1.47E-11	-3.17E-12	-2.11E-11	-3.90E-11	-5.68E-11	-7.47E-11	-1.43E-11	-1.70E-11	-1.98E-11	-1.08E-12	-5.21E-11
	TOTAL -1.26E-07	-8.60E-06	-1.39E-05	-2.08E-05	-2.76E-05	-3.45E-05	-4.14E-05	-4.83E-05	-5.52E-05	-9.55E-06	-1.06E-05	-1.17E-05	-2.50E-04	-2.82E-04

NA = Not Available — ug/m^3 = micrograms per cubic meter
NC = Not Calculated — mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2016

Table 1-8.4
2015 OEHHA Hazard Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2014 Baseline Operations - Screening Analysis
Worker Scenario
(Based on Peak Location of Commercial Cancer Risks[1])

Exposure Parameters	Ages 16<30	Ages 16<70
Worker 8-hr Daily Breathing Rate (DBR)	240 L/kg-d	230 L/kg-d
Fraction of Year (EF)	0.68 unitless	0.68 unitless
Absorption Fraction (A)	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m^3/L	0.000001 m^3/L
Age-adjustment (ASF)	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.01 unitless	0.167 unitless
Worker Adjustment Factor (WAH)	1 unitless	1 unitless

Equations
Risk = Cair*DBR*EF*CF*A*ASF*ED*FAH*CPF
HQ = Cair / REL
Where: HQ = Hazard Quotient — Cair = Exposure Concentration
DBR = Daily Breathing Rate — ASF = Age sensitivity factor
EF = Fraction of Year — ED = Fraction of Averaging time
A = Absorption Fraction — FAH = Fraction of Time at Home
CF = Conversion Factor — CPF = Cancer Potency Factor

TAC	Concentration at Location w/Maximum Risk (ug/m^3) Operations 2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	Toxicity Criteria EPA REL (ug/m^3)	CalEPA REL (ug/m^3)	Hazard Quotient to Worker Operations 2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035

Table 1-10.1
2035 OEHHA Risk Calculation for LAX Landside Access Modernization Program, 2035 With Project vs. 2014 Baseline Operations - Screening Analysis
- Lifetime Exposure (Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	3rd Trimester	Ages 0<2	Ages 2<9	Ages 2<16	Ages 16<30	Ages 16<70
Daily Breathing Rate (DBR)	361 L/kg-d	1090 L/kg-d	861 L/kg-d	745 L/kg-d	335 L/kg-d	290 L/kg-d
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m3/L	0.000001 m3/L	0.000001 m3/L	0.000001 m3/L	0.000001 m3/L	0.000001 m3/L
Age-adjustment (ASF)	10 unitless	10 unitless	3 unitless	1 unitless	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.00357 unitless	0.02857 unitless	0.10000 unitless	0.2 unitless	0.2 unitless	0.771 unitless
Fraction of Time at Home (FAH)	1.00 unitless	1.00 unitless	1.00 unitless	1 unitless	0.73 unitless	0.73 unitless
School Child 8-hr Daily Breathing Rate (DBR)		640 L/kg-d	520 L/kg-d	240 L/kg-d		
School Child Fraction of Time at Home (FAH)		1 unitless	1 unitless	1 unitless		

	Start Age	End Age
Child Resident	0	9 Year
School Child 9 yr	7	15 Year
School Child 12 yr	7	18 Year
30-year Resident	0	30 Year
70-year Resident	0	70 Year

Equations
Risk = Car*DBR*EF*CF*A*ASF*ED*FAH*CPF
HQ = Car / REL

Where: HQ = Hazard Quotient; Car = Exposure Concentration; DBR = Daily Breathing Rate; ASF = Age sensitivity factor; EF = Fraction of Year; ED = Fraction of Averaging time; A = Absorption Fraction; FAH = Fraction of Time at Home; CF = Conversion Factor; CPF = Cancer Potency Factor

	Toxicity Criteria					Cancer Risks					Hazard Quotients
TAC	Concentration at Location w/Maximum Risk (ug/m³)	EPA Inhalation CPF (mg/kg-day)⁻¹	CalEPA Inhalation CPF (mg/kg-day)⁻¹	EPA RfC (ug/m³)	CalEPA REL (ug/m³)	Cancer Risk to 9-year Child	Cancer Risk to 9-year School Child	Cancer Risk to 12-year School Child	Cancer Risk to 30-year Resident	Cancer Risk to 70-year Resident	Hazard Quotient Resident
1,2,4-trimethylbenzene	-1.44E-04	NA	NA	7.00E+00	NA	NC	NC	NC	NC	NC	-2.05E-05
1,3-butadiene	-7.80E-05	1.00E-01	6.00E-01	2.00E+00	2.00E+00	-2.62E-08	-9.79E-09	-1.10E-08	-3.68E-08	-4.20E-08	-3.90E-05
2,2,4-trimethylpentane	-3.19E-04	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
acetaldehyde	-2.08E-04	7.70E-03	1.00E-02	9.00E+00	1.40E+02	-1.16E-09	-4.33E-10	-4.88E-10	-1.63E-09	-1.86E-09	-1.48E-06
acrolein	-1.79E-05	NA	NA	2.00E-02	3.50E-01	NC	NC	NC	NC	NA	-5.03E-05
benzene	-3.81E-04	2.73E-02	1.00E-01	3.00E+01	3.00E+00	-2.13E-08	-7.89E-09	-8.95E-09	-2.95E-08	-3.41E-08	-1.27E-04
cumene	-2.06E-05	NA	NA	4.00E+02	NA	NC	NC	NC	NC	NC	-5.16E-09
cyclohexane	-8.40E-05	NA	NA	6.00E+03	NA	NC	NC	NC	NC	NC	-1.40E-08
ethylbenzene	-1.50E-04	8.70E-03	8.70E-03	1.00E+03	2.00E+03	-7.22E-10	-2.70E-10	-3.06E-10	-1.02E-09	-1.17E-09	-7.48E-08
ethylene	-1.19E-03	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
formaldehyde	-5.53E-04	4.55E-02	2.10E-02	9.80E+00	9.00E+00	-6.46E-09	-2.41E-09	-2.73E-09	-9.14E-09	-1.04E-08	-6.15E-05
hexane, n-isoprene, except from vegetative emission sources	-2.20E-04	NA	NA	7.00E+02	7.00E+03	NC	NC	NC	NC	NC	-3.14E-08
methyl alcohol	-1.92E-05	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	-1.67E-05	NA	NA	2.00E+04	4.00E+03	NC	NC	NC	NC	NC	-4.18E-09
methyl ethyl ketone	-3.73E-05	NA	NA	5.00E+03	NA	NC	NC	NC	NC	NC	-7.46E-09
naphthalene	-8.48E-06	1.19E-01	1.20E-01	3.00E+00	9.00E+00	-5.68E-10	-2.11E-10	-2.39E-10	-8.00E-10	-9.12E-10	-9.42E-07
propionaldehyde	-2.73E-05	NA	NA	8.00E+00	NA	NC	NC	NC	NC	NC	-3.39E-08
propylene	-4.75E-04	NA	NA	3.00E+03	3.00E+03	NC	NC	NC	NC	NC	-1.58E-07
styrene	-1.74E-05	NA	NA	1.00E+03	9.00E+02	NC	NC	NC	NC	NC	-1.93E-08
toluene	-8.14E-04	NA	NA	5.00E+03	3.00E+02	NC	NC	NC	NC	NC	-2.71E-06
xylene (total)	-6.76E-04	NA	NA	1.00E+02	7.00E+02	NC	NC	NC	NC	NC	-9.66E-07
aluminum	-1.47E+00	NA	NA	1.00E+02	2.00E+02	NC	NC	NC	NC	NC	-2.94E-01
ammonium ion	-4.00E-02	NA	NA	1.00E+02	2.00E+02	NC	NC	NC	NC	NC	-2.00E-04
antimony	-9.34E-04	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
arsenic	-2.36E-04	1.51E+01	1.20E+01	1.50E-02	1.50E-02	-1.58E-06	-5.88E-07	-6.65E-07	-2.23E-06	-2.54E-06	-1.57E-02
barium	-3.27E-01	NA	NA	5.00E-01	NA	NC	NC	NC	NC	NC	-6.54E-01
bromine	-4.22E-04	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
cadmium	-4.13E-05	6.30E+00	1.50E+01	1.00E-02	2.00E-02	-3.44E-07	-1.28E-07	-1.45E-07	-4.87E-07	-5.55E-07	-2.06E-03
chlorine	-2.69E-02	NA	NA	1.50E-01	2.00E-01	NC	NC	NC	NC	NC	-1.34E-01
chromium (VI)	-6.94E-03	4.20E+01	5.10E+02	1.00E-01	2.00E-01	-1.98E-03	-7.34E-04	-8.33E-04	-2.79E-03	-3.17E-03	-3.47E-02
cobalt	-3.22E-04	NA	NA	6.00E-03	NA	NC	NC	NC	NC	NC	-5.81E-02
copper	-6.86E-02	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
lead	-2.19E-03	NA	4.20E-02	NA	NA	-5.93E-08	-1.90E-08	-2.16E-08	-7.23E-08	-8.24E-08	NC
manganese	-2.09E-02	NA	NA	5.00E-02	9.00E-02	NC	NC	NC	NC	NC	-2.32E-01
mercury	-1.24E-04	NA	NA	3.00E-01	3.00E-02	NC	NC	NC	NC	NC	-4.12E-03
nickel	-4.02E-03	8.40E-01	9.10E-01	9.00E-02	1.40E-02	-2.05E-06	-7.58E-07	-8.61E-07	-2.88E-06	-3.28E-06	-2.87E-01
non-phosphate phosphorous	0.00E+00	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
phosphorus	-3.89E-02	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
selenium	-1.67E-04	NA	NA	2.00E+01	2.00E+01	NC	NC	NC	NC	NC	-8.35E-06
silicon	-4.56E+00	NA	NA	3.00E+00	3.00E+00	NC	NC	NC	NC	NC	-1.52E+00
silver	-4.97E-08	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
sulfates	-2.40E-01	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
thallium	-5.49E-05	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
vanadium	-4.76E-03	NA	NA	1.00E-01	NA	NC	NC	NC	NC	NC	-4.76E-02
zinc	-2.18E-02	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
Diesel PM	-5.46E-06	1.05E+00	1.10E+00	5.00E+00	5.00E+00	-3.36E-09	-1.24E-09	-1.41E-09	-4.73E-09	-5.39E-09	-1.09E-06
					TOTAL	**-1.98E-03**	**-7.39E-04**	**-8.34E-04**	**-2.79E-03**	**-3.18E-03**	**-3.28**

[1] Residential Maximum Grid No. 655

NA = Not Available; ug/m³ = micrograms per cubic meter
NC = Not Calculated; mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2016

Table 1-9.1
2035 OEHHA Risk Calculation for LAX Landside Access Modernization Program, 2035 Without Project vs. 2014 Baseline Operations - Screening Analysis
- Lifetime Exposure (Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	3rd Trimester	Ages 0<2	Ages 2<9	Ages 2<16	Ages 16<30	Ages 16<70
Daily Breathing Rate (DBR)	361 L/kg-d	1090 L/kg-d	861 L/kg-d	745 L/kg-d	335 L/kg-d	290 L/kg-d
Fraction of Year (EF)	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless	0.96 unitless
Absorption Fraction (A)	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m3/L	0.000001 m3/L	0.000001 m3/L	0.000001 m3/L	0.000001 m3/L	0.000001 m3/L
Age-adjustment (ASF)	10 unitless	10 unitless	3 unitless	1 unitless	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.00357 unitless	0.02857 unitless	0.10000 unitless	0.2 unitless	0.2 unitless	0.771 unitless
Fraction of Time at Home (FAH)	1.00 unitless	1.00 unitless	1.00 unitless	1 unitless	0.73 unitless	0.73 unitless
School Child 8-hr Daily Breathing Rate (DBR)		640 L/kg-d	520 L/kg-d	240 L/kg-d		
School Child Fraction of Time at Home (FAH)		1 unitless	1 unitless	1 unitless		

	Start Age	End Age
Child Resident	0	9 Year
School Child 9 yr	7	15 Year
School Child 12 yr	7	18 Year
30-year Resident	0	30 Year
70-year Resident	0	70 Year

Equations
Risk = Car*DBR*EF*CF*A*ASF*ED*FAH*CPF
HQ = Car / REL

Where: HQ = Hazard Quotient; Car = Exposure Concentration; DBR = Daily Breathing Rate; ASF = Age sensitivity factor; EF = Fraction of Year; ED = Fraction of Averaging time; A = Absorption Fraction; FAH = Fraction of Time at Home; CF = Conversion Factor; CPF = Cancer Potency Factor

	Toxicity Criteria					Cancer Risks					Hazard Quotients
TAC	Concentration at Location w/Maximum Risk (ug/m³)	EPA Inhalation CPF (mg/kg-day)⁻¹	CalEPA Inhalation CPF (mg/kg-day)⁻¹	EPA RfC (ug/m³)	CalEPA REL (ug/m³)	Cancer Risk to 9-year Child	Cancer Risk to 9-year School Child	Cancer Risk to 12-year School Child	Cancer Risk to 30-year Resident	Cancer Risk to 70-year Resident	Hazard Quotient Resident
1,2,4-trimethylbenzene	-1.58E-04	NA	NA	7.00E+00	NA	NC	NC	NC	NC	NC	-2.25E-05
1,3-butadiene	-8.58E-05	1.09E-01	6.00E-01	2.00E+00	2.00E+00	-2.88E-08	-1.07E-08	-1.21E-08	-4.05E-08	-4.61E-08	-4.29E-05
2,2,4-trimethylpentane	-3.51E-04	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
acetaldehyde	-2.29E-04	7.70E-03	1.00E-02	9.00E+00	1.40E+02	-1.28E-09	-4.77E-10	-5.37E-10	-1.79E-09	-2.04E-09	-1.63E-06
acrolein	-1.94E-05	NA	NA	2.00E-02	3.50E-01	NC	NC	NC	NC	NA	-5.54E-05
benzene	-4.18E-04	2.73E-02	1.00E-01	3.00E+01	3.00E+00	-2.34E-08	-8.66E-09	-9.83E-09	-3.26E-08	-3.73E-08	-1.39E-04
cumene	-2.26E-05	NA	NA	4.00E+02	NA	NC	NC	NC	NC	NC	-5.65E-09
cyclohexane	-9.24E-05	NA	NA	6.00E+03	NA	NC	NC	NC	NC	NC	-1.54E-08
ethylbenzene	-1.65E-04	8.70E-03	8.70E-03	1.00E+03	2.00E+03	-7.95E-10	-2.97E-10	-3.37E-10	-1.12E-09	-1.28E-09	-8.23E-08
ethylene	-1.31E-03	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
formaldehyde	-6.03E-04	4.55E-02	2.10E-02	9.80E+00	9.00E+00	-7.07E-09	-2.62E-09	-2.98E-09	-9.98E-09	-1.13E-08	-6.71E-05
hexane, n-isoprene, except from vegetative emission sources	-2.41E-04	NA	NA	7.00E+02	7.00E+03	NC	NC	NC	NC	NC	-3.45E-08
methyl alcohol	-2.11E-05	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	-1.84E-05	NA	NA	2.00E+04	4.00E+03	NC	NC	NC	NC	NC	-4.59E-09
methyl ethyl ketone	-4.04E-05	NA	NA	5.00E+03	NA	NC	NC	NC	NC	NC	-8.08E-09
naphthalene	-9.29E-06	1.19E-01	1.20E-01	3.00E+00	9.00E+00	-6.23E-10	-2.31E-10	-2.62E-10	-8.77E-10	-9.99E-10	-1.03E-06
propionaldehyde	-2.99E-05	NA	NA	8.00E+00	NA	NC	NC	NC	NC	NC	-3.89E-08
propylene	-5.21E-04	NA	NA	3.00E+03	3.00E+03	NC	NC	NC	NC	NC	-1.74E-07
styrene	-1.91E-05	NA	NA	1.00E+03	9.00E+02	NC	NC	NC	NC	NC	-2.12E-08
toluene	-8.95E-04	NA	NA	5.00E+03	3.00E+02	NC	NC	NC	NC	NC	-2.98E-06
xylene (total)	-7.43E-04	NA	NA	1.00E+02	7.00E+02	NC	NC	NC	NC	NC	-1.06E-06
aluminum	-1.57E+00	NA	NA	1.00E+02	2.00E+02	NC	NC	NC	NC	NC	-3.14E-01
ammonium ion	-4.28E-02	NA	NA	1.00E+02	2.00E+02	NC	NC	NC	NC	NC	-2.14E-04
antimony	-1.00E-03	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
arsenic	-2.52E-04	1.51E+01	1.20E+01	1.50E-02	1.50E-02	-1.69E-06	-6.28E-07	-7.11E-07	-2.38E-06	-2.71E-06	-1.68E-02
barium	-3.49E-01	NA	NA	5.00E-01	NA	NC	NC	NC	NC	NC	-6.98E-01
bromine	-4.50E-04	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
cadmium	-4.42E-05	6.30E+00	1.50E+01	1.00E-02	2.00E-02	-3.70E-07	-1.37E-07	-1.56E-07	-5.21E-07	-5.94E-07	-2.21E-03
chlorine	-2.87E-02	NA	NA	1.50E-01	2.00E-01	NC	NC	NC	NC	NC	-1.43E-01
chromium (VI)	-7.39E-03	4.20E+01	5.10E+02	1.00E-01	2.00E-01	-2.09E-03	-7.76E-04	-8.81E-04	-2.95E-03	-3.36E-03	-3.69E-02
cobalt	-3.44E-04	NA	NA	6.00E-03	NA	NC	NC	NC	NC	NC	-5.81E-02
copper	-7.26E-02	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
lead	-2.34E-03	NA	4.20E-02	NA	NA	-5.49E-08	-2.03E-08	-2.31E-08	-7.72E-08	-8.80E-08	NC
manganese	-2.22E-02	NA	NA	5.00E-02	9.00E-02	NC	NC	NC	NC	NC	-2.47E-01
mercury	-1.32E-04	NA	NA	3.00E-01	3.00E-02	NC	NC	NC	NC	NC	-4.41E-03
nickel	-4.28E-03	8.40E-01	9.10E-01	9.00E-02	1.40E-02	-2.17E-06	-8.03E-07	-9.12E-07	-3.05E-06	-3.48E-06	-3.04E-01
non-phosphate phosphorous	0.00E+00	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
phosphorus	-4.17E-02	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
selenium	-1.77E-04	NA	NA	2.00E+01	2.00E+01	NC	NC	NC	NC	NC	-8.86E-06
silicon	-4.83E+00	NA	NA	3.00E+00	3.00E+00	NC	NC	NC	NC	NC	-1.61E+00
silver	-5.46E-08	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
sulfates	-2.55E-01	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
thallium	-5.88E-05	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
vanadium	-5.05E-03	NA	NA	1.00E-01	NA	NC	NC	NC	NC	NC	-5.05E-02
zinc	-2.32E-02	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC
Diesel PM	-4.77E-06	1.05E+00	1.10E+00	5.00E+00	5.00E+00	-2.93E-09	-1.09E-09	-1.23E-09	-4.12E-09	-4.70E-09	-9.53E-07
					TOTAL	**-2.10E-03**	**-7.78E-04**	**-8.83E-04**	**-2.95E-03**	**-3.37E-03**	**-3.50**

[1] Residential Maximum Grid No. 655

NA = Not Available; ug/m³ = micrograms per cubic meter
NC = Not Calculated; mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2016

Table 1-10.2
2035 OEHHA Risk Calculation for LAX Landside Access Modernization Program, 2035 With Project vs. 2014 Baseline Operations - Screening Analysis
- Lifetime Exposure (Based on Peak Location of Commercial Cancer Risks[1])

Exposure Parameters	Ages 16<30	Ages 16<70
Worker 8-hr Daily Breathing Rate (DBR)	240 L/kg-d	230 L/kg-d
Fraction of Year (EF)	0.68 unitless	0.68 unitless
Absorption Fraction (A)	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m3/L	0.000001 m3/L
Age-adjustment (ASF)	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.21 unitless	0.143 unitless
Worker Adjustment Factor (WAH)	1 unitless	1 unitless

	Start Age	End Age
Worker	16	41 Year

Equations
Risk = Car*DBR*EF*CF*A*ASF*ED*FAH*CPF
HQ = Car / REL

Where: HQ = Hazard Quotient; Car = Exposure Concentration; DBR = Daily Breathing Rate; ASF = Age sensitivity factor; EF = Fraction of Year; ED = Fraction of Averaging time; A = Absorption Fraction; FAH = Fraction of Time at Home; CF = Conversion Factor; CPF = Cancer Potency Factor

	Toxicity Criteria					Cancer Risks	Hazard Quotients
TAC	Concentration at Location w/Maximum Risk (ug/m³)	EPA Inhalation CPF (mg/kg-day)⁻¹	CalEPA Inhalation CPF (mg/kg-day)⁻¹	EPA RfC (ug/m³)	CalEPA REL (ug/m³)	Cancer Risk to Worker	Hazard Quotient Worker
1,2,4-trimethylbenzene	-1.44E-04	NA	NA	7.00E+00	NA	NC	-2.05E-05
1,3-butadiene	-7.80E-05	1.00E-01	6.00E-01	2.00E+00	2.00E+00	-2.70E-09	-3.90E-05
2,2,4-trimethylpentane	-3.19E-04	NA	NA	NA	NA	NC	NC
acetaldehyde	-2.08E-04	7.70E-03	1.00E-02	9.00E+00	1.40E+02	-1.20E-10	-1.48E-06
acrolein	-1.79E-05	NA	NA	2.00E-02	3.50E-01	NC	-5.03E-05
benzene	-3.81E-04	2.73E-02	1.00E-01	3.00E+01	3.00E+00	-2.20E-09	-1.27E-04
cumene	-2.06E-05	NA	NA	4.00E+02	NA	NC	-5.16E-09
cyclohexane	-8.40E-05	NA	NA	6.00E+03	NA	NC	-1.40E-08
ethylbenzene	-1.50E-04	8.70E-03	8.70E-03	1.00E+03	2.00E+03	-7.52E-11	-7.48E-08
ethylene	-1.19E-03	NA	NA	NA	NA	NC	NC
formaldehyde	-5.53E-04	4.55E-02	2.10E-02	9.80E+00	9.00E+00	-6.71E-10	-6.15E-05
hexane, n-isoprene, except from vegetative emission sources	-2.20E-04	NA	NA	7.00E+02	7.00E+03	NC	-3.14E-08
methyl alcohol	-1.92E-05	NA	NA	NA	NA	NC	NC
methyl ethyl ketone	-1.67E-05	NA	NA	2.00E+04	4.00E+03	NC	-4.18E-09
naphthalene	-3.73E-05	NA	NA	5.00E+03	NA	NC	-7.46E-09
propionaldehyde	-8.48E-06	1.19E-01	1.20E-01	3.00E+00	9.00E+00	-5.87E-11	-9.42E-07
propylene	-2.73E-05	NA	NA	8.00E+00	NA	NC	-3.39E-08
styrene	-4.75E-04	NA	NA	3.00E+03	3.00E+03	NC	-1.58E-07
toluene	-1.74E-05	NA	NA	1.00E+03	9.00E+02	NC	-1.93E-08
xylene (total)	-8.14E-04	NA	NA	5.00E+03	3.00E+02	NC	-2.71E-06
aluminum	-6.76E-04	NA	NA	1.00E+02	7.00E+02	NC	-9.66E-07
ammonium ion	-1.47E+00	NA	NA	1.00E+02	2.00E+02	NC	-2.94E-01
antimony	-4.00E-02	NA	NA	1.00E+02	2.00E+02	NC	-2.00E-04
arsenic	-9.34E-04	NA	NA	NA	NA	NC	NC
barium	-2.36E-04	1.51E+01	1.20E+01	1.50E-02	1.50E-02	-1.63E-07	-1.57E-02
bromine	-3.27E-01	NA	NA	5.00E-01	NA	NC	-6.54E-01
cadmium	-4.22E-04	NA	NA	NA	NA	NC	NC
chlorine	-4.13E-05	6.30E+00	1.50E+01	1.00E-02	2.00E-02	-3.57E-08	-2.06E-03
chromium (VI)	-2.69E-02	NA	NA	1.50E-01	2.00E-01	NC	-1.34E-01
cobalt	-6.94E-03	4.20E+01	5.10E+02	1.00E-01	2.00E-01	-2.04E-04	-3.47E-02
copper	-3.22E-04	NA	NA	6.00E-03	NA	NC	-5.41E-02
lead	-6.86E-02	NA	NA	NA	NA	NC	NC
manganese	-2.19E-03	NA	4.20E-02	NA	NA	-5.31E-09	NC
mercury	-2.09E-02	NA	NA	5.00E-02	9.00E-02	NC	-2.32E-01
nickel	-1.24E-04	NA	NA	3.00E-01	3.00E-02	NC	-4.12E-03
non-phosphate phosphorous	-4.02E-03	8.40E-01	9.10E-01	9.00E-02	1.40E-02	-2.11E-07	-2.87E-01
phosphorus	0.00E+00	NA	NA	NA	NA	NC	NC
selenium	-3.89E-02	NA	NA	NA	NA	NC	NC
silicon	-1.67E-04	NA	NA	2.00E+01	2.00E+01	NC	-8.35E-06
silver	-4.56E+00	NA	NA	3.00E+00	3.00E+00	NC	-1.52E+00
sulfates	-4.97E-08	NA	NA	NA	NA	NC	NC
thallium	-2.40E-01	NA	NA	NA	NA	NC	NC
vanadium	-5.49E-05	NA	NA	NA	NA	NC	NC
zinc	-4.76E-03	NA	NA	1.00E-01	NA	NC	-4.76E-02
Diesel PM	-2.18E-02	NA	NA	NA	NA	NC	NC
	-5.46E-06	1.05E+00	1.10E+00	5.00E+00	5.00E+00	-3.47E-10	-1.09E-06
					TOTAL	**-2.05E-04**	**-3.28**

[1] Commercial Maximum Grid No. 655

NA = Not Available; ug/m³ = micrograms per cubic meter
NC = Not Calculated; mg/kg-d = milligrams per kilogram day

Source: CDM Smith, 2016

Table 1-9.2
2035 OEHHA Risk Calculation for LAX Landside Access Modernization Program, 2035 Without Project vs. 2014 Baseline Operations - Screening Analysis
- Lifetime Exposure (Based on Peak Location of Commercial Cancer Risks[1])

Exposure Parameters	Ages 16<30	Ages 16<70
Worker 8-hr Daily Breathing Rate (DBR)	240 L/kg-d	230 L/kg-d
Fraction of Year (EF)	0.68 unitless	0.68 unitless
Absorption Fraction (A)	1 unitless	1 unitless
Conversion Factor (CF)	0.000001 m3/L	0.000001 m3/L
Age-adjustment (ASF)	1 unitless	1 unitless
Fraction of Averaging Time (ED)	0.21 unitless	0.143 unitless
Worker Adjustment Factor (WAH)	1 unitless	1 unitless

	Start Age	End Age
Worker	16	41 Year

Equations
Risk = Car*DBR*EF*CF*A*ASF*ED*FAH*CPF
HQ = Car / REL

Where: HQ = Hazard Quotient; Car = Exposure Concentration; DBR = Daily Breathing Rate; ASF = Age sensitivity factor; EF = Fraction of Year; ED = Fraction of Averaging time; A = Absorption Fraction; FAH = Fraction of Time at Home; CF = Conversion Factor; CPF = Cancer Potency Factor

	Toxicity Criteria					Cancer Risks	Hazard Quotients
TAC	Concentration at Location w/Maximum Risk (ug/m³)	EPA Inhalation CPF (mg/kg-day)⁻¹	CalEPA Inhalation CPF (mg/kg-day)⁻¹	EPA RfC (ug/m³)	CalEPA REL (ug/m³)	Cancer Risk to Worker	Hazard Quotient Worker
1,2,4-trimethylbenzene	-1.58E-04	NA	NA	7.00E+00	NA	NC	-2.25E-05
1,3-butadiene	-8.58E-05	1.09E-01	6.00E-01	2.00E+00	2.00E+00	-2.97E-09	-4.29E-05
2,2,4-trimethylpentane	-3.51E-04	NA	NA	NA	NA	NC	NC
acetaldehyde	-2.29E-04	7.70E-03	1.00E-02	9.00E+00	1.40E+02	-1.32E-10	-1.61E-06
acrolein	-1.94E-05	NA	NA	2.00E-02	3.50E-01	NC	-5.54E-05
benzene	-4.18E-04	2.73E-02	1.00E-01	3.00E+01	3.00E+00	-2.41E-09	-1.39E-04
cumene	-2.26E-05	NA	NA	4.00E+02	NA	NC	-5.65E-09
cyclohexane	-9.24E-05	NA	NA	6.00E+03	NA	NC	-1.54E-08
ethylbenzene	-1.65E-04	8.70E-03	8.70E-03	1.00E+03	2.00E+03	-8.25E-11	-8.23E-08
ethylene	-1.31E-03	NA	NA	NA	NA	NC	NC
formaldehyde	-6.03E-04	4.55E-02	2.10E-02	9.80E+00	9.00E+00	-7.31E-10	-6.70E-05
hexane, n-isoprene, except from vegetative emission sources	-2.41E-04	NA	NA	7.00E+02	7.00E+03	NC	-3.45E-08
methyl alcohol	-2.11E-05	NA	NA	NA	NA	NC	NC
methyl ethyl ketone	-1.84E-05	NA	NA	2.00E+04	4.00E+03	NC	-4.59E-09
methyl ethyl ketone	-4.04E-05	NA	NA	5.00E+03	NA	NC	-8.08E-09
naphthalene	-9.29E-06	1.19E-01	1.20E-01	3.00E+00	9.00E+00	-6.44E-11	-1.03E-06
propionaldehyde	-2.95E-05	NA	NA	8.00E+00	NA	NC	-3.68E-06
propylene	-5.21E-04	NA	NA	3.00E+03	3.00E+03	NC	-1.74E-07
styrene	-1.91E-05	NA	NA	1.00E+03	9.00E+02	NC	-2.12E-08
toluene	-8.95E-04	NA	NA	5.00E+03	3.00E+02	NC	-2.98E-06
xylene (total)	-7.43E-04	NA	NA	1.00E+02	7.00E+02	NC	-1.06E-06
aluminum	-1.57E+00	NA	NA	1.00E+02	2.00E+02	NC	-3.14E-01
ammonium ion	-4.28E-02	NA	NA	1.00E+02	2.00E+02	NC	-2.14E-04
antimony	-1.00E-03	NA	NA	NA	NA	NC	NC
arsenic	-2.52E-04	1.51E+01	1.20E+01	1.50E-02	1.50E-02	-1.75E-07	-1.68E-02
barium	-3.49E-01	NA	NA	5.00E-01	NA	NC	-6.98E-01
bromine	-4.50E-04	NA	NA	NA	NA	NC	NC
cadmium	-4.42E-05	6.30E+00	1.50E+01	1.00E-02	2.00E-02	-3.83E-08	-2.21E-03
chlorine	-2.87E-02	NA	NA	1.50E-01	2.00E-01	NC	-1.43E-01
chromium (VI)	-7.39E-03	4.20E+01	5.10E+02	1.00E-01	2.00E-01	-2.16E-04	-3.69E-02
cobalt	-3.44E-04	NA	NA	6.00E-03	NA	NC	-5.81E-02
copper	-7.26E-02	NA	NA	NA	NA	NC	NC
lead	-2.34E-03	NA	4.20E-02	NA	NA	-5.67E-09	NC
manganese	-2.22E-02	NA	NA	5.00E-02	9.00E-02	NC	-2.47E-01
mercury	-1.32E-04	NA	NA	3.00E-01	3.00E-02	NC	-4.41E-03
nickel	-4.28E-03	8.40E-01	9.10E-01	9.00E-02	1.40E-02	-2.24E-07	-3.04E-01
non-phosphate phosphorous	0.00E+00	NA	NA	NA	NA	NC	NC
phosphorus	-4.17E-02	NA	NA	NA	NA	NC	NC
selenium	-1.77E-04	NA	NA	2.00E+01	2.00E+01	NC	-8.86E-06
silicon	-4.88E+00	NA	NA	3.00E+00	3.00E+00	NC	-1.63E+00
silver	-5.46E-08	NA	NA	NA	NA	NC	NC
sulfates	-2.55E-01	NA	NA	NA	NA	NC	NC
thallium	-5.88E-05	NA	NA	NA	NA	NC	NC
vanadium	-5.05E-03	NA	NA	1.00E-01	NA	NC	-5.05E-02
zinc	-2.32E-02	NA	NA	NA	NA	NC	NC
Di

Population-Wide Risks (Cancer Burden)

Construction
1-11 Unmitigated

Construction
1-12 Mitigated

Operation
1-13 2024 With Project vs. 2024 Without Project

Operation
1-14 2035 With Project vs. 2035 Without Project

CDM Smith
Published in 2016

Table 1-11. Residential Cancer Burden for Unmitigated Construction, 2017-2027, and Operations During Construction, 2024-2086

BKGPIDFP00	Census tract [1]	Estimated 2016 Population [2]	70-year Resident 2017-2086 Cancer Risk [3]	Cancer Burden by Census Tract and Block	Cancer Burden for >= 1E-04 Zone	Cancer Burden for >= 1E-05 Zone	Cancer Burden for >= 1E-06 Zone	Cancer Burden for >= 1E-07 Zone
			Total Cancer Burden [4]	0.2	0.0	0.02	0.1	0.2
060372267001	2267	1915	1.48E-07	2.83E-04	0.00E+00	0.00E+00	0.00E+00	2.83E-04
060372281001	2281	1312	1.62E-07	2.13E-04	0.00E+00	0.00E+00	0.00E+00	2.13E-04
060372281002	2281	2388	2.22E-07	5.30E-04	0.00E+00	0.00E+00	0.00E+00	5.30E-04
060372284103	2284.1	1689	1.25E-07	2.11E-04	0.00E+00	0.00E+00	0.00E+00	2.11E-04
060372285001	2285	2091	1.95E-07	4.07E-04	0.00E+00	0.00E+00	0.00E+00	4.07E-04
060372286001	2286	3004	2.11E-07	6.34E-04	0.00E+00	0.00E+00	0.00E+00	6.34E-04
060372288003	2288	1945	3.13E-07	6.09E-04	0.00E+00	0.00E+00	0.00E+00	6.09E-04
060372292001	2292	1736	3.07E-07	5.33E-04	0.00E+00	0.00E+00	0.00E+00	5.33E-04
060372293001	2293	2631	2.89E-07	7.60E-04	0.00E+00	0.00E+00	0.00E+00	7.60E-04
060372311001	2311	833	4.14E-08	3.45E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372313001	2313	2708	8.82E-08	2.39E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372314001	2314	1780	5.54E-08	9.85E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372314002	2314	1460	5.99E-08	8.74E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372315002	2315	1725	1.40E-07	2.42E-04	0.00E+00	0.00E+00	0.00E+00	2.42E-04
060372316003	2316	1483	1.52E-07	2.25E-04	0.00E+00	0.00E+00	0.00E+00	2.25E-04
060372317103	2317.1	1780	1.52E-07	2.70E-04	0.00E+00	0.00E+00	0.00E+00	2.70E-04
060372318003	2318	1035	1.20E-07	1.24E-04	0.00E+00	0.00E+00	0.00E+00	1.24E-04
060372319002	2319	3368	2.19E-07	7.39E-04	0.00E+00	0.00E+00	0.00E+00	7.39E-04
060372321102	2321.1	1896	2.35E-07	4.46E-04	0.00E+00	0.00E+00	0.00E+00	4.46E-04
060372323002	2323	1303	2.25E-07	2.93E-04	0.00E+00	0.00E+00	0.00E+00	2.93E-04
060372324003	2324	1485	2.26E-07	3.35E-04	0.00E+00	0.00E+00	0.00E+00	3.35E-04
060372340002	2340	672	7.60E-08	5.11E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372340004	2340	871	1.17E-07	1.02E-04	0.00E+00	0.00E+00	0.00E+00	1.02E-04
060372340005	2340	1171	3.61E-08	4.23E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372342002	2342	638	4.11E-08	2.62E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372343004	2343	1047	7.08E-08	7.41E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372345012	2345.01	1478	1.97E-07	2.91E-04	0.00E+00	0.00E+00	0.00E+00	2.91E-04
060372346001	2346	1538	2.37E-07	3.65E-04	0.00E+00	0.00E+00	0.00E+00	3.65E-04
060372346004	2346	1670	2.12E-07	3.55E-04	0.00E+00	0.00E+00	0.00E+00	3.55E-04
060372347001	2347	842	3.62E-07	3.05E-04	0.00E+00	0.00E+00	0.00E+00	3.05E-04
060372347002	2347	800	3.41E-07	2.73E-04	0.00E+00	0.00E+00	0.00E+00	2.73E-04
060372347003	2347	1582	2.95E-07	4.67E-04	0.00E+00	0.00E+00	0.00E+00	4.67E-04
060372349011	2349.01	1311	4.89E-07	6.42E-04	0.00E+00	0.00E+00	0.00E+00	6.42E-04
060372351001	2351	1322	2.02E-07	2.66E-04	0.00E+00	0.00E+00	0.00E+00	2.66E-04
060372352011	2352.01	951	7.04E-07	6.69E-04	0.00E+00	0.00E+00	0.00E+00	6.69E-04
060372352013	2352.01	1121	6.81E-07	7.63E-04	0.00E+00	0.00E+00	0.00E+00	7.63E-04
060372352021	2352.02	2509	5.74E-07	1.44E-03	0.00E+00	0.00E+00	0.00E+00	1.44E-03
060372352023	2352.02	885	1.11E-06	9.83E-04	0.00E+00	0.00E+00	9.83E-04	9.83E-04
060372360002	2360	1139	4.48E-08	5.10E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372361004	2361	1580	7.36E-08	1.16E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372362021	2362.02	2903	-3.23E-08	-9.36E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372362031	2362.03	2473	6.45E-08	1.59E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372362041	2362.04	2080	6.44E-08	1.34E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372364001	2364	1499	5.37E-08	8.05E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372364002	2364	1526	-4.41E-08	-6.74E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372371013	2371.01	296	4.18E-07	1.24E-04	0.00E+00	0.00E+00	0.00E+00	1.24E-04
060372372011	2372.01	1345	4.10E-07	5.51E-04	0.00E+00	0.00E+00	0.00E+00	5.51E-04
060372373002	2373	1094	6.68E-07	7.30E-04	0.00E+00	0.00E+00	0.00E+00	7.30E-04
060372373004	2373	1115	7.29E-07	8.12E-04	0.00E+00	0.00E+00	0.00E+00	8.12E-04
060372374022	2374.02	1249	6.60E-07	8.24E-04	0.00E+00	0.00E+00	0.00E+00	8.24E-04
060372375001	2375	2073	6.07E-07	1.26E-03	0.00E+00	0.00E+00	0.00E+00	1.26E-03
060372377201	2377.2	828	6.66E-07	5.52E-04	0.00E+00	0.00E+00	0.00E+00	5.52E-04
060372378003	2378	850	8.05E-07	6.84E-04	0.00E+00	0.00E+00	0.00E+00	6.84E-04
060372379002	2379	1126	9.62E-07	1.08E-03	0.00E+00	0.00E+00	0.00E+00	1.08E-03
060372379004	2379	867	9.26E-07	8.02E-04	0.00E+00	0.00E+00	0.00E+00	8.02E-04
060372380004	2380	1020	5.56E-07	5.68E-04	0.00E+00	0.00E+00	0.00E+00	5.68E-04
060372380005	2380	1147	4.27E-07	4.90E-04	0.00E+00	0.00E+00	0.00E+00	4.90E-04
060372380006	2380	1171	2.22E-07	2.60E-04	0.00E+00	0.00E+00	0.00E+00	2.60E-04
060372381002	2381	1423	1.03E-06	1.47E-03	0.00E+00	0.00E+00	1.47E-03	1.47E-03
060372383201	2383.2	1879	6.49E-07	1.22E-03	0.00E+00	0.00E+00	0.00E+00	1.22E-03
060372392013	2392.01	922	3.62E-07	3.34E-04	0.00E+00	0.00E+00	0.00E+00	3.34E-04

Table 1-11. Residential Cancer Burden for Unmitigated Construction, 2017-2027, and Operations During Construction, 2024-2086

BKGPIDFP00	Census tract [1]	Estimated 2016 Population [2]	70-year Resident 2017-2086 Cancer Risk [3]	Cancer Burden by Census Tract and Block	Cancer Burden for >= 1E-04 Zone	Cancer Burden for >= 1E-05 Zone	Cancer Burden for >= 1E-06 Zone	Cancer Burden for >= 1E-07 Zone
060372392021	2392.02	2499	4.18E-07	1.04E-03	0.00E+00	0.00E+00	0.00E+00	1.04E-03
060372393101	2393.1	1439	4.90E-07	7.05E-04	0.00E+00	0.00E+00	0.00E+00	7.05E-04
060372393302	2393.3	1736	4.89E-07	8.49E-04	0.00E+00	0.00E+00	0.00E+00	8.49E-04
060372395022	2395.02	903	4.83E-07	4.36E-04	0.00E+00	0.00E+00	0.00E+00	4.36E-04
060372396022	2396.02	1869	5.09E-07	9.51E-04	0.00E+00	0.00E+00	0.00E+00	9.51E-04
060372398022	2398.02	1339	3.91E-07	5.23E-04	0.00E+00	0.00E+00	0.00E+00	5.23E-04
060372404012	2404.01	2214	3.50E-07	7.76E-04	0.00E+00	0.00E+00	0.00E+00	7.76E-04
060372405003	2405	1369	1.34E-07	1.84E-04	0.00E+00	0.00E+00	0.00E+00	1.84E-04
060372405004	2405	1379	1.72E-07	2.37E-04	0.00E+00	0.00E+00	0.00E+00	2.37E-04
060372406001	2406	1040	2.48E-07	2.59E-04	0.00E+00	0.00E+00	0.00E+00	2.59E-04
060372406002	2406	1092	1.40E-07	1.52E-04	0.00E+00	0.00E+00	0.00E+00	1.52E-04
060372407001	2407	1361	1.30E-07	1.77E-04	0.00E+00	0.00E+00	0.00E+00	1.77E-04
060372407003	2407	1669	2.25E-07	3.75E-04	0.00E+00	0.00E+00	0.00E+00	3.75E-04
060372409002	2409	2003	5.97E-08	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372409004	2409	896	2.81E-08	2.52E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372410021	2410.02	1576	4.50E-08	7.10E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372410022	2410.02	1068	6.25E-08	6.67E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372411201	2411.2	1281	-3.79E-08	-4.85E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372412011	2412.01	1191	1.49E-07	1.78E-04	0.00E+00	0.00E+00	0.00E+00	1.78E-04
060372412021	2412.02	1100	-1.92E-08	-2.11E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372413002	2413	1370	-3.23E-08	-4.43E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372414002	2414	2010	-1.35E-08	-2.71E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372423001	2423	2628	2.00E-07	5.26E-04	0.00E+00	0.00E+00	0.00E+00	5.26E-04
060372427004	2427	1357	7.26E-08	9.85E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372427005	2427	701	1.20E-07	8.45E-05	0.00E+00	0.00E+00	0.00E+00	8.45E-05
060372714001	2714	673	7.75E-08	5.22E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372715002	2715	654	7.05E-08	4.61E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372718012	2718.01	2164	-2.41E-08	-5.21E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372719011	2719.01	1113	-1.54E-07	-1.72E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372719021	2719.02	771	7.29E-08	5.63E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372721003	2721	856	1.31E-07	1.12E-04	0.00E+00	0.00E+00	0.00E+00	1.12E-04
060372721005	2721	755	1.48E-07	1.12E-04	0.00E+00	0.00E+00	0.00E+00	1.12E-04
060372722021	2722.02	1086	1.80E-07	1.95E-04	0.00E+00	0.00E+00	0.00E+00	1.95E-04
060372723021	2723.02	2285	1.11E-07	2.55E-04	0.00E+00	0.00E+00	0.00E+00	2.55E-04
060372738001	2738	1666	1.70E-07	2.83E-04	0.00E+00	0.00E+00	0.00E+00	2.83E-04
060372751021	2751.02	3444	6.20E-08	2.13E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372752001	2752	1390	1.18E-07	1.64E-04	0.00E+00	0.00E+00	0.00E+00	1.64E-04
060372753021	2753.02	828	2.33E-07	1.93E-04	0.00E+00	0.00E+00	0.00E+00	1.93E-04
060372753111	2753.11	1113	1.58E-07	1.76E-04	0.00E+00	0.00E+00	0.00E+00	1.76E-04
060372753113	2753.11	1263	1.91E-07	2.41E-04	0.00E+00	0.00E+00	0.00E+00	2.41E-04
060372753114	2753.11	1556	2.04E-07	3.18E-04	0.00E+00	0.00E+00	0.00E+00	3.18E-04
060372754001	2754	1193	1.97E-07	2.35E-04	0.00E+00	0.00E+00	0.00E+00	2.35E-04
060372755001	2755	766	1.10E-07	8.41E-05	0.00E+00	0.00E+00	0.00E+00	8.41E-05
060372755002	2755	848	1.36E-07	1.16E-04	0.00E+00	0.00E+00	0.00E+00	1.16E-04
060372756021	2756.02	6771	2.68E-07	1.81E-03	0.00E+00	0.00E+00	0.00E+00	1.81E-03
060372756033	2756.03	1259	1.87E-07	2.36E-04	0.00E+00	0.00E+00	0.00E+00	2.36E-04
060372760003	2760	1340	6.88E-07	9.21E-04	0.00E+00	0.00E+00	0.00E+00	9.21E-04
060372760004	2760	1254	5.17E-07	6.48E-04	0.00E+00	0.00E+00	0.00E+00	6.48E-04
060372764002	2764	964	5.28E-07	5.09E-04	0.00E+00	0.00E+00	0.00E+00	5.09E-04
060372764003	2764	883	7.53E-07	6.65E-04	0.00E+00	0.00E+00	0.00E+00	6.65E-04
060372764004	2764	807	8.82E-07	7.12E-04	0.00E+00	0.00E+00	0.00E+00	7.12E-04
060372765001	2765	3388	7.17E-07	2.43E-03	0.00E+00	0.00E+00	0.00E+00	2.43E-03
060372765002	2765	1911	5.31E-07	1.02E-03	0.00E+00	0.00E+00	0.00E+00	1.02E-03
060372766014	2766.01	1025	9.52E-07	9.75E-04	0.00E+00	0.00E+00	0.00E+00	9.75E-04
060372766031	2766.03	2122	1.43E-06	3.04E-03	0.00E+00	0.00E+00	3.04E-03	3.04E-03
060372766032	2766.03	3374	1.44E-06	4.86E-03	0.00E+00	0.00E+00	4.86E-03	4.86E-03
060372766041	2766.04	2256	2.20E-06	4.95E-03	0.00E+00	0.00E+00	4.95E-03	4.95E-03
060372766042	2766.04	1912	1.28E-06	2.45E-03	0.00E+00	0.00E+00	2.45E-03	2.45E-03
060372770001	2770	1266	2.34E-07	2.96E-04	0.00E+00	0.00E+00	0.00E+00	2.96E-04
060372770003	2770	1369	3.37E-07	4.61E-04	0.00E+00	0.00E+00	0.00E+00	4.61E-04
060372770004	2770	768	1.39E-07	1.07E-04	0.00E+00	0.00E+00	0.00E+00	1.07E-04
060372770005	2770	1050	1.48E-07	1.56E-04	0.00E+00	0.00E+00	0.00E+00	1.56E-04
060372771001	2771	995	6.78E-07	6.75E-04	0.00E+00	0.00E+00	0.00E+00	6.75E-04

Table 1-11. Residential Cancer Burden for Unmitigated Construction, 2017-2027, and Operations During Construction, 2024-2086

BKGPIDFP00	Census tract [1]	Estimated 2016 Population [2]	70-year Resident 2017-2086 Cancer Risk [3]	Cancer Burden by Census Tract and Block	Cancer Burden for >= 1E-04 Zone	Cancer Burden for >= 1E-05 Zone	Cancer Burden for >= 1E-06 Zone	Cancer Burden for >= 1E-07 Zone
060372771002	2771	928	5.21E-07	4.84E-04	0.00E+00	0.00E+00	0.00E+00	4.84E-04
060372771003	2771	1220	5.95E-07	7.26E-04	0.00E+00	0.00E+00	0.00E+00	7.26E-04
060372772001	2772	2386	8.68E-06	2.07E-02	0.00E+00	0.00E+00	2.07E-02	2.07E-02
060372780011	2780.01	1119	2.10E-06	2.35E-03	0.00E+00	0.00E+00	2.35E-03	2.35E-03
060372780012	2780.01	1454	1.34E-06	1.94E-03	0.00E+00	0.00E+00	1.94E-03	1.94E-03
060372781021	2781.02	772	1.49E-06	1.15E-03	0.00E+00	0.00E+00	1.15E-03	1.15E-03
060372911201	2911.2	2313	3.71E-08	8.58E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375327001	5327	1396	3.79E-07	5.29E-04	0.00E+00	0.00E+00	0.00E+00	5.29E-04
060375330013	5330.01	1642	3.96E-07	6.49E-04	0.00E+00	0.00E+00	0.00E+00	6.49E-04
060375350023	5350.02	1246	3.73E-07	4.65E-04	0.00E+00	0.00E+00	0.00E+00	4.65E-04
060375351022	5351.02	2342	2.94E-07	6.89E-04	0.00E+00	0.00E+00	0.00E+00	6.89E-04
060375407002	5407	1264	6.40E-08	8.09E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375408005	5408	1386	5.54E-08	7.68E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375409021	5409.02	1583	4.88E-08	7.72E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375413005	5413	1181	5.54E-08	6.54E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376002011	6002.01	1994	4.48E-07	8.92E-04	0.00E+00	0.00E+00	0.00E+00	8.92E-04
060376002022	6002.02	3035	1.81E-07	5.50E-04	0.00E+00	0.00E+00	0.00E+00	5.50E-04
060376003033	6003.03	2067	2.03E-08	4.19E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376004004	6004	1390	5.67E-08	7.89E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376005011	6005.01	1373	1.60E-07	2.20E-04	0.00E+00	0.00E+00	0.00E+00	2.20E-04
060376005012	6005.01	1220	1.12E-07	1.36E-04	0.00E+00	0.00E+00	0.00E+00	1.36E-04
060376005022	6005.02	1363	-1.07E-07	-1.46E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376006012	6006.01	1080	2.89E-07	3.12E-04	0.00E+00	0.00E+00	0.00E+00	3.12E-04
060376006021	6006.02	2670	3.66E-07	9.78E-04	0.00E+00	0.00E+00	0.00E+00	9.78E-04
060376007021	6007.02	976	7.30E-07	7.13E-04	0.00E+00	0.00E+00	0.00E+00	7.13E-04
060376007031	6007.03	2003	1.71E-06	3.43E-03	0.00E+00	0.00E+00	3.43E-03	3.43E-03
060376008011	6008.01	872	1.10E-06	9.58E-04	0.00E+00	0.00E+00	9.58E-04	9.58E-04
060376008014	6008.01	881	1.19E-06	1.05E-03	0.00E+00	0.00E+00	1.05E-03	1.05E-03
060376008021	6008.02	883	1.26E-06	1.11E-03	0.00E+00	0.00E+00	1.11E-03	1.11E-03
060376009023	6009.02	1175	8.81E-07	1.04E-03	0.00E+00	0.00E+00	0.00E+00	1.04E-03
060376009111	6009.11	1618	4.18E-07	6.76E-04	0.00E+00	0.00E+00	0.00E+00	6.76E-04
060376009112	6009.11	1887	3.68E-07	6.94E-04	0.00E+00	0.00E+00	0.00E+00	6.94E-04
060376009122	6009.12	2429	4.56E-07	1.11E-03	0.00E+00	0.00E+00	0.00E+00	1.11E-03
060376010023	6010.02	1801	2.70E-06	4.86E-03	0.00E+00	0.00E+00	4.86E-03	4.86E-03
060376011003	6011	2032	2.01E-06	4.09E-03	0.00E+00	0.00E+00	4.09E-03	4.09E-03
060376012021	6012.02	1736	3.79E-06	6.58E-03	0.00E+00	0.00E+00	6.58E-03	6.58E-03
060376012111	6012.11	1418	1.59E-06	2.25E-03	0.00E+00	0.00E+00	2.25E-03	2.25E-03
060376012112	6012.11	1536	2.48E-06	3.81E-03	0.00E+00	0.00E+00	3.81E-03	3.81E-03
060376013011	6013.01	825	-7.82E-09	-6.45E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376013012	6013.01	1179	3.07E-07	3.62E-04	0.00E+00	0.00E+00	0.00E+00	3.62E-04
060376014012	6014.01	1542	4.06E-06	6.26E-03	0.00E+00	0.00E+00	6.26E-03	6.26E-03
060376014021	6014.02	1665	9.10E-06	1.52E-02	0.00E+00	0.00E+00	1.52E-02	1.52E-02
060376014023	6014.02	1079	1.05E-05	1.13E-02	0.00E+00	0.00E+00	1.13E-02	1.13E-02
060376014024	6014.02	1065	1.10E-05	1.17E-02	0.00E+00	0.00E+00	1.17E-02	1.17E-02
060376015022	6015.02	1167	1.59E-06	1.85E-03	0.00E+00	0.00E+00	1.85E-03	1.85E-03
060376016003	6016	1420	5.92E-07	8.41E-04	0.00E+00	0.00E+00	0.00E+00	8.41E-04
060376018022	6018.02	1679	8.89E-07	1.49E-03	0.00E+00	0.00E+00	0.00E+00	1.49E-03
060376019002	6019	2454	5.62E-07	1.38E-03	0.00E+00	0.00E+00	0.00E+00	1.38E-03
060376020031	6020.03	2819	9.67E-08	2.73E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376020041	6020.04	2456	1.42E-07	3.49E-04	0.00E+00	0.00E+00	0.00E+00	3.49E-04
060376021031	6021.03	2287	-8.99E-09	-2.06E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376021061	6021.06	2849	2.41E-07	6.86E-04	0.00E+00	0.00E+00	0.00E+00	6.86E-04
060376021063	6021.06	907	3.06E-07	2.78E-04	0.00E+00	0.00E+00	0.00E+00	2.78E-04
060376022004	6022	1652	4.16E-07	6.86E-04	0.00E+00	0.00E+00	0.00E+00	6.86E-04
060376023011	6023.01	1516	2.51E-07	3.80E-04	0.00E+00	0.00E+00	0.00E+00	3.80E-04
060376023023	6023.02	706	3.20E-07	2.26E-04	0.00E+00	0.00E+00	0.00E+00	2.26E-04
060376025081	6025.08	1788	1.57E-07	2.81E-04	0.00E+00	0.00E+00	0.00E+00	2.81E-04
060376026002	6026	1429	7.04E-08	1.01E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376026003	6026	855	8.32E-08	7.12E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376026004	6026	792	9.00E-08	7.13E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376026005	6026	614	9.29E-08	5.71E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376027002	6027	847	-3.26E-08	-2.76E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376027003	6027	797	7.11E-08	5.67E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 1-11. Residential Cancer Burden for Unmitigated Construction, 2017-2027, and Operations During Construction, 2024-2086

BKGPIDFP00	Census tract [1]	Estimated 2016 Population [2]	70-year Resident 2017-2086 Cancer Risk [3]	Cancer Burden by Census Tract and Block	Cancer Burden for >= 1E-04 Zone	Cancer Burden for >= 1E-05 Zone	Cancer Burden for >= 1E-06 Zone	Cancer Burden for >= 1E-07 Zone
060376027004	6027	581	-1.30E-07	-7.54E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376028011	6028.01	3276	-3.23E-08	-1.06E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376200011	6200.01	1165	1.77E-06	2.06E-03	0.00E+00	0.00E+00	2.06E-03	2.06E-03
060376200012	6200.01	1345	1.23E-06	1.65E-03	0.00E+00	0.00E+00	1.65E-03	1.65E-03
060376200013	6200.01	1617	2.53E-06	4.09E-03	0.00E+00	0.00E+00	4.09E-03	4.09E-03
060376200021	6200.02	1255	8.44E-07	1.06E-03	0.00E+00	0.00E+00	0.00E+00	1.06E-03
060376200022	6200.02	1407	8.78E-07	1.24E-03	0.00E+00	0.00E+00	0.00E+00	1.24E-03
060376200023	6200.02	1116	1.14E-06	1.27E-03	0.00E+00	0.00E+00	1.27E-03	1.27E-03
060376201011	6201.01	1462	2.34E-06	3.43E-03	0.00E+00	0.00E+00	3.43E-03	3.43E-03
060376201012	6201.01	2069	1.54E-06	3.19E-03	0.00E+00	0.00E+00	3.19E-03	3.19E-03
060376201013	6201.01	2148	3.26E-06	6.99E-03	0.00E+00	0.00E+00	6.99E-03	6.99E-03
060376201021	6201.02	1057	1.34E-06	1.42E-03	0.00E+00	0.00E+00	1.42E-03	1.42E-03
060376201023	6201.02	1978	9.71E-07	1.92E-03	0.00E+00	0.00E+00	0.00E+00	1.92E-03
060377025015	7025.01	711	3.03E-08	2.16E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377026001	7026	724	4.73E-08	3.42E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377026002	7026	1039	8.13E-08	8.45E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377026003	7026	938	5.97E-08	5.59E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377026004	7026	1604	-4.16E-08	-6.68E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377026005	7026	761	4.02E-08	3.06E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377027001	7027	861	3.91E-08	3.36E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377027004	7027	1053	4.80E-08	5.05E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377028011	7028.01	2686	-8.92E-08	-2.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377028012	7028.01	1352	4.37E-08	5.90E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377028022	7028.02	1331	8.39E-08	1.12E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377030013	7030.01	1768	7.18E-08	1.27E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377030021	7030.02	1500	7.70E-08	1.15E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377030022	7030.02	1212	1.42E-07	1.72E-04	0.00E+00	0.00E+00	0.00E+00	1.72E-04
060377030023	7030.02	2455	2.24E-07	5.50E-04	0.00E+00	0.00E+00	0.00E+00	5.50E-04
060377030024	7030.02	1746	7.22E-08	1.26E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377031001	7031	725	3.11E-08	2.26E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377031006	7031	673	1.39E-07	9.38E-05	0.00E+00	0.00E+00	0.00E+00	9.38E-05
060377032005	7032	1099	1.05E-07	1.16E-04	0.00E+00	0.00E+00	0.00E+00	1.16E-04
060377032006	7032	1109	1.43E-07	1.58E-04	0.00E+00	0.00E+00	0.00E+00	1.58E-04
060379800131	9800.13	62	6.55E-07	4.04E-05	0.00E+00	0.00E+00	0.00E+00	4.04E-05

[1] Census tract was matched to air model grid points identified as residential or residential/commercial.

[2] The 2016 population is estimated from the 2010 census population number by multiplying by the ratio of the total 2016 LA County Population number to the total 2010 LA County Population (1.046581968740870). Population numbers are not available (N/A) for construction grid points identified as sensitive receptors and included in the residential category.

[3] Cancer Risk is based on the sum of exposure to unmitigated construction and operations at a grid point. When multiple grid points are located within a census tract the cancer risk is the average of risk at within the census tract.

[4] Total cancer burden is the sum of individual census tract cancer burdens.

Table 1-12. Residential Cancer Burden for Mitigated Construction, 2017-2027, and Operations During Construction, 2024-2086

BKGPIDFP00	Census tract [1]	Estimated 2016 Population [2]	70-year Resident 2017-2086 Cancer Risk [3]	Cancer Burden by Census Tract and Block	Cancer Burden for >= 1E-04 Zone	Cancer Burden for >= 1E-05 Zone	Cancer Burden for >= 1E-06 Zone	Cancer Burden for >= 1E-07 Zone
			Total Cancer Burden [4]	-2.25E-03	0.0	0.000	0.012	0.021
060372267001	2267	1915	-1.69E-08	-3.24E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372281001	2281	1312	-7.06E-09	-9.27E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372281002	2281	2388	2.83E-09	6.76E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372284103	2284.1	1689	-3.25E-08	-5.49E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372285001	2285	2091	-1.72E-08	-3.60E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372286001	2286	3004	-2.82E-09	-8.46E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372288003	2288	1945	1.67E-08	3.24E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372292001	2292	1736	1.07E-08	1.85E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372293001	2293	2631	-8.66E-10	-2.28E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372311001	2311	833	-1.04E-07	-8.67E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372313001	2313	2708	-3.80E-08	-1.03E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372314001	2314	1780	-7.08E-08	-1.26E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372314002	2314	1460	-7.76E-08	-1.13E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372315002	2315	1725	-2.78E-08	-4.80E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372316003	2316	1483	-2.70E-08	-4.01E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372317103	2317.1	1780	-4.20E-08	-7.47E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372318003	2318	1035	-8.57E-08	-8.87E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372319002	2319	3368	-6.39E-08	-2.15E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372321102	2321.1	1896	-4.06E-08	-7.70E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372323002	2323	1303	-3.83E-08	-4.99E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372324003	2324	1485	-1.96E-08	-2.92E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372340002	2340	672	-4.99E-08	-3.36E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372340004	2340	871	-4.33E-08	-3.77E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372340005	2340	1171	-1.03E-07	-1.21E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372342002	2342	638	-8.25E-08	-5.27E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372343004	2343	1047	-7.14E-08	-7.47E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372345012	2345.01	1478	-2.45E-08	-3.61E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372346001	2346	1538	-1.68E-08	-2.58E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372346004	2346	1670	-3.14E-08	-5.24E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372347001	2347	842	-1.06E-08	-8.90E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372347002	2347	800	-1.25E-08	-1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372347003	2347	1582	-1.65E-08	-2.61E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372349011	2349.01	1311	-6.99E-09	-9.16E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372351001	2351	1322	-4.82E-08	-6.37E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372352011	2352.01	951	6.11E-08	5.81E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372352013	2352.01	1121	3.92E-08	4.40E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372352021	2352.02	2509	1.67E-08	4.19E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372352023	2352.02	885	1.43E-07	1.27E-04	0.00E+00	0.00E+00	0.00E+00	1.27E-04
060372360002	2360	1139	-3.35E-08	-3.82E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372361004	2361	1580	-4.69E-08	-7.42E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372362021	2362.02	2903	-1.44E-07	-4.18E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372362031	2362.03	2473	-4.54E-08	-1.12E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372362041	2362.04	2080	-5.01E-08	-1.04E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372364001	2364	1499	-6.73E-08	-1.01E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372364002	2364	1526	-1.58E-07	-2.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372371013	2371.01	296	1.51E-08	4.48E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372372011	2372.01	1345	1.46E-08	1.96E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372373002	2373	1094	5.94E-08	6.50E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372373004	2373	1115	7.44E-08	8.30E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372374022	2374.02	1249	6.88E-08	8.59E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372375001	2375	2073	5.34E-08	1.11E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372377201	2377.2	828	6.15E-08	5.09E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372378003	2378	850	9.36E-08	7.95E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372379002	2379	1126	1.23E-07	1.39E-04	0.00E+00	0.00E+00	0.00E+00	1.39E-04
060372379004	2379	867	1.12E-07	9.72E-05	0.00E+00	0.00E+00	0.00E+00	9.72E-05
060372380004	2380	1020	8.60E-09	8.78E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372380005	2380	1147	-3.28E-08	-3.77E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372380006	2380	1171	-5.67E-08	-6.64E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372381002	2381	1423	2.25E-07	3.20E-04	0.00E+00	0.00E+00	0.00E+00	3.20E-04
060372383201	2383.2	1879	1.11E-07	2.09E-04	0.00E+00	0.00E+00	0.00E+00	2.09E-04
060372392013	2392.01	922	-4.03E-08	-3.72E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 1-12. Residential Cancer Burden for Mitigated Construction, 2017-2027, and Operations During Construction, 2024-2086

BKGPIDFP00	Census tract [1]	Estimated 2016 Population [2]	70-year Resident 2017-2086 Cancer Risk [3]	Cancer Burden by Census Tract and Block	Cancer Burden for >= 1E-04 Zone	Cancer Burden for >= 1E-05 Zone	Cancer Burden for >= 1E-06 Zone	Cancer Burden for >= 1E-07 Zone
060372392021	2392.02	2499	2.20E-08	5.49E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372393101	2393.1	1439	-1.68E-08	-2.42E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372393302	2393.3	1736	3.42E-08	5.94E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372395022	2395.02	903	3.15E-08	2.85E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372396022	2396.02	1869	-1.31E-08	-2.44E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372398022	2398.02	1339	6.78E-09	9.07E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372404012	2404.01	2214	-2.90E-08	-6.41E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372405003	2405	1369	-6.69E-08	-9.16E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372405004	2405	1379	-1.49E-07	-2.06E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372406001	2406	1040	-2.82E-08	-2.93E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372406002	2406	1092	-4.19E-08	-4.58E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372407001	2407	1361	-3.40E-08	-4.62E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372407003	2407	1669	-1.63E-08	-2.72E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372409002	2409	2003	-5.54E-08	-1.11E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372409004	2409	896	-9.46E-08	-8.47E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372410021	2410.02	1576	-4.33E-08	-6.83E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372410022	2410.02	1068	-2.25E-08	-2.40E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372411201	2411.2	1281	-1.64E-07	-2.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372412011	2412.01	1191	-7.39E-08	-8.81E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372412021	2412.02	1100	-1.52E-07	-1.67E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372413002	2413	1370	-1.29E-07	-1.77E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372414002	2414	2010	-1.03E-07	-2.08E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372423001	2423	2628	-1.17E-08	-3.07E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372427004	2427	1357	-3.22E-08	-4.37E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372427005	2427	701	-2.68E-08	-1.88E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372714001	2714	673	-4.14E-08	-2.79E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372715002	2715	654	-4.65E-08	-3.04E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372718012	2718.01	2164	-1.37E-07	-2.97E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372719011	2719.01	1113	-2.81E-07	-3.13E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372719021	2719.02	771	-5.29E-08	-4.08E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372721003	2721	856	-3.22E-08	-2.76E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372721005	2721	755	-3.02E-08	-2.28E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372722021	2722.02	1086	-3.73E-08	-4.05E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372723021	2723.02	2285	-5.39E-08	-1.23E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372738001	2738	1666	-3.32E-08	-5.53E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372751021	2751.02	3444	-1.27E-07	-4.37E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372752001	2752	1390	-8.28E-08	-1.15E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372753021	2753.02	828	-4.59E-08	-3.80E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372753111	2753.11	1113	-4.57E-08	-5.09E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372753113	2753.11	1263	-6.84E-08	-8.65E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372753114	2753.11	1556	-5.56E-08	-8.65E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372754001	2754	1193	-4.28E-08	-5.11E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372755001	2755	766	-8.38E-08	-6.42E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372755002	2755	848	-7.68E-08	-6.51E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372756021	2756.02	6771	-1.03E-07	-6.81E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372756033	2756.03	1259	-8.78E-08	-1.11E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372760003	2760	1340	-5.38E-07	-7.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372760004	2760	1254	-2.07E-07	-2.59E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372764002	2764	964	-6.45E-08	-6.22E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372764003	2764	883	-1.25E-07	-1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372764004	2764	807	-1.41E-07	-1.14E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372765001	2765	3388	-6.46E-08	-2.19E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372765002	2765	1911	-4.00E-08	-7.64E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372766014	2766.01	1025	6.15E-08	6.30E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372766031	2766.03	2122	1.22E-07	2.59E-04	0.00E+00	0.00E+00	0.00E+00	2.59E-04
060372766032	2766.03	3374	1.26E-07	4.25E-04	0.00E+00	0.00E+00	0.00E+00	4.25E-04
060372766041	2766.04	2256	5.31E-07	1.20E-03	0.00E+00	0.00E+00	0.00E+00	1.20E-03
060372766042	2766.04	1912	8.34E-08	1.59E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372770001	2770	1266	-2.75E-07	-3.49E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372770003	2770	1369	-7.79E-08	-1.07E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372770004	2770	768	-1.56E-07	-1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372770005	2770	1050	-3.45E-07	-3.62E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372771001	2771	995	-9.63E-08	-9.59E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 1-12. Residential Cancer Burden for Mitigated Construction, 2017-2027, and Operations During Construction, 2024-2086

BKGPIDFP00	Census tract [1]	Estimated 2016 Population [2]	70-year Resident 2017-2086 Cancer Risk [3]	Cancer Burden by Census Tract and Block	Cancer Burden for >= 1E-04 Zone	Cancer Burden for >= 1E-05 Zone	Cancer Burden for >= 1E-06 Zone	Cancer Burden for >= 1E-07 Zone
060372771002	2771	928	-2.33E-07	-2.16E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372771003	2771	1220	-3.79E-07	-4.62E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372772001	2772	2386	-1.60E-06	-3.81E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372780011	2780.01	1119	-8.12E-07	-9.09E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372780012	2780.01	1454	-1.76E-07	-2.56E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372781021	2781.02	772	1.34E-07	1.03E-04	0.00E+00	0.00E+00	0.00E+00	1.03E-04
060372911201	2911.2	2313	-4.46E-08	-1.03E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375327001	5327	1396	2.76E-08	3.86E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375330013	5330.01	1642	3.03E-08	4.98E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375350023	5350.02	1246	2.37E-08	2.95E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375351022	5351.02	2342	5.80E-09	1.36E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375407002	5407	1264	-1.67E-08	-2.11E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375408005	5408	1386	-1.22E-08	-1.70E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375409021	5409.02	1583	-2.05E-08	-3.25E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375413005	5413	1181	-8.23E-09	-9.71E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376002011	6002.01	1994	-5.22E-09	-1.04E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376002022	6002.02	3035	-6.94E-08	-2.11E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376003033	6003.03	2067	-1.18E-07	-2.43E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376004004	6004	1390	-1.00E-07	-1.39E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376005011	6005.01	1373	-7.58E-08	-1.04E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376005012	6005.01	1220	-9.92E-08	-1.21E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376005022	6005.02	1363	-3.25E-07	-4.42E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376006012	6006.01	1080	-5.88E-08	-6.35E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376006021	6006.02	2670	-5.60E-08	-1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376007021	6007.02	976	4.31E-08	4.21E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376007031	6007.03	2003	3.58E-07	7.17E-04	0.00E+00	0.00E+00	0.00E+00	7.17E-04
060376008011	6008.01	872	1.43E-07	1.24E-04	0.00E+00	0.00E+00	0.00E+00	1.24E-04
060376008014	6008.01	881	1.63E-07	1.44E-04	0.00E+00	0.00E+00	0.00E+00	1.44E-04
060376008021	6008.02	883	1.80E-07	1.59E-04	0.00E+00	0.00E+00	0.00E+00	1.59E-04
060376009023	6009.02	1175	-6.03E-08	-7.09E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376009111	6009.11	1618	-2.31E-08	-3.74E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376009112	6009.11	1887	-5.69E-08	-1.07E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376009122	6009.12	2429	-4.51E-08	-1.09E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376010023	6010.02	1801	5.64E-07	1.02E-03	0.00E+00	0.00E+00	0.00E+00	1.02E-03
060376011003	6011	2032	3.30E-07	6.71E-04	0.00E+00	0.00E+00	0.00E+00	6.71E-04
060376012021	6012.02	1736	8.40E-07	1.46E-03	0.00E+00	0.00E+00	0.00E+00	1.46E-03
060376012111	6012.11	1418	-4.64E-08	-6.58E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376012112	6012.11	1536	2.07E-07	3.18E-04	0.00E+00	0.00E+00	0.00E+00	3.18E-04
060376013011	6013.01	825	-3.43E-07	-2.83E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376013012	6013.01	1179	-1.07E-07	-1.26E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376014012	6014.01	1542	6.46E-07	9.96E-04	0.00E+00	0.00E+00	0.00E+00	9.96E-04
060376

Table 1-12. Residential Cancer Burden for Mitigated Construction, 2017-2027, and Operations During Construction, 2024-2086

BKGPIDFP00	Census tract [1]	Estimated 2016 Population [2]	70-year Resident 2017-2086 Cancer Risk [3]	Cancer Burden by Census Tract and Block	Cancer Burden for >= 1E-04 Zone	Cancer Burden for >= 1E-05 Zone	Cancer Burden for >= 1E-06 Zone	Cancer Burden for >= 1E-07 Zone
060376027004	6027	581	-2.95E-07	-1.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376028011	6028.01	3276	-1.43E-07	-4.67E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376200011	6200.01	1165	-9.62E-08	-1.12E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376200012	6200.01	1345	1.03E-08	1.39E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376200013	6200.01	1617	9.18E-08	1.48E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376200021	6200.02	1255	1.83E-08	2.30E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376200022	6200.02	1407	-7.09E-09	-9.98E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376200023	6200.02	1116	2.96E-08	3.30E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376201011	6201.01	1462	1.63E-07	2.38E-04	0.00E+00	0.00E+00	0.00E+00	2.38E-04
060376201012	6201.01	2069	1.15E-07	2.38E-04	0.00E+00	0.00E+00	0.00E+00	2.38E-04
060376201013	6201.01	2148	3.41E-07	7.33E-04	0.00E+00	0.00E+00	0.00E+00	7.33E-04
060376201021	6201.02	1057	9.75E-08	1.03E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376201023	6201.02	1978	5.49E-08	1.09E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377025015	7025.01	711	-7.80E-08	-5.54E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377026001	7026	724	-5.73E-08	-4.15E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377026002	7026	1039	-7.45E-08	-7.74E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377026003	7026	938	-1.12E-07	-1.05E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377026004	7026	1604	-2.29E-07	-3.67E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377026005	7026	761	-1.30E-07	-9.90E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377027001	7027	861	-8.47E-08	-7.29E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377027004	7027	1053	-8.62E-08	-9.08E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377028011	7028.01	2686	-2.14E-07	-5.76E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377028012	7028.01	1352	-7.36E-08	-9.96E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377028022	7028.02	1331	-8.13E-08	-1.08E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377030013	7030.01	1768	-6.60E-08	-1.17E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377030021	7030.02	1500	-1.55E-07	-2.32E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377030022	7030.02	1212	-1.01E-07	-1.22E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377030023	7030.02	2455	-1.37E-07	-3.37E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377030024	7030.02	1746	-9.53E-08	-1.66E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377031001	7031	725	-7.67E-08	-5.56E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377031006	7031	673	-7.00E-08	-4.71E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377032005	7032	1099	-7.27E-08	-7.99E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377032006	7032	1109	-6.03E-08	-6.69E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060379800131	9800.13	62	-8.70E-08	-5.37E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00

[1] Census tract was matched to air model grid points identified as residential or residential/commercial.

[2] The 2016 population is estimated from the 2010 census population number by multiplying by the ratio of the total 2016 LA County Population number to the total 2010 LA County Population (1.046581968740870). Population numbers are not available (N/A) for construction grid points identified as sensitive receptors and included in the residential category.

[3] Cancer Risk is based on the sum of exposure to unmitigated construction and operations at a grid point. When multiple grid points are located within a census tract the cancer risk is the average of risk at within the census tract.

[4] Total cancer burden is the sum of individual census tract cancer burdens.

Table 1-13. Residential Cancer Burden for 2024 With Project vs. 2024 Without Project Operations, 2024-2093, with Unmitigated Construction, 2024-2027

BKGPIDFP00	Census tract [1]	Estimated 2016 Population [2]	70-year Resident 2024-2093 Cancer Risk [3]	Cancer Burden by Census Tract and Block	Cancer Burden for >= 1E-04 Zone	Cancer Burden for >= 1E-05 Zone	Cancer Burden for >= 1E-06 Zone	Cancer Burden for >= 1E-07 Zone
	Total Cancer Burden [4]			-0.1	0.0	0.00	0.014	0.017
060372267001	2267	1915	-9.74E-08	-1.87E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372281001	2281	1312	-7.82E-08	-1.03E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372281002	2281	2388	-8.12E-08	-1.94E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372284103	2284.1	1689	-1.24E-07	-2.09E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372285001	2285	2091	-1.21E-07	-2.52E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372286001	2286	3004	-9.24E-08	-2.78E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372288003	2288	1945	-8.07E-08	-1.57E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372292001	2292	1736	-9.27E-08	-1.61E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372293001	2293	2631	-1.14E-07	-3.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372311001	2311	833	-2.65E-07	-2.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372313001	2313	2708	-1.29E-07	-3.48E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372314001	2314	1780	-1.92E-07	-3.42E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372314002	2314	1460	-2.07E-07	-3.02E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372315002	2315	1725	-1.20E-07	-2.07E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372316003	2316	1483	-1.24E-07	-1.83E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372317103	2317.1	1780	-1.58E-07	-2.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372318003	2318	1035	-2.52E-07	-2.61E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372319002	2319	3368	-2.39E-07	-8.05E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372321102	2321.1	1896	-1.90E-07	-3.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372323002	2323	1303	-1.83E-07	-2.38E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372324003	2324	1485	-1.37E-07	-2.03E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372340002	2340	672	-1.51E-07	-1.01E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372340004	2340	871	-1.48E-07	-1.29E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372340005	2340	1171	-2.59E-07	-3.03E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372342002	2342	638	-2.15E-07	-1.37E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372343004	2343	1047	-2.00E-07	-2.09E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372345012	2345.01	1478	-1.37E-07	-2.03E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372346001	2346	1538	-1.33E-07	-2.05E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372346004	2346	1670	-1.59E-07	-2.66E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372347001	2347	842	-1.72E-07	-1.45E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372347002	2347	800	-1.68E-07	-1.34E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372347003	2347	1582	-1.58E-07	-2.51E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372349011	2349.01	1311	-2.14E-07	-2.81E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372351001	2351	1322	-2.00E-07	-2.64E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372352011	2352.01	951	-1.27E-07	-1.21E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372352013	2352.01	1121	-1.71E-07	-1.91E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372352021	2352.02	2509	-1.83E-07	-4.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372352023	2352.02	885	-9.04E-08	-8.01E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372360002	2360	1139	-9.95E-08	-1.13E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372361004	2361	1580	-1.44E-07	-2.28E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372362021	2362.02	2903	-3.37E-07	-9.79E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372362031	2362.03	2473	-1.35E-07	-3.33E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372362041	2362.04	2080	-1.44E-07	-3.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372364001	2364	1499	-1.85E-07	-2.78E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372364002	2364	1526	-3.61E-07	-5.51E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372371013	2371.01	296	-1.28E-07	-3.78E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372372011	2372.01	1345	-1.28E-07	-1.72E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372373002	2373	1094	-1.15E-07	-1.26E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372373004	2373	1115	-1.04E-07	-1.15E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372374022	2374.02	1249	-8.89E-08	-1.11E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372375001	2375	2073	-1.05E-07	-2.18E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372377201	2377.2	828	-1.14E-07	-9.48E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372378003	2378	850	-8.74E-08	-7.43E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372379002	2379	1126	-7.65E-08	-8.62E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372379004	2379	867	-8.88E-08	-7.70E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372380004	2380	1020	-2.01E-07	-2.05E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372380005	2380	1147	-2.49E-07	-2.86E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372380006	2380	1171	-2.24E-07	-2.63E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372381002	2381	1423	1.45E-07	2.06E-04	0.00E+00	0.00E+00	0.00E+00	2.06E-04
060372383201	2383.2	1879	1.33E-08	2.50E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372392013	2392.01	922	-2.39E-07	-2.21E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 1-13. Residential Cancer Burden for 2024 With Project vs. 2024 Without Project Operations, 2024-2093, with Unmitigated Construction, 2024-2027

BKGPIDFP00	Census tract [1]	Estimated 2016 Population [2]	70-year Resident 2024-2093 Cancer Risk [3]	Cancer Burden by Census Tract and Block	Cancer Burden for >= 1E-04 Zone	Cancer Burden for >= 1E-05 Zone	Cancer Burden for >= 1E-06 Zone	Cancer Burden for >= 1E-07 Zone
060372392021	2392.02	2499	-1.11E-07	-2.76E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372393101	2393.1	1439	-2.27E-07	-3.26E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372393302	2393.3	1736	-1.06E-07	-1.84E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372395022	2395.02	903	-1.11E-07	-9.98E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372396022	2396.02	1869	-2.27E-07	-4.25E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372398022	2398.02	1339	-1.34E-07	-1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372404012	2404.01	2214	-2.08E-07	-4.61E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372405003	2405	1369	-2.15E-07	-2.94E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372405004	2405	1379	-4.26E-07	-5.88E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372406001	2406	1040	-1.64E-07	-1.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372406002	2406	1092	-1.57E-07	-1.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372407001	2407	1361	-1.35E-07	-1.83E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372407003	2407	1669	-1.25E-07	-2.09E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372409002	2409	2003	-1.54E-07	-3.09E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372409004	2409	896	-2.39E-07	-2.15E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372410021	2410.02	1576	-1.23E-07	-1.93E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372410022	2410.02	1068	-8.00E-08	-8.54E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372411201	2411.2	1281	-3.79E-07	-4.85E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372412011	2412.01	1191	-2.41E-07	-2.87E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372412021	2412.02	1100	-3.59E-07	-3.95E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372413002	2413	1370	-2.96E-07	-4.06E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372414002	2414	2010	-2.43E-07	-4.89E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372423001	2423	2628	-1.08E-07	-2.83E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372427004	2427	1357	-1.08E-07	-1.46E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372427005	2427	701	-1.15E-07	-8.06E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372714001	2714	673	-1.32E-07	-8.89E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372715002	2715	654	-1.42E-07	-9.28E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372718012	2718.01	2164	-3.20E-07	-6.92E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372719011	2719.01	1113	-6.15E-07	-6.85E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372719021	2719.02	771	-1.57E-07	-1.21E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372721003	2721	856	-1.28E-07	-1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372721005	2721	755	-1.30E-07	-9.85E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372722021	2722.02	1086	-1.65E-07	-1.79E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372723021	2723.02	2285	-1.73E-07	-3.94E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372738001	2738	1666	-1.53E-07	-2.55E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372751021	2751.02	3444	-3.31E-07	-1.14E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372752001	2752	1390	-2.46E-07	-3.42E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372753021	2753.02	828	-2.06E-07	-1.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372753111	2753.11	1113	-1.71E-07	-1.91E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372753113	2753.11	1263	-2.43E-07	-3.07E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372753114	2753.11	1556	-2.21E-07	-3.43E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372754001	2754	1193	-1.84E-07	-2.19E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372755001	2755	766	-2.48E-07	-1.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372755002	2755	848	-2.45E-07	-2.08E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372756021	2756.02	6771	-3.57E-07	-2.42E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372756033	2756.03	1259	-2.93E-07	-3.68E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372760003	2760	1340	-1.60E-06	-2.14E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372760004	2760	1254	-7.17E-07	-8.99E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372764002	2764	964	-3.72E-07	-3.59E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372764003	2764	883	-6.21E-07	-5.48E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372764004	2764	807	-7.15E-07	-5.77E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372765001	2765	3388	-4.54E-07	-1.54E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372765002	2765	1911	-3.20E-07	-6.11E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372766014	2766.01	1025	-2.51E-07	-2.58E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372766031	2766.03	2122	-3.09E-07	-6.56E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372766032	2766.03	3374	-3.05E-07	-1.03E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372766041	2766.04	2256	3.56E-07	8.02E-04	0.00E+00	0.00E+00	0.00E+00	8.02E-04
060372766042	2766.04	1912	-3.42E-07	-6.54E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372770001	2770	1266	-7.67E-07	-9.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372770003	2770	1369	-3.32E-07	-4.54E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372770004	2770	768	-4.42E-07	-3.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372770005	2770	1050	-9.04E-07	-9.49E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372771001	2771	995	-5.15E-07	-5.12E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 1-13. Residential Cancer Burden for 2024 With Project vs. 2024 Without Project Operations, 2024-2093, with Unmitigated Construction, 2024-2027

BKGPIDFP00	Census tract [1]	Estimated 2016 Population [2]	70-year Resident 2024-2093 Cancer Risk [3]	Cancer Burden by Census Tract and Block	Cancer Burden for >= 1E-04 Zone	Cancer Burden for >= 1E-05 Zone	Cancer Burden for >= 1E-06 Zone	Cancer Burden for >= 1E-07 Zone
060372771002	2771	928	-7.85E-07	-7.29E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372771003	2771	1220	-1.17E-06	-1.43E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372772001	2772	2386	-7.61E-06	-1.82E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372780011	2780.01	1119	-2.90E-06	-3.24E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372780012	2780.01	1454	-9.95E-07	-1.45E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372781021	2781.02	772	-3.08E-07	-2.38E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372911201	2911.2	2313	-1.21E-07	-2.79E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375327001	5327	1396	-7.96E-08	-1.11E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375330013	5330.01	1642	-8.30E-08	-1.36E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375350023	5350.02	1246	-8.80E-08	-1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375351022	5351.02	2342	-1.01E-07	-2.36E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375407002	5407	1264	-6.33E-08	-8.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375408005	5408	1386	-5.35E-08	-7.41E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375409021	5409.02	1583	-6.95E-08	-1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375413005	5413	1181	-4.38E-08	-5.17E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376002011	6002.01	1994	-1.91E-07	-3.81E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376002022	6002.02	3035	-2.41E-07	-7.32E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376003033	6003.03	2067	-2.92E-07	-6.03E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376004004	6004	1390	-2.66E-07	-3.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376005011	6005.01	1373	-2.47E-07	-3.39E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376005012	6005.01	1220	-2.88E-07	-3.51E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376005022	6005.02	1363	-7.43E-07	-1.01E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376006012	6006.01	1080	-2.60E-07	-2.81E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376006021	6006.02	2670	-2.86E-07	-7.63E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376007021	6007.02	976	-1.84E-07	-1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376007031	6007.03	2003	2.02E-07	4.04E-04	0.00E+00	0.00E+00	0.00E+00	4.04E-04
060376008011	6008.01	872	-8.18E-08	-7.13E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376008014	6008.01	881	-6.62E-08	-5.83E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376008021	6008.02	883	-5.20E-08	-4.59E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376009023	6009.02	1175	-4.94E-07	-5.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376009111	6009.11	1618	-2.22E-07	-3.59E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376009112	6009.11	1887	-2.86E-07	-5.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376009122	6009.12	2429	-2.92E-07	-7.09E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376010023	6010.02	1801	3.35E-07	6.04E-04	0.00E+00	0.00E+00	0.00E+00	6.04E-04
060376011003	6011	2032	1.34E-08	3.95E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376012021	6012.02	1736	6.01E-07	1.04E-03	0.00E+00	0.00E+00	0.00E+00	1.04E-03
060376012111	6012.11	1418	-7.40E-07	-1.05E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376012112	6012.11	1536	-4.75E-07	-7.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376013011	6013.01	825	-8.27E-07	-6.82E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376013012	6013.01	1179	-3.84E-07	-4.53E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376014012	6014.01	1542	-7.48E-09	-1.15E-05

Table 1-13. Residential Cancer Burden for 2024 With Project vs. 2024 Without Project Operations, 2024-2093, with Unmitigated Construction, 2024-2027

BKGPIDFP00	Census tract [1]	Estimated 2016 Population [2]	70-year Resident 2024-2093 Cancer Risk [3]	Cancer Burden by Census Tract and Block	Cancer Burden for >= 1E-04 Zone	Cancer Burden for >= 1E-05 Zone	Cancer Burden for >= 1E-06 Zone	Cancer Burden for >= 1E-07 Zone
060376027004	6027	581	-6.58E-07	-3.82E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376028011	6028.01	3276	-3.30E-07	-1.08E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376200011	6200.01	1165	-9.58E-07	-1.12E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376200012	6200.01	1345	-4.92E-07	-6.62E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376200013	6200.01	1617	-8.13E-07	-1.31E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376200021	6200.02	1255	-3.15E-07	-3.95E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376200022	6200.02	1407	-3.88E-07	-5.45E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376200023	6200.02	1116	-4.15E-07	-4.62E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376201011	6201.01	1462	-5.73E-07	-8.38E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376201012	6201.01	2069	-3.68E-07	-7.62E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376201013	6201.01	2148	-5.30E-07	-1.14E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376201021	6201.02	1057	-3.27E-07	-3.46E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376201023	6201.02	1978	-2.78E-07	-5.51E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377025015	7025.01	711	-2.00E-07	-1.42E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377026001	7026	724	-1.54E-07	-1.12E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377026002	7026	1039	-2.10E-07	-2.18E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377026003	7026	938	-2.95E-07	-2.76E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377026004	7026	1604	-5.35E-07	-8.58E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377026005	7026	761	-3.32E-07	-2.53E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377027001	7027	861	-2.22E-07	-1.91E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377027004	7027	1053	-2.26E-07	-2.38E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377028011	7028.01	2686	-4.78E-07	-1.28E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377028012	7028.01	1352	-1.97E-07	-2.66E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377028022	7028.02	1331	-2.29E-07	-3.05E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377030013	7030.01	1768	-1.87E-07	-3.31E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377030021	7030.02	1500	-4.08E-07	-6.11E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377030022	7030.02	1212	-3.04E-07	-3.68E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377030023	7030.02	2455	-4.26E-07	-1.05E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377030024	7030.02	1746	-2.57E-07	-4.49E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377031001	7031	725	-1.96E-07	-1.42E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377031006	7031	673	-2.25E-07	-1.52E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377032005	7032	1099	-2.17E-07	-2.38E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060377032006	7032	1109	-2.03E-07	-2.25E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060379800131	9800.13	62	-4.92E-07	-3.04E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00

[1] Census tract was matched to air model grid points identified as residential or residential/commercial.

[2] The 2016 population is estimated from the 2010 census population number by multiplying by the ratio of the total 2016 LA County Population number to the total 2010 LA County Population (1.046581968740870). Population numbers are not available (N/A) for construction grid points identified as sensitive receptors and included in the residential category.

[3] Cancer Risk is based on the sum of exposure to unmitigated construction and operations at a grid point. When multiple grid points are located within a census tract the cancer risk is the average of risk at within the census tract.

4 Total cancer burden is the sum of individual census tract cancer burdens.

Table 1-14. Residential Cancer Burden for 2035 With Project vs. 2035 Without Project Operations, 2035-2104

BKGPIDFP00	Census tract [1]	Estimated 2016 Population [2]	70-year Resident 2035 Cancer Risk [3]	Cancer Burden by Census Tract and Block	Cancer Burden for >= 1E-04 Zone	Cancer Burden for >= 1E-05 Zone	Cancer Burden for >= 1E-06 Zone	Cancer Burden for >= 1E-07 Zone
			Total Cancer Burden [4]	-0.2	0.0	0.00	0.014	0.018
060372267001	2267	1915	-1.86E-07	-3.57E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372281001	2281	1312	-1.56E-07	-2.04E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372281002	2281	2388	-1.64E-07	-3.92E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372284103	2284.1	1689	-2.34E-07	-3.96E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372285001	2285	2091	-2.36E-07	-4.94E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372286001	2286	3004	-1.85E-07	-5.57E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372288003	2288	1945	-1.71E-07	-3.32E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372292001	2292	1736	-1.92E-07	-3.34E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372293001	2293	2631	-2.33E-07	-6.14E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372311001	2311	833	-5.06E-07	-4.22E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372313001	2313	2708	-2.45E-07	-6.63E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372314001	2314	1780	-3.58E-07	-6.36E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372314002	2314	1460	-3.89E-07	-5.67E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372315002	2315	1725	-2.34E-07	-4.04E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372316003	2316	1483	-2.39E-07	-3.54E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372317103	2317.1	1780	-2.99E-07	-5.32E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372318003	2318	1035	-4.80E-07	-4.97E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372319002	2319	3368	-4.71E-07	-1.59E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372321102	2321.1	1896	-3.80E-07	-7.21E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372323002	2323	1303	-3.48E-07	-4.53E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372324003	2324	1485	-2.62E-07	-3.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372340002	2340	672	-2.74E-07	-1.84E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372340004	2340	871	-2.80E-07	-2.44E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372340005	2340	1171	-4.83E-07	-5.66E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372342002	2342	638	-4.00E-07	-2.56E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372343004	2343	1047	-3.69E-07	-3.86E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372345012	2345.01	1478	-2.66E-07	-3.93E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372346001	2346	1538	-2.62E-07	-4.03E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372346004	2346	1670	-3.07E-07	-5.13E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372347001	2347	842	-3.19E-07	-2.68E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372347002	2347	800	-3.15E-07	-2.52E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372347003	2347	1582	-3.11E-07	-4.93E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372349011	2349.01	1311	-3.98E-07	-5.22E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372351001	2351	1322	-3.65E-07	-4.82E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372352011	2352.01	951	-2.97E-07	-2.83E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372352013	2352.01	1121	-3.65E-07	-4.09E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372352021	2352.02	2509	-3.59E-07	-9.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372352023	2352.02	885	-2.45E-07	-2.17E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372360002	2360	1139	-1.84E-07	-2.09E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372361004	2361	1580	-2.68E-07	-4.24E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372362021	2362.02	2903	-6.13E-07	-1.78E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372362031	2362.03	2473	-2.51E-07	-6.22E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372362041	2362.04	2080	-2.71E-07	-5.63E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372364001	2364	1499	-3.43E-07	-5.14E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372364002	2364	1526	-6.74E-07	-1.03E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372371013	2371.01	296	-2.68E-07	-7.93E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372372011	2372.01	1345	-2.64E-07	-3.54E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372373002	2373	1094	-2.72E-07	-2.97E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372373004	2373	1115	-2.63E-07	-2.93E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372374022	2374.02	1249	-2.22E-07	-2.77E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372375001	2375	2073	-2.53E-07	-5.24E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372377201	2377.2	828	-2.68E-07	-2.22E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372378003	2378	850	-2.29E-07	-1.95E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372379002	2379	1126	-2.30E-07	-2.59E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372379004	2379	867	-2.45E-07	-2.12E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372380004	2380	1020	-4.15E-07	-4.24E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372380005	2380	1147	-4.90E-07	-5.62E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372380006	2380	1171	-4.19E-07	-4.91E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372381002	2381	1423	1.68E-07	2.40E-04	0.00E+00	0.00E+00	0.00E+00	2.40E-04
060372383201	2383.2	1879	-2.92E-08	-5.48E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372392013	2392.01	922	-4.82E-07	-4.44E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372392021	2392.02	2499	-2.37E-07	-5.93E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 1-14. Residential Cancer Burden for 2035 With Project vs. 2035 Without Project Operations, 2035-2104

BKGPIDFP00	Census tract [1]	Estimated 2016 Population [2]	70-year Resident 2035 Cancer Risk [3]	Cancer Burden by Census Tract and Block	Cancer Burden for >= 1E-04 Zone	Cancer Burden for >= 1E-05 Zone	Cancer Burden for >= 1E-06 Zone	Cancer Burden for >= 1E-07 Zone
060372393101	2393.1	1439	-4.80E-07	-6.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372393302	2393.3	1736	-2.39E-07	-4.14E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372395022	2395.02	903	-2.43E-07	-2.19E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372396022	2396.02	1869	-4.64E-07	-8.67E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372398022	2398.02	1339	-2.78E-07	-3.72E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372404012	2404.01	2214	-4.11E-07	-9.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372405003	2405	1369	-4.01E-07	-5.49E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372405004	2405	1379	-8.04E-07	-1.11E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372406001	2406	1040	-3.20E-07	-3.33E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372406002	2406	1092	-2.99E-07	-3.26E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372407001	2407	1361	-2.56E-07	-3.48E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372407003	2407	1669	-2.49E-07	-4.15E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372409002	2409	2003	-2.88E-07	-5.78E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372409004	2409	896	-4.46E-07	-3.99E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372410021	2410.02	1576	-2.25E-07	-3.54E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372410022	2410.02	1068	-1.47E-07	-1.57E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372411201	2411.2	1281	-7.03E-07	-9.01E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372412011	2412.01	1191	-4.48E-07	-5.34E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372412021	2412.02	1100	-6.67E-07	-7.34E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372413002	2413	1370	-5.52E-07	-7.56E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372414002	2414	2010	-4.50E-07	-9.05E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372423001	2423	2628	-2.13E-07	-5.59E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372427004	2427	1357	-1.99E-07	-2.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372427005	2427	701	-2.17E-07	-1.52E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372714001	2714	673	-2.44E-07	-1.64E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372715002	2715	654	-2.64E-07	-1.72E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372718012	2718.01	2164	-5.99E-07	-1.30E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372719011	2719.01	1113	-1.15E-06	-1.28E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372719021	2719.02	771	-2.91E-07	-2.25E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372721003	2721	856	-2.40E-07	-2.06E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372721005	2721	755	-2.44E-07	-1.84E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372722021	2722.02	1086	-3.02E-07	-3.28E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372723021	2723.02	2285	-3.20E-07	-7.32E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372738001	2738	1666	-2.81E-07	-4.69E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372751021	2751.02	3444	-6.13E-07	-2.11E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372752001	2752	1390	-4.51E-07	-6.27E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372753021	2753.02	828	-3.81E-07	-3.15E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372753111	2753.11	1113	-3.16E-07	-3.52E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372753113	2753.11	1263	-4.47E-07	-5.65E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372753114	2753.11	1556	-4.03E-07	-6.28E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372754001	2754	1193	-3.39E-07	-4.05E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372755001	2755	766	-4.57E-07	-3.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372755002	2755	848	-4.47E-07	-3.79E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372756021	2756.02	6771	-6.41E-07	-4.34E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372756033	2756.03	1259	-5.28E-07	-6.65E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372760003	2760	1340	-2.78E-06	-3.72E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372760004	2760	1254	-1.27E-06	-1.59E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372764002	2764	964	-6.72E-07	-6.48E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372764003	2764	883	-1.08E-06	-9.53E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372764004	2764	807	-1.26E-06	-1.02E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372765001	2765	3388	-8.09E-07	-2.74E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372765002	2765	1911	-5.75E-07	-1.10E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372766014	2766.01	1025	-4.67E-07	-4.79E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372766031	2766.03	2122	-5.74E-07	-1.22E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372766032	2766.03	3374	-5.68E-07	-1.92E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372766041	2766.04	2256	7.07E-07	1.60E-03	0.00E+00	0.00E+00	0.00E+00	1.60E-03
060372766042	2766.04	1912	-6.27E-07	-1.20E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372770001	2770	1266	-1.36E-06	-1.72E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372770003	2770	1369	-5.91E-07	-8.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372770004	2770	768	-7.83E-07	-6.01E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372770005	2770	1050	-1.59E-06	-1.67E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372771001	2771	995	-9.31E-07	-9.26E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372771002	2771	928	-1.39E-06	-1.29E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 1-14. Residential Cancer Burden for 2035 With Project vs. 2035 Without Project Operations, 2035-2104

BKGPIDFP00	Census tract [1]	Estimated 2016 Population [2]	70-year Resident 2035 Cancer Risk [3]	Cancer Burden by Census Tract and Block	Cancer Burden for >= 1E-04 Zone	Cancer Burden for >= 1E-05 Zone	Cancer Burden for >= 1E-06 Zone	Cancer Burden for >= 1E-07 Zone
060372771003	2771	1220	-2.05E-06	-2.50E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372772001	2772	2386	-9.95E-06	-2.37E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372780011	2780.01	1119	-4.47E-06	-5.01E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372780012	2780.01	1454	-1.69E-06	-2.46E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372781021	2781.02	772	-5.78E-07	-4.46E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060372911201	2911.2	2313	-2.26E-07	-5.23E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375327001	5327	1396	-1.75E-07	-2.44E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375330013	5330.01	1642	-1.81E-07	-2.96E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375350023	5350.02	1246	-1.89E-07	-2.35E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375351022	5351.02	2342	-2.07E-07	-4.85E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375407002	5407	1264	-1.18E-07	-1.49E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375408005	5408	1386	-9.93E-08	-1.38E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375409021	5409.02	1583	-1.29E-07	-2.04E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060375413005	5413	1181	-8.16E-08	-9.63E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376002011	6002.01	1994	-3.90E-07	-7.77E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376002022	6002.02	3035	-4.46E-07	-1.35E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376003033	6003.03	2067	-5.42E-07	-1.12E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376004004	6004	1390	-4.99E-07	-6.94E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376005011	6005.01	1373	-4.68E-07	-6.43E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376005012	6005.01	1220	-5.46E-07	-6.66E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376005022	6005.02	1363	-1.39E-06	-1.89E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376006012	6006.01	1080	-4.91E-07	-5.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376006021	6006.02	2670	-5.47E-07	-1.46E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376007021	6007.02	976	-4.01E-07	-3.91E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376007031	6007.03	2003	1.77E-07	3.55E-04	0.00E+00	0.00E+00	0.00E+00	3.55E-04
060376008011	6008.01	872	-2.42E-07	-2.11E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376008014	6008.01	881	-2.26E-07	-1.99E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376008021	6008.02	883	-2.09E-07	-1.85E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376009023	6009.02	1175	-9.21E-07	-1.08E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376009111	6009.11	1618	-4.25E-07	-6.88E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376009112	6009.11	1887	-5.12E-07	-9.65E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376009122	6009.12	2429	-5.54E-07	-1.35E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376010023	6010.02	1801	1.96E-07	3.54E-04	0.00E+00	0.00E+00	0.00E+00	3.54E-04
060376011003	6011	2032	-2.55E-07	-5.18E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376012021	6012.02	1736	2.98E-07	5.18E-04	0.00E+00	0.00E+00	0.00E+00	5.18E-04
060376012111	6012.11	1418	-1.34E-06	-1.90E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376012112	6012.11	1536	-8.74E-07	-1.34E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376013011	6013.01	825	-1.52E-06	-1.25E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376013012	6013.01	1179	-7.00E-07	-8.25E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376014012	6014.01	1542	-2.90E-07	-4.47E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376014021	6014.

Table 1-14. Residential Cancer Burden for 2035 With Project vs. 2035 Without Project Operations, 2035-2104

BKGPIDFP00	Census tract [1]	Estimated 2016 Population [2]	70-year Resident 2035 Cancer Risk [3]	Cancer Burden by Census Tract and Block	Cancer Burden for >= 1E-04 Zone	Cancer Burden for >= 1E-05 Zone	Cancer Burden for >= 1E-06 Zone	Cancer Burden for >= 1E-07 Zone
060376028011	6028.01	3276	-6.16E-07	-2.02E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376200011	6200.01	1165	-1.76E-06	-2.06E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376200012	6200.01	1345	-9.07E-07	-1.22E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376200013	6200.01	1617	-1.53E-06	-2.48E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376200021	6200.02	2255	-5.93E-07	-7.44E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376200022	6200.02	1407	-7.24E-07	-1.02E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376200023	6200.02	1116	-7.65E-07	-8.54E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376201011	6201.01	1462	-1.09E-06	-1.59E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376201012	6201.01	2069	-6.92E-07	-1.43E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376201013	6201.01	2148	-1.04E-06	-2.24E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376201021	6201.02	1057	-6.19E-07	-6.54E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376201023	6201.02	1978	-5.23E-07	-1.03E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376725015	7025.01	711	-3.65E-07	-2.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376726001	7026	2124	-2.88E-07	-6.09E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376726002	7026	1039	-3.84E-07	-3.99E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376726003	7026	938	-5.31E-07	-4.98E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376726004	7026	1604	-9.90E-07	-1.59E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376726005	7026	761	-6.03E-07	-4.59E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376727001	7027	861	-4.05E-07	-3.49E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376727004	7027	1053	-4.12E-07	-4.34E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376728011	7028.01	2686	-8.97E-07	-2.41E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376728012	7028.01	1352	-3.66E-07	-4.95E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376728022	7028.02	1331	-4.28E-07	-5.69E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376730013	7030.01	1768	-3.46E-07	-6.12E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376730021	7030.02	1500	-7.44E-07	-1.12E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376730022	7030.02	1212	-5.61E-07	-6.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376730023	7030.02	2455	-7.64E-07	-1.88E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376730024	7030.02	1746	-4.80E-07	-8.38E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376731001	7031	725	-3.69E-07	-2.68E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376731006	7031	673	-4.15E-07	-2.79E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376732005	7032	1099	-3.97E-07	-4.36E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060376732006	7032	1109	-3.68E-07	-4.08E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
060379800131	9800.13	62	-9.01E-07	-5.56E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00

[1] Census tract was matched to air model grid points identified as residential/commercial.

[2] The 2016 population is estimated from the 2010 census population number by multiplying by the ratio of the total 2016 LA County Population number to the total 2010 LA County Population (1.046581968748407). Population numbers are not available (N/A) for construction grid points identified as sensitive receptors and included in the residential category.

[3] Cancer Risk is based on the sum of exposure to unmitigated construction and operations at a grid point. When multiple grid points are located within a census tract the risk is the average of risk at within the census tract.

4 Total cancer burden is the sum of individual census tract cancer burdens.

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Cumulative Analysis

1-15 Chronic Non-Cancer Health Hazards

1-16 Acute Non-Cancer Health Hazards

Table 1 -15. Cumulative Chronic Non-Cancer Health Hazards using National-Scale Air Toxics Assessment (NATA) tables from 2011

	ACROLEIN		CHLORINE		COBALT COMPOUNDS		FORMALDEHYDE		MANGANESE COMPOUNDS		NICKEL COMPOUNDS		DIESEL PM	
BKGPIDFP00	Sum of Total Concentration	Sum of Total Respiratory HI	Sum of Total Concentration	Sum of Total Respiratory HI	Sum of Total Concentration	Sum of Total Respiratory HI	Sum of Total Concentration	Sum of Total Respiratory HI	Sum of Total Concentration	Sum of Total Neurological	Sum of Total Concentration	Sum of Total Respiratory HI	Sum of Total Concentration	Sum of Total Respiratory HI
060376206300	0.086790422	3.92093826E5	0.018044761	0.101361534	9.63267E-05	0.000640983	3.04615067E6	6.293783184	0.00133826	0.001966778	0.002261484	0.010379197	2.54456652	6.229332294
060376207900	0.089558173	3.9355872E5	0.018628042	0.087345121	0.000100445	0.000667846	3.11908127E6	6.289288787	0.001701061	0.002355932	0.002429104	0.010829574	2.60344242	6.229506788
060376218120	0.049272448	2.20456525E5	0.010435775	0.081826411	5.41382E-05	0.000509654	2.34598733E6	4.729111477	0.001016264	0.001275956	0.00156273	0.00596253	1.46964753	3.152735575
060376218210	0.057543308	2.57813835E5	0.016795472	0.095923347	6.08813E-05	0.000502136	2.34168559E6	5.229955538	0.000742182	0.00106789	0.001225664	0.005906627	1.645911619	5.158922488
060376218220	0.051587897	2.43054E5	0.015059564	0.085995296	5.23741E-05	0.000556196	2.29716987E6	5.227584719	0.000694196	0.001056512	0.001137803	0.005860567	1.540352454	4.149893521
060376218400	0.068083661	3.04363511E5	0.017367259	0.098612388	6.45187E-05	0.000715345	2.45026059E6	5.239701249	0.000818836	0.001198079	0.001295753	0.006403691	2.692373899	6.262355082
060376218500	0.064282434	2.94554321E5	0.016731801	0.0989651	6.22536E-05	0.000506471	2.39950231E6	5.237185322	0.000769487	0.001131855	0.001242069	0.006139657	2.448925076	6.224204212
060376218600	0.060964123	2.80147363E5	0.01615008	0.09673944	6.24993E-05	0.000502876	2.36682353E6	5.233526499	0.000749978	0.001092068	0.001225963	0.006055709	2.444283555	6.211702962
060376218800	0.058680144	2.604802155	0.015025978	0.08587886	6.34029E-05	0.000509266	2.43715568E6	5.238142953	0.000720392	0.001065788	0.00119513	0.005891462	2.915230618	6.282847552
060376219010	0.045876562	2.070724025	0.012736226	0.079232135	0.000062263	0.000508287	2.20853631E6	5.218341601	0.000626086	0.000949767	0.001026504	0.005256434	1.357741982	3.146294402
060376219020	0.047676585	2.192825155	0.013408315	0.077458619	0.000062382	0.000506131	2.21522171E6	5.210624963	0.000622204	0.000922204	0.001025289	0.005041162	1.33194158	3.138422357
060376219300	0.058754428	2.632447085	0.015420597	0.089362818	6.20311E-05	0.000509756	2.24796231E6	5.223538926	0.000714504	0.001092159	0.001209315	0.006242343	1.431635923	3.156269802
060376219500	0.06586192	3.067821815	0.016688926	0.097197793	6.1918E-05	0.000499704	2.15342932	5.213665031	0.000695073	0.001010791	0.001181364	0.005763723	1.274269198	3.159587767
060376219700	0.053176552	2.424406885	0.013723703	0.086044495	6.33787E-05	0.000512011	2.25833687E6	5.223904424	0.000771542	0.001073871	0.001178086	0.005844201	1.583050963	3.172057041
060376219800	0.059619006	2.617307105	0.015015587	0.086337826	6.2991E-05	0.000514382	2.34528303E6	5.228945322	0.000742763	0.001032738	0.001206377	0.006026599	1.978664902	5.19070409
060376219902	0.058866634	2.65585328	0.013990213	0.079543369	6.93887E-05	0.000536469	2.38165644E6	5.233851387	0.00083656	0.001193929	0.001318794	0.006255568	1.585785239	3.152450911
060376220000	0.055654214	2.535526515	0.014238658	0.084896357	6.19189E-05	0.000513308	2.26984862E6	5.224909112	0.000706894	0.001022403	0.001160268	0.005504201	1.384642482	3.173637919
060376220100	0.05077867	2.32949681	0.012741793	0.07362569	6.38055E-05	0.000514762	2.23150935E6	5.221564204	0.000687748	0.000997839	0.001089007	0.005338444	1.282058675	3.134556221
060376221120	0.05369303	2.4222378	0.013543143	0.087895425	6.94831E-05	0.000536076	2.44692038E6	5.239899425	0.000832334	0.001152824	0.001326383	0.00626039	1.967707595	5.182550044
060376221210	0.050879618	2.29838575E5	0.013241868	0.081825356	6.35777E-05	0.000512011	2.25833687E6	5.223904424	0.000771542	0.001073871	0.001178086	0.005844201	1.583050963	3.172057041
060376221302	0.050922907	2.301740485	0.013497191	0.084929986	6.62082E-05	0.000517882	2.37791748E6	5.233922188	0.000743555	0.001069584	0.001222025	0.005891482	1.850851166	4.184853133
060376221401	0.049996648	2.289671555	0.012628014	0.079232747	6.19788E-05	0.000507204	2.33927728E6	5.233211459	0.000701995	0.001012301	0.001150149	0.005499414	1.796903468	4.061276104
060376221500	0.049130159	2.221670205	0.013122987	0.07586489	6.4522E-05	0.000503222	2.33344513E6	5.230026163	0.000719583	0.000996428	0.001145787	0.005147531	1.703097854	3.858659584
060376221810	0.054411695	2.5057286	0.015695692	0.089915871	6.40251E-05	0.000523094	2.32228226E6	5.228978706	0.000716565	0.001024387	0.001188363	0.005730856	1.687844849	4.051862109
060376221900	0.057227751	2.632640415	0.016465554	0.094357887	6.73778E-05	0.000531355	2.38116589E6	5.233426131	0.000770298	0.001104972	0.001224572	0.005820303	1.671716568	3.956328868
060376222001	0.048088459	2.16007011	0.012939185	0.073821504	6.24503E-05	0.000503654	2.22436384E6	5.219215674	0.000693763	0.000993067	0.001041765	0.004954966	1.451824387	3.145372965
060376222003	0.048044637	2.20848555	0.013533558	0.07874238	6.2035E-05	0.000503948	2.19150012E6	5.217045418	0.000633136	0.000914579	0.001041107	0.005068893	1.377038512	3.143114597
060376222100	0.052045052	2.34325799	0.013583065	0.076020344	6.45182E-05	0.000509955	2.26203985E7	5.221923659	0.000650165	0.000940916	0.001059463	0.005019857	1.463895572	3.142597389
060376222200	0.050547209	2.29876086	0.014280485	0.082156463	0.000064699	0.000514625	2.27526405E6	5.224073863	0.000685717	0.00100106	0.001114415	0.005536368	1.546913267	3.156485553
060376222300	0.048676411	2.202640035	0.013343845	0.076488868	6.2821E-05	0.000510359	2.19950708E6	5.216814184	0.000643581	0.000946294	0.001046201	0.005177383	1.382026229	3.141023678
060376224010	0.059335527	2.713062435	0.016472808	0.083834543	6.55589E-05	0.000520864	2.23507817E6	5.220793858	0.000679242	0.000979837	0.001114425	0.005414977	1.482730568	3.156918865
060376222700	0.061892983	2.492793395	0.013929055	0.067322679	9.22051E-05	0.000677497	2.4258842E7	5.227342208	0.000943944	0.001179055	0.001254879	0.004992626	2.284811879	5.191040361
060376224010	0.086129842	3.92367211	0.018151103	0.104399955	8.96026E-05	0.000612324	2.95143806E7	6.387082315	0.001275483	0.001778219	0.001703761	0.007147036	3.345707159	7.929133778
060376224020	0.079532478	3.247953945	0.016450903	0.093217477	8.28943E-05	0.000595842	2.69895412E7	5.258621603	0.001207219	0.001674317	0.001577473	0.006642421	2.702037643	6.253272635
060376224420	0.078085784	3.53056308E5	0.018746033	0.110115069	6.79094E-05	0.000555476	2.67173096E6	5.260115592	0.000950199	0.001368375	0.001555123	0.007489448	3.565003033	8.345330958
060376224600	0.066355192	2.94890664	0.01587302	0.092142637	8.20311E-05	0.00060091	2.56655425E6	5.249226773	0.000890908	0.001283761	0.001578586	0.00763284	2.373145943	5.23535849
060376224760	0.075005272	3.46073E5	0.018522428	0.108177356	7.38958E-05	0.000547669	2.63508223E6	5.258165629	0.000896506	0.001226545	0.001466649	0.007092824	2.639642837	6.250979494
060376226420	0.059166032	2.66648692	0.016433534	0.095501162	7.98888E-05	0.000581598	2.46523975E7	5.240477557	0.000852107	0.001251668	0.00155983	0.007656176	1.836411886	4.183921817
060376227600	0.058485637	2.583937385	0.015758595	0.090522097	8.03685E-05	0.000573678	2.44770745E6	5.236935661	0.000838928	0.001154903	0.001353963	0.007147789	1.790863859	4.173889105
060376227910	0.06416985	2.837229755	0.017262857	0.099728287	8.7254E-05	0.000611688	2.62281861E6	5.251218865	0.000916721	0.001279766	0.001863655	0.008647587	1.926642912	4.518430308
060376228100	0.063388074	2.807762145	0.014931057	0.084840094	8.53034E-05	0.000595625	2.58257155E6	5.248563792	0.00097944	0.001317297	0.001842839	0.008576069	1.865923807	4.369159597
060376228210	0.05539016	2.47351165	0.014557426	0.09039974	7.37191E-05	0.000559278	2.38165642E6	5.232177904	0.000779375	0.001132235	0.001518604	0.007184163	1.658023963	3.881504195
060376228310	0.05768599	2.59100151	0.015144591	0.085786365	7.4072E-05	0.000560856	2.40673897E6	5.234661337	0.000814376	0.001153995	0.001586922	0.007506928	1.69991007	3.967080423
060376228410	0.057744495	2.56557782	0.016020167	0.091457539	7.51836E-05	0.000560781	2.39807398E6	5.233135805	0.000804556	0.001143683	0.001471536	0.00697408	1.852278829	4.317095747
060376228420	0.057182356	2.539664085	0.01602847	0.09112569	6.98082E-05	0.000537953	2.35496969E6	5.231091788	0.000765183	0.001078198	0.001342931	0.006427851	1.598905145	4.195703139
060376228500	0.056153119	2.53470308	0.015549789	0.090431352	7.0806E-05	0.000536541	2.33322150E6	5.228696569	0.000778793	0.001103917	0.001358999	0.00651453	1.770589882	4.179509273
060376228600	0.053758168	2.43346121	0.015226956	0.089153569	7.07888E-05	0.000544282	2.31360397E6	5.227196931	0.000775143	0.001095763	0.001389201	0.006733217	1.60367723	4.162348617
060376228720	0.054770309	2.455006915	0.015300122	0.088812303	7.66577E-05	0.000559237	2.36364802E6	5.230659002	0.000798061	0.001128965	0.001420576	0.006885744	1.594845762	4.172028817
060376228800	0.059734666	2.638216385	0.016446353	0.083486152	8.5426E-05	0.000588946	2.49471509E7	5.240367595	0.000919854	0.001250298	0.001857916	0.008458444	1.677582218	4.160306092
060376229100	0.056227612	2.483831935	0.014786525	0.084013147	8.03911E-05	0.000568874	2.38073580E7	5.231293465	0.000835759	0.001127214	0.001734557	0.007791329	1.583380435	3.956154885
060376229200	0.055832159	2.475921165	0.015574626	0.09039974	7.37191E-05	0.000559278	2.38165642E6	5.232177904	0.000779375	0.001132235	0.001518604	0.007184163	1.658023963	3.881504195
060376229300	0.054774273	2.441483614	0.014955388	0.086579818	7.1245E-05	0.000536346	2.29702646E6	5.224782469	0.000745959	0.00104792	0.001419644	0.006614802	1.735625398	4.161587347
060376229410	0.056317959	2.50145118	0.014222461	0.081892185	7.89877E-05	0.000554871	2.34704643E6	5.22834637	0.000812151	0.001072897	0.002902605	0.010884497	1.692783317	4.156238219
060376229420	0.055786701	2.46337444	0.014021854	0.085593771	7.81566E-05	0.000549305	2.32706479E6	5.221651699	0.000802075	0.001059133	0.002802375	0.010643924	1.654234194	4.145678552
060376231100	0.062187688	2.757505365	0.014924524	0.08124555	7.89558E-05	0.000558783	2.45810626E6	5.238567105	0.000851392	0.001264018	0.001562908	0.007676288	2.247196435	5.219278972
060376231300	0.048439551	2.185379145	0.013636844	0.07914715	0.00006342	0.000501102	2.18269920E6	5.215130949	0.000642025	0.000936501	0.001056352	0.005179764	1.328222173	3.138402275
060376231400	0.047969608	2.164899153	0.013499153	0.078678769	6.2867E-05	0.000497353	2.16744316E6	5.208229439	0.000625705	0.000913284	0.001044749	0.005127744	1.59484573	4.154028267
060376231500	0.047495973	2.159814445	0.012285526	0.077554428	6.2654E-05	0.000504467	2.14212462E6	5.211866552	0.000625513	0.000886733	0.001030305	0.004852247	1.223152829	3.132052062
060376231600	0.04932945	2.25481161	0.013103486	0.075601596	6.48861E-05	0.000515331	2.18753701E6	5.216310218	0.000651272	0.000945948	0.001073646	0.00525191	1.334089847	3.136257864
060376231710	0.053989656	2.479329177	0.014428847	0.08427362	7.08417E-05	0.000552682	2.24720261E6	5.217705961	0.000714756	0.001021044	0.001156355	0.005886333	1.516883339	3.956328868
060376231720	0.063020905	2.698835685	0.015834187	0.086646431	6.72715E-05	0.000542517	2.39754895E6	5.230443731	0.000765593	0.001058861	0.001267177	0.006037209	2.366221503	6.221582018
060376231900	0.064727627	2.767440104	0.016255405	0.089450699	6.96808E-05	0.000557203	2.44917594E6	5.234955991	0.000789141	0.001090389	0.001314224	0.006263992	2.641743252	6.270821897
060376231960	0.063106229	2.800226175	0.015769473	0.094532878	6.7541E-05	0.000528235	2.38457402E6	5.230576776	0.000770961	0.001065753	0.001284418	0.006387651	2.507931353	6.237298341
060376232110	0.051897353	2.349404195	0.013089476	0.075400254	6.57958E-05	0.000515867	2.21527167E6	5.218561907	0.000680685	0.000949416	0.001151394	0.00544227	1.506929914	3.952709444
060376232210	0.059818313	2.654226455	0.014922305	0.086139005	7.62784E-05	0.000553959	2.42567613E6	5.232072529	0.000822359	0.001076232	0.001307233	0.006172435	2.124671452	5.124950724
060376232200	0.049560462	2.253513385	0.012606779	0.073310369	6.4533E-05	0.000515022	2.17631843E6	5.215045077	0.000659518	0.000944774	0.001081703	0.00525451	1.303522351	3.113871211
060376232300	0.049540857	2.26730309	0.012665362	0.07341862	6.56192E-05	0.000516142	2.16604761E6	5.210143776	0.000656591	0.00092975	0.001103639	0.005320528	1.280400478	3.131342841
060376232400	0.048934626	2.224114775	0.012414775	0.072145755	6.4256E-05	0.000510152	2.15385138E6	5.207886324	0.000651232	0.000916564	0.001088361	0.005251808	1.274591462	3.123367408
060376232500	0.051422789	2.32683527	0.012580273	0.072181641	0.00006735	0.000523274	2.17884320E6	5.210845867	0.000684595	0.000951124	0.001200182	0.005582919	1.202771585	3.11733407
060376232600	0.052067144	2.324205385	0.013099385	0.076596226	6.92326E-05	0.000523208	2.20987846E6	5.212740146	0.000703159	0.000955775	0.001260334	0.005815306	1.342480187	3.138297054
060376232700	0.059624601	2.727243407	0.014888373	0.086756653	7.77204E-05	0.000566763	2.50134873E6	5.231810467	0.000940429	0.001281567	0.001660108	0.007660139	2.241510645	5.284128103
060376234000	0.049633955	2.267098115	0.013221306	0.076065648	6.1685E-05	0.000502969	2.14847354E7	5.212821154	0.000627998	0.000900299	0.001012134	0.004909762	1.212859494	3.120492965
060376234200	0.060802531	2.688609605	0.016004728	0.090958543	0.00006198	0.000571596	2.59512325E6	5.215284229	0.000740886	0.001081293	0.001217121	0.005975591	1.732746221	4.137376412
060376234300	0.068829329	3.042159084	0.017593885	0.098155645	7.2189047E-05	0.000659152	2.91189403E6	5.215315386	0.000852162	0.001239662	0.001551858	0.007615768	2.129407763	5.123367744
060376234502	0.064668698	2.935883143	0.014808704	0.085716533	6.2660E-05	0.000508341	2.18745486	5.216172439	0.00073294	0.001053365	0.001169438	0.005650866	1.282130411	3.125512708
060376234600	0.072345253	3.266549905	0.014101587	0.082422336	6.38385E-05	0.000509603	2.16121187E6	5.211660279	0.000754431	0.001054488	0.001177991	0.005659508	1.209402509	3.126356689
060376234700	0.079184386	3.615903795	0.015583346	0.091139763	6.40043E-05	0.000519482	2.22603985E6	5.231579613	0.000815186	0.001298319	0.001455452	0.006881078	1.867653353	4.489722757
060376234901	0.084313839	3.69140221	0.017456284	0.101002449	6.68426E-05	0.000522001	2.28920845E6	5.221999018	0.000835309	0.001163564	0.00140117	0.006509036	1.397057754	3.133916074
060376234902	0.083750835	3.75193574	0.017157735	0.100314657	6.58474E-05	0.000521598	2.26345768	5.22130236	0.000813391	0.001157831	0.001352115	0.006534644	1.36324521	3.116358669
060376235100	0.078087295	3.535352449	0.015381557	0.088136247	6.4023E-05	0.000508412	2.15280672E6	5.212302272	0.000773231	0.001098239	0.001276729	0.005918144	1.254302204	3.095937476
060376235201	0.08259428	3.73558584	0.014997726	0.086571508	6.70835E-05	0.000524718	2.19450095	5.216105646	0.000831906	0.001160597	0.001251455	0.005980923	1.246107247	3.128452594
060376235202	0.088199102	3.866386	0.015559952	0.090932867	6.82065E-05	0.000535698	2.23750011E6	5.219409575	0.000847373	0.001184259	0.001284178	0.006224086	1.284139227	3.128650817
060376236000	0.05933606	2.611881005	0.012719225	0.076079985	6.42361E-05	0.000498296	2.09794847E6	5.209033963	0.000632323	0.000902373	0.000945523	0.004579194	1.236577237	3.092733495
060376236100	0.068965616	3.12885028	0.017330686	0.102477761	6.11805E-05	0.000502411	2.17700445E6	5.213565624	0.000742983	0.001085568	0.001225936	0.005969071	1.217661035	3.124673915
060376236202	0.067733197	3.057261165	0.020015619	0.116381193	0.00006094	0.000496741	2.18269558	5.217008763	0.000748463	0.001092007	0.001230427	0.005975594	1.347283824	3.141765797
060376236203	0.069248721	3.144215325	0.019554129	0.113604576	5.9704E-05	0.000495061	2.21368645E5	5.217485607	0.000714951	0.001037209	0.001269649	0.006202036	1.432111813	3.142758152
060376236400	0.065814094	3.024978815	0.014405974	0.083468287	6.0911E-05	0.000503756	2.10798891E6	5.208688854	0.000656252	0.001018259	0.001072048	0.005669237	1.202124813	3.135376364
060376237101	0.054479275	2.474693485	0.012967794	0.075219077	6.8623E-05	0.000533114	2.23372383E6	5.220278437	0.000732859	0.001053962	0.001270367	0.006157594	1.48709499	3.154384696
060376237201	0.055052591	2.449989575	0.01329939	0.075509883	7.3003E-05	0.000542975	2.25955142E6	5.221220141	0.000765686	0.001106082	0.001329443	0.006882108	1.576443078	4.140104386
060376237300	0.059867786	2.703715995	0.013408983	0.077538971	6.9587E-05	0.000539353	2.18422866	5.217592702	0.000729116	0.001091973	0.001189901	0.006162951	1.206342943	3.126812221
060376237402	0.054377935	2.432384669	0.012363781	0.071328754	0.00006875	0.000535698	2.18457329E7	5.214891404	0.000704935	0.001044633	0.001147961	0.005721079	1.28811075	3.130710974
060376237500	0.056426528	2.550894695	0.013556716	0.078860346	6.88052E-05	0.000524598	2.21965052E6	5.219875396	0.000730131	0.001089543	0.001196071	0.005531166	1.566562664	4.183533825
060376237600	0.068226938	3.124097015	0.015973479	0.091863951	6.98759E-05	0.000537411	2.37487916E6	5.234363374	0.000782973	0.001147653	0.001302681	0.006454601	2.798972922	6.282236141
060376237710	0.067033313	2.96152958	0.015041566	0.088894464	7.02882E-05	0.000533014	2.32841923E6	5.227901675	0.000780023	0.001108508	0.00121648	0.005899603	2.432013655	6.224913979

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Table 1 -15. Cumulative Chronic Non-Cancer Health Hazards using National-Scale Air Toxics Assessment (NATA) tables from 2011

	ACROLEIN		CHLORINE		COBALT COMPOUNDS		FORMALDEHYDE		MANGANESE COMPOUNDS		NICKEL COMPOUNDS		DIESEL PM	
BKGPIDFP00	Sum of Total Concentration	Sum of Total Respiratory HI	Sum of Total Concentration	Sum of Total Respiratory HI	Sum of Total Concentration	Sum of Total Respiratory HI	Sum of Total Concentration	Sum of Total Respiratory HI	Sum of Total Concentration	Sum of Total Neurological	Sum of Total Concentration	Sum of Total Respiratory HI	Sum of Total Concentration	Sum of Total Respiratory HI
060376237720	0.068576099	3.05986081	0.015355513	0.089300769	6.92457E-05	0.000532309	2.33639473E6	5.229093978	0.000782511	0.001097698	0.001211533	0.005772372	2.417043984	6.240883554
060376237800	0.066978832	2.96817182	0.014931131	0.087345121	6.82049E-05	0.000536241	2.16312109E6	5.214069155	0.000729412	0.001066159	0.001162308	0.005408728	1.304578267	3.141578546
060376237900	0.067722909	3.0013E5	0.015108311	0.088236417	6.91132E-05	0.000534744	2.19744018E6	5.215773775	0.000744335	0.001064083	0.001211545	0.005457072	1.233865304	3.13361991
060376238000	0.10434037	4.597005675	0.013369774	0.075785602	7.25495E-05	0.000542951	2.30373387E6	5.226464343	0.000936519	0.001278165	0.001232707

Table 1 -15. Cumulative Chronic Non-Cancer Health Hazards using National-Scale Air Toxics Assessment (NATA) tables from 2011

	ACROLEIN		CHLORINE		COBALT COMPOUNDS		FORMALDEHYDE		MANGANESE COMPOUNDS		NICKEL COMPOUNDS		DIESEL PM	
BKGPIDFP00	Sum of Total Concentration	Sum of Total Respiratory HI	Sum of Total Concentration	Sum of Total Respiratory HI	Sum of Total Concentration	Sum of Total Respiratory HI	Sum of Total Concentration	Sum of Total Respiratory HI	Sum of Total Concentration	Sum of Total Neurological	Sum of Total Concentration	Sum of Total Respiratory HI	Sum of Total Concentration	Sum of Total Respiratory HI
060372774400	26.76543556	11.4414578	0.01151848	0.066800177	7.17236E-05	0.000536974	2.88587836	0.274261634	0.000827347	0.001181327	0.001239324	0.005981368	1.315460773	0.150817193
060372783001	26.67124398	9.509732035	0.01156865	0.068833697	0.000606362	0.00351037	2.865277578	0.259768708	0.001716593	0.001020564	0.001087973	0.005216761	1.488226451	0.169150781
060372781024	0.074950344	2.747083235	0.01931679	0.186178205	5.96808E-05	0.000495784	1.825368696	0.161265497	0.000532398	0.000750612	0.000893745	0.004193407	1.130874175	0.131144745
060372791110	0.050740927	2.28559624	0.01456885	0.084348848	9.00081E-05	0.000609849	2.034611933	0.20823648	0.000795742	0.001093559	0.001134237	0.006335568	2.231580598	0.223585179
060372791230	0.051184091	2.310255779	0.01448982	0.084348848	0.000560593	0.003541204	2.07877521	0.209702915	0.000729268	0.001027941	0.001025743	0.005707343	2.009419456	0.201452693
060372791330	0.046023624	2.040649345	0.01432639	0.081193543	0.000103146	0.000656674	2.082636138	0.202794627	0.001036393	0.001386855	0.001765643	0.007859097	2.087700592	0.191641512
060372791420	0.048935563	2.172559435	0.01605543	0.091775215	0.000595464	0.00655219	2.05180243	0.199594165	0.001162111	0.001636764	0.001602459	0.007554087	2.631624792	0.242702555
060372792700	0.063261676	2.798804616	0.01374383	0.078431185	0.000611799	2.56704828	0.246923494	0.000926068	0.001272941	0.002507343	0.003441956	0.016392621	1.824992651	0.181899281
060372732900	0.057825656	2.5878442	0.01310555	0.075137345	7.96319E-05	0.000581267	2.352812717	0.229969904	0.000829225	0.001179187	0.001554995	0.007418691	1.555337503	0.15710279
060372733001	0.058739039	2.685157251	0.01315783	0.076099906	8.17688E-05	0.000597367	2.394337817	0.235320709	0.00083751	0.001178685	0.001574337	0.007345891	1.653730587	0.166279979
060372735001	0.059278723	2.664577932	0.01347048	0.077137328	8.29738E-05	0.000607662	2.436945535	0.237900978	0.001166568	0.001641897	0.001599249	0.007463569	1.583894655	0.159326487
060372735002	0.060424586	2.707676564	0.01283603	0.073754623	7.88767E-05	0.000575601	2.36142717	0.230609092	0.000855495	0.001248247	0.001427668	0.006981226	1.630213012	0.164510539
060372735101	0.064369557	2.82780737	0.01349307	0.076363039	7.94726E-05	0.000572355	2.383966848	0.231869121	0.000874772	0.001224119	0.001390661	0.00659601	1.825333207	0.187629721
060372735102	0.063387763	2.794709745	0.01357681	0.076961986	8.01393E-05	0.000577635	2.401961998	0.233144727	0.000863161	0.001177673	0.001403455	0.006657433	1.786253374	0.183512405
060372735200	0.060587128	2.72822936	0.01212467	0.069698159	7.89688E-05	0.000573159	2.24911072	0.221241295	0.000836474	0.001221121	0.001207125	0.006104821	1.52647141	0.15663343
060372735300	0.051927267	2.371256645	0.01208145	0.069478642	7.10913E-05	0.000515549	2.205135307	0.217000973	0.000727844	0.001062459	0.001048737	0.005306153	1.329009602	0.136423788
060372740800	0.042085079	1.89128296	0.01233066	0.071210489	0.000100018	0.00066987	1.949581683	0.192013913	0.000794656	0.001130583	0.001532041	0.007857598	1.513972407	0.154516552
060372740901	0.046044061	2.09100556	0.01316452	0.075858666	9.24272E-05	0.000614193	1.984035049	0.195796869	0.000783672	0.001027375	0.001322998	0.005935996	1.818773478	0.182520541
060372741002	0.044624781	1.988116846	0.01316692	0.075860598	9.24272E-05	0.000614122	1.973516927	0.194696295	0.000786763	0.001035444	0.001328437	0.00596137	1.45404412	0.136514989
060372741001	0.042654571	1.911021745	0.01374197	0.079112497	0.000102211	0.00068303	2.027360223	0.200203601	0.001262804	0.001662853	0.002025404	0.009097254	1.586793901	0.145025983
060372741002	0.03903317	1.73226708	0.01252664	0.070097801	0.000106798	0.000684289	2.036924016	0.198916198	0.001450961	0.002023592	0.001801412	0.008160709	1.661678539	0.154212332
060372741100	0.038628701	1.787782815	0.01227845	0.067912788	0.000721796	0.004624693	1.990204923	0.196779991	0.001031875	0.001430361	0.001778667	0.008751813	1.318831627	0.123954473
060372741200	0.039574523	1.808436314	0.01232719	0.072026149	0.001102037	0.006997648	1.963230938	0.194198112	0.000905167	0.001229849	0.001559336	0.007512514	1.337987482	0.133730135
060372741300	0.040046771	1.798648655	0.01249455	0.072503048	0.000116534	0.000730233	1.954763408	0.192619052	0.000854972	0.001244186	0.002156864	0.008962714	1.400085278	0.139562275
060372742800	0.037591415	1.708228284	0.01230107	0.071402562	0.000114814	0.000719184	1.933644527	0.190480269	0.000961306	0.001377751	0.001420675	0.006739447	1.281389417	0.129964422
060372742900	0.041521354	1.74207008	0.01152678	0.067011814	0.000110929	0.000723693	1.958421642	0.190673402	0.001014723	0.001351771	0.001352764	0.006267461	1.277385014	0.129730985
060372743000	0.037257727	1.71104921	0.01226588	0.070765993	0.000114875	0.00072078	1.967273568	0.194072217	0.001084906	0.001500853	0.001541585	0.007063011	1.318070829	0.126100106
060372743100	0.041088182	1.889135666	0.01227845	0.070765993	0.000118929	0.000747253	2.012405464	0.201743282	0.001109297	0.001536928	0.001641598	0.007519772	1.360368384	0.130447145
060372800100	0.07097408	3.178084255	0.01387949	0.079109456	7.21006E-05	0.000544457	2.292685552	0.225189943	0.00079441	0.001142408	0.001351658	0.005560484	1.49002504	0.146930831
060372800201	0.073061113	3.255052205	0.01269369	0.071949929	7.34549E-05	0.000546982	2.277122983	0.223470879	0.000809939	0.001141416	0.001159916	0.005348378	1.442976576	0.144911238
060372800202	0.078013097	3.480116846	0.01371932	0.077787271	7.48504E-05	0.000557222	2.364116555	0.231908766	0.000825107	0.001163846	0.001198766	0.005543878	1.497227771	0.150355468
060372800302	0.101524177	4.487203175	0.01473012	0.080545438	7.58841E-05	0.000560008	2.300522437	0.225520458	0.001033772	0.001432935	0.001368844	0.006475531	1.785735234	0.174568468
060372600301	0.073267796	3.243836297	0.01425133	0.08148085	7.72909E-05	0.000558415	2.304835424	0.225940761	0.000919688	0.001253606	0.001265324	0.005837863	1.874821904	0.186494805
060372600304	0.072777601	3.232317431	0.01407432	0.080317375	7.85348E-05	0.000574166	2.353144727	0.230882039	0.000927999	0.001380424	0.001274602	0.005875813	1.818831627	0.181009453
060372600400	0.113454417	5.100619975	0.01482562	0.084842014	7.52817E-05	0.000545216	2.336300373	0.228636893	0.001024309	0.001363776	0.001370308	0.006323768	1.759108206	0.181363745
060372600501	0.101027532	5.251837475	0.01426355	0.082369544	7.50320E-05	0.000545212	2.359973502	0.228954376	0.001044454	0.001391236	0.001396777	0.006444299	1.847995722	0.190510980
060372600502	0.144393777	6.595529675	0.01622964	0.093937853	7.75368E-05	0.000559154	2.609176451	0.252044839	0.001174204	0.001559428	0.001621617	0.007481687	1.400669736	0.136790119
060372600601	0.102628731	5.362888676	0.01379076	0.079741103	0.000077231	0.00054651	2.327503835	0.224778983	0.000949121	0.001345055	0.001281851	0.006234434	1.462320072	0.135712723
060372600602	0.129111156	6.547381354	0.01458155	0.084282258	0.000077231	0.00054651	2.362431512	0.228022189	0.001128288	0.001598429	0.001524287	0.007411831	1.534388231	0.140966887
060372600702	0.118855077	6.02476654	0.01232419	0.073036973	7.10038E-05	0.000533594	2.292646409	0.221448941	0.000878395	0.001217397	0.001215582	0.005838741	1.327171861	0.138671785
060372600703	0.123853439	5.450467545	0.01469537	0.086149601	0.000125691	0.00053249	2.40278454	0.236434604	0.000884873	0.001232102	0.001258699	0.006447916	1.923948599	0.182172227
060372600704	0.112716472	5.029881554	0.01474562	0.086491253	0.000125691	0.00053249	2.324439313	0.228603978	0.001078708	0.001566569	0.001548197	0.007929576	1.617441911	0.153059383
060372600801	0.096067453	4.357121005	0.01489042	0.085489061	8.85074E-05	0.00052429	2.248084433	0.221649731	0.000855451	0.001203522	0.001238794	0.006233308	1.448978441	0.159994108
060372600802	0.09661089	4.60271011	0.01317413	0.077337659	8.76546E-05	0.00052188	2.23675335	0.22281373	0.000828384	0.00117909	0.001193079	0.005768393	1.418496749	0.161352663
060372600902	0.101626951	4.631853803	0.01375893222	0.080396544	7.52820E-05	0.000552263	2.369739532	0.228954336	0.000885697	0.001205907	0.001254954	0.006139373	1.494945436	0.166393977
060372600911	0.09077383	4.07949892	0.01472205	0.084119029	6.60275E-05	0.00052663	2.251916823	0.22153409	0.000782533	0.001164879	0.001257997	0.006282762	1.286535688	0.140361888
060372600912	0.086807456	3.976855635	0.01406269	0.080393735	6.63674E-05	0.00051402	2.208482527	0.217083044	0.00078225	0.001153262	0.001231161	0.006229411	1.250577771	0.127205192
060372601001	0.119137298	5.276700229	0.01474562	0.084282258	0.000125691	0.00053249	2.414341326	0.235125217	0.000955297	0.001328987	0.001421587	0.006771831	1.535438823	0.155106807
060372601002	0.14089258	6.24873563	0.01586207	0.091395845	9.35068E-05	0.00053511	2.506783245	0.242514544	0.000940821	0.001341315	0.001400211	0.006763189	1.651822086	0.157253511
060372601100	0.159877951	8.847587515	0.01526976	0.087466615	7.15898E-05	0.000552366	2.547449244	0.244189462	0.000961169	0.001311796	0.001390725	0.006493066	1.483532B	0.151751699
060372601201	0.181423728	7.803364553	0.01729858	0.099052537	8.88231E-05	0.000594951	2.563402312	0.245738423	0.000966119	0.001319076	0.001399205	0.006529514	1.594703744	0.166923578
060372601211	0.145827385	6.513908359	0.01580405	0.091510497	6.98083E-05	0.00054235	2.592444062	0.252150671	0.000998461	0.001422237	0.001674693	0.008023534	2.026492997	0.213589508
060372601212	0.158152514	6.849309215	0.01543984	0.088199162	6.98281E-05	0.00053042	2.567470097	0.245820556	0.000928732	0.001287859	0.001411265	0.006727955	1.647605249	0.167605503
060372601301	0.090142498	3.96777527	0.01368428	0.078183589	6.03577E-05	0.00045954	2.223608673	0.213040977	0.000754476	0.001045736	0.001153504	0.005496145	1.515306	0.154153276
060372601303	0.106581806	4.6957916	0.01841980B	0.105895239	6.54779E-05	0.00050234	2.383381051	0.231881086	0.000842798	0.00123262	0.001494448	0.007457849	1.477452985	0.16239545
060372601401	0.172701886	7.134594605	0.01748776	0.088162679	7.14774E-05	0.00054308	2.723487986	0.256871295	0.001004876	0.001470234	0.001690813	0.007738436	2.065995168	0.223099821
060372601402	0.205107472	8.924417738	0.01593157	0.080842054	7.05399E-05	0.00053437	2.715963554	0.261329993	0.001002623	0.001274398	0.001475954	0.006752676	1.617441911	0.153059383
060372601502	0.217521639	8.871108228	0.01344039622	0.077989456	7.06188E-05	0.00054202	2.730876739	0.256020559	0.000946447	0.001299227	0.001361731	0.006403331	1.834861655	0.183656438
060372601601	0.206285937	8.776035925	0.01344039622	0.077989456	7.06188E-05	0.00054202	2.72823E-04	0.256020559	0.000946447	0.001299227	0.001361731	0.006403331	1.834861655	0.183656438
060372601700	0.168998245	7.3903144	0.01353115	0.088363518	7.41028E-05	0.00055208	2.626376174	0.252254204	0.001031022	0.001454783	0.001453985	0.006910294	2.655387139	0.249808509
060372601802	0.169583994	7.46093228	0.01335584	0.077386599	7.27383E-05	0.00054368	2.547540412	0.246198529	0.000960684	0.001331972	0.001348659	0.006318361	1.663207428	0.167607044
060372602001	0.803530424	0.32141217	0.01914751	0.000995941	29.99377E-05	0.000154341	0.096618584	0.049778955	0.000241344	0.000334744	0.000348137	0.001629818	0.164053566	0.016455166
060372602002	0.176205141	0.304820617	0.02063759	0.00982743	29.50852866	0.536518703	0.00937473	0.055145471	0.001629815	0.002415926	0.001629815	0.002415926	0.001437637	0.002130705
060372602003	0.138043376	0.89009328	0.01443811	0.002371427	7.46375E-05	0.00055105	0.453810606	0.235415547	0.001010691	0.00145031	0.0013978	0.006655212	0.014537605	0.205025369
060372602004	0.129340518	0.564956319	0.01421566B	0.079567213	7.44328E-05	0.00055038	2.426620008	0.235212787	0.001038661	0.001431182	0.00139748	0.006636709	1.9410549	0.202651093
060372602005	0.154012564	0.620285559	0.01420782081	0.079378629	7.44328E-05	0.00055038	2.506783245	0.242514544	0.001115954	0.001537254	0.001635785	0.007766709	1.834082373	0.178911382
060372602104	0.135356092	5.793617988	0.01679852	0.094525237	7.88231E-05	0.00055941	2.453640563	0.235875962	0.001111919	0.001472395	0.001599702	0.00723345	1.949703661	0.187739928
060372602105	0.108855572	4.711626675	0.01584410B4	0.090817049	8.24026E-05	0.00058635	2.302797565	0.22301234	0.001182175	0.001681021	0.00170656	0.00831128	1.448349377	0.145525327
060372602106	0.116559906	5.057566103	0.01579568583	0.090568583	8.24026E-05	0.00058635	2.336429192	0.226767929	0.001190103	0.001653251	0.001705644	0.008231709	1.472104436	0.145042991
060372602200	0.149512591	6.59438552	0.01429828	0.078463882	8.60549E-05	0.00058106	2.464069795	0.239645528	0.001178427	0.001558753	0.001790318	0.007929676	1.747595016	0.176633743
060372602301	0.070440917	3.220005895	0.01359720B5	0.077796075	9.23441E-05	0.00060377	2.006953195	0.198351657	0.001073614	0.001551761	0.001717804	0.008546297	1.39052122	0.137015149
060372602302	0.068173037	2.950855579	0.01273516028	0.073533967	9.23441E-05	0.00060377	1.980926874	0.196164103	0.001042819	0.001492097	0.001657902	0.008357977	1.372191397	0.135036177
060372602402	0.066089676	3.065546035	0.01412747B	0.080104878	8.72768E-05	0.00056127	1.93963415	0.191368568	0.000926728	0.001400856	0.001528765	0.007599807	1.162185551	0.122146442
060372602403	0.080159196	3.59744789	0.01693621B4	0.096222633	8.40682E-05	0.00059573	2.099244284	0.206286559	0.001077988	0.00154938	0.001657504	0.008044448	1.25700393	0.128767132
060372602505	0.051260222	2.311665582	0.01420782081	0.079378629	7.44328E-05	0.00055038	2.506783245	0.242514544	0.001115954	0.001537254	0.001635785	0.007766709	1.834082373	0.178911382
060372602506	0.053502039	2.35282707	0.02393133	0.13251581	8.46378E-05	0.00060183	3.872645776	0.181494968	0.000684361	0.000966315	0.001447278	0.006845761	1.353306109	0.130362883
060372602508	0.074513169	3.260880497	0.01842527B	0.102049744	8.41337E-05	0.00059763	2.099627002	0.201002788	0.000963282	0.001297231	0.001594476	0.007310346	1.381575821	0.141209655
060372602509	0.060687607	2.124883171	0.01424803725	0.085218681	8.66523E-05	0.00060823	1.97386525	0.193580182	0.000873735	0.001219568	0.001523386	0.007195441	1.281650821	0.133120739
060372602600	0.050440964	2.23606671	0.01584741	0.093237767	8.81715E-05	0.00061436	1.794946421	0.175765118	0.000625556	0.000939563	0.001322417	0.006424188	1.230631532	0.130670604
060372602700	0.088657881	4.721286795	0.01434060B9	0.092239099	8.00223E-05	0.00055948	2.24109569	0.210108	0.000824523	0.001235555	0.001678523	0.008153724	1.521104796	0.157139427
060372602801	0.091164549	3.53469718	0.01453907B	0.079373573	8.05133E-05	0.00058128	2.377616183	0.230293804	0.001092402	0.001451364	0.001454549	0.006596213	2.819666957	0.263396334
060372602802	0.062605373	2.818310615	0.01383282	0.079110321	8.71476E-05	0.00059384	2.020002678	0.199191671	0.000854999	0.001140164	0.001416041	0.006272702	1.677098981	0.158341852
060372602900	0.053756748	2.345986005	0.01559782B	0.092728175	8.74126E-05	0.00061875	1.986197976	0.202255887	0.000955662	0.001273958	0.001560124	0.00703851	1.440568564	0.146569694
060372603001	0.046551146	2.100090157	0.01612962	0.092118079	9.59457E-05	0.00063837	1.823637637	0.178999102	0.00077083	0.001078065	0.001468988	0.0068722	1.318978902	0.140297127
060372603005	0.045990776	2.071991425	0.01689636	0.096827345	9.16149E-05	0.00060788	1.813766739	0.177992562	0.00078207	0.00103201	0.001402166	0.006244427	1.265212623	0.125015641
060372603006	0.042666745	1.918895153	0.01647223B	0.094395007	9.16149E-05	0.00060788	1.762964124	0.173577716	0.000809166	0.001237591	0.001402166	0.006065522	1.189335869	0.116133413
060372603101	0.044081821	1.984726785	0.01656907B	0.087698843	8.99978E-05	0.00061561	1.797123194	0.176306574	0.000925859	0.00125959	0.001294028	0.006000732	1.381504013	0.13542811
060372603103	0.040311735	1.81331262	0.01533654B	0.080773599	8.42272E-05	0.00058922	1.73826605	0.171098734	0.000965137	0.001263035	0.001247722	0.005681246	1.259757295	0.130395518
060372603400	0.042094329	1.893240628	0.01473980B4	0.084805513	8.7012E-05	0.00059769	1.749378007	0.171603999	0.000816948	0.001070365	0.001271442	0.005800191	1.118071845	0.105286691
060372603500	0.043217746	1.91414096	0.01489681	0.085393356	8.78959E-05	0.00059539	1.740538411	0.170414401	0.000756336	0.000996714	0.001301168	0.005846528	1.084132489	0.111282003
060372603600	0.038547511	1.74249459	0.01493747B	0.083013457	8.31373E-05	0.00057786	1.693595116	0.167282708	0.00083264	0.001217292	0.001151754	0.005548807	1.090432204	0.115439568
060372603702	0.035548967	1.6351527	0.01290649	0.075529111	8.11438E-05	0.00058308	1.651054582	0.163307557	0.000802085	0.001048797	0.001076653	0.005104578	1.087141103	0.103809518
060372603703	0.040872463	1.854306035	0.01511798	0.087275065	8.34309E-05	0.00058523	1.696070455	0.167698676	0.000671819	0.000926079	0.001144751	0.00535005	1.047471494	0.107761134
060372603704	0.043201332	1.932548425	0.01677339	0.097058233	8.3196E-05	0.00059049	1.737352314	0.170929678	0.000704965	0.000985984	0.001212122	0.00579237	1.108834361	0.112879855
060372603801	0.04161709	1.89544577	0.01550115B	0.090398553	8.44963E-05	0.00059461	1.723823779	0.170310236	0.000675375	0.000952755	0.001202469	0.005668843	1.137983278	0.112654876

Table 1 -15. Cumulative Chronic Non-Cancer Health Hazards using National-Scale Air Toxics Assessment (NATA) tables from 2011

	ACROLEIN		CHLORINE		COBALT COMPOUNDS		FORMALDEHYDE		MANGANESE COMPOUNDS		NICKEL COMPOUNDS		DIESEL PM	
BKGPIDFP00	Sum of Total Concentration	Sum of Total Respiratory HI	Sum of Total Concentration	Sum of Total Respiratory HI	Sum of Total Concentration	Sum of Total Respiratory HI	Sum of Total Concentration	Sum of Total Respiratory HI	Sum of Total Concentration	Sum of Total Neurological	Sum of Total Concentration	Sum of Total Respiratory HI	Sum of Total Concentration	Sum of Total Respiratory HI
060372603802	0.038358886	1.743507125	0.01449709	0.083267409	8.10868E-05	0.00058027	1.704695921	0.168309618	0.000734466	0.00099293	0.001145013	0.005256234	1.169553393	0.112581492
060372603900	0.041274983	1.84211008	0.01477498	0.083935881	8.55012E-05	0.00060249	1.756253297	0.173577716	0.000754231	0.001020564	0.001176424	0.005400672	1.203196126	0.116159048
060372604001	0.042030082	1.91828813	0.01641725	0.095136463	7.86136E-05	0.00057868	1.760552331	0.17383112	0.000797107	0.001178507	0.001130114	0.005489201	1.697103988	0.163302442
060372604100	0.042251432	1.9319483	0.01659126	0.095268019	7.84592E-05	0.00057848	1.751750698	0.172910358	0.000796231	0.001178727	0.001127207	0.00489298	0.001203445	0.011144376	0.00535615	1.778114915	0.166596963
060372620001	0.028896499	0.917775736	0.01223639	0.070260883	8.61104E-05	0.00059025	1.254665549	0.123879281	0.000542955	0.000803288	0.000779765	0.003845643	0.048645653	0.010787428	0.00135477	0.126744851	0.011771383
060372620002	0.120198859	5.10750556	0.01265054B	0.074199208	0.00011080	0.00068696	2.345008133	0.226917767	0.001055781	0.00207821	0.002384211	0.011445408	0.153973359	0.015195934
060372620101	0.191320003	8.32465128	0.01131915	0.069368615	8.46734E-05	0.00057818	2.471662256	0.242702555	0.001055781	0.001479765	0.002384211	0.011445408	0.153940757	0.015195934
060372620102	0.116356287	4.780808696	0.01283076	0.069924467	0.00011085	0.00067971	2.263884413	0.217499372	0.001055781	0.001479765	0.002384211	0.011445408	0.153940757	0.015195934
060372620301	0.047402278	2.144514105	0.01224046B1	0.071239951	8.70616E-05	0.00060577	1.737899699	0.172760738	0.000877188	0.001208154	0.001828881	0.008433338	0.901785367	0.098184623
060372620303	0.038675863	1.735669055	0.01369494	0.079187425	7.93132E-05	0.00055559	1.679664552	0.166960396	0.000534407	0.000727468	0.001034202	0.004770915	0.581007482	0.063586792	0.00358622	0.108207832	0.010586227
060372620305	0.044002135	2.150807272	0.01272429B	0.075667739	8.71309553E	0.00061059	1.746595191	0.173572884	0.001091226	0.001519048	0.001578496	0.007284862	0.960584809	0.106858746
060372620400	0.035229335	1.613898236	0.01194465	0.069639865	8.26817E-05	0.00058289	1.624924283	0.161026232	0.000595365	0.000784407	0.001122365	0.004814879	1.011593682	0.106291018
060372620501	0.035406599	1.617044135	0.01204753B	0.070247035	8.31435E-05	0.00058363	1.634274032	0.161944731	0.000594591	0.000783498	0.001121036	0.004810992	1.012301651	0.106080206	0.00268074	0.092002679	0.009487746
060372620502	0.043672509	2.046397883	0.01464564B2	0.085237987	8.53012E-05	0.00059853	1.784263374	0.176912033	0.000732307	0.000964164	0.001382237	0.005931307	1.246218561	0.130944827	0.00330104	0.113284731	0.011704873
060372620600	0.035229338	1.613898236	0.01194465	0.069639865	8.26817E-05	0.00058289	1.624924283	0.161026232	0.000595365	0.000784407	0.001122365	0.004814879	1.011593682	0.106291036	0.00268074	0.092002679	0.009487746
060372620700	0.035406599	1.617044135	0.01204753B	0.070247035	8.31435E-05	0.00058363	1.634274032	0.161944731	0.000594591	0.000783498	0.001121036	0.004810992	1.012301651	0.106080206	0.00268074	0.092002679	0.009487746
060372620701	0.042251432	2.046397883	0.01464564B2	0.085237987	8.53012E-05	0.00059853	1.784263374	0.176912033	0.000732307	0.000964164	0.001382237	0.005931307	1.246218561	0.130944827	0.00330104	0.113284731	0.011704873
060372620702	0.043672509	2.046397883	0.01464564B2	0.085237987	8.53012E-05	0.00059853	1.784263374	0.176912033	0.000732307	0.000964164	0.001382237	0.005931307	1.246218561	0.130944827	0.00330104	0.113284731	0.011704873
060372620800	0.042251432	2.046397883	0.01464564B2	0.085237987	8.53012E-05	0.00059853	1.784263374	0.176912033	0.000732307	0.000964164	0.001382237	0.005931307	1.246218561	0.130944827	0.00330104	0.113284731	0.011704873
060372620801	0.042251432	2.046397883	0.01464564B2	0.085237987	8.53012E-05	0.00059853	1.784263374	0.176912033	0.000732307	0.000964164	0.001382237	0.005931307	1.246218561	0.130944827	0.00330104	0.113284731	0.011704873
060372620802	0.043672509	2.046397883	0.01464564B2	0.085237987	8.53012E-05	0.00059853	1.784263374	0.176912033	0.000732307	0.000964164	0.001382237	0.005931307	1.246218561	0.130944827	0.00330104	0.113284731	0.011704873
060372620900	0.042251432	2.046397883	0.01464564B2	0.085237987	8.53012E-05	0.00059853	1.784263374	0.176912033	0.000732307	0.000964164	0.001382237	0.005931307	1.246218561	0.130944827	0.00330104	0.113284731	0.011704873
060372620901	0.042251432	2.046397883	0.01464564B2	0.085237987	8.53012E-05	0.00059853	1.784263374	0.176912033	0.000732307	0.000964164	0.001382237	0.005931307	1.246218561	0.130944827	0.00330104	0.113284731	0.011704873
060372620902	0.043672509	2.046397883	0.01464564B2	0.085237987	8.53012E-05	0.00059853	1.784263374	0.176912033	0.000732307	0.000964164	0.001382237	0.005931307	1.246218561	0.130944827	0.00330104	0.113284731	0.011704873
060372621000	0.042251432	2.046397883	0.01464564B2	0.085237987	8.53012E-05	0.00059853	1.784263374	0.176912033	0.000732307	0.000964164	0.001382237	0.005931307	1.246218561	0.130944827	0.00330104	0.113284731	0.011704873
060372621001	0.042251432	2.046397883	0.01464564B2	0.085237987	8.53012E-05	0.00059853	1.784263374	0.176912033	0.000732307	0.000964164	0

Table 1 -16. Cumulative Acute Non-Cancer Health Hazards using National-Scale Air Toxics Assessment (NATA) tables from 2011

	ACROLEIN		CHLORINE		FORMALDEHYDE		MANGANESE COMPOUNDS		NICKEL COMPOUNDS	
	Convert to 1-hr 0.08	Acute REL 2.5	Convert to 1-hr 0.08	Acute REL 210	Convert to 1-hr 0.08	Acute REL 55	Convert to 1-hr 0.08	Acute REL 0.17	Convert to 1-hr 0.2	Acute REL 2.5
BKGPIDFP00	1-hr concentration	Acute HI	1-hr concentration	Acute HI	1-hr concentration	Acute HI	1-hr concentration	Acute HI	1-hr concentration	Acute HI
060372742O2	0.446271444	0.178508578	0.233704504	0.001112879	18.35992163	0.333816757	0.005943096	0.03495939	0.00420109	0.001680436
060372751O1	0.967991676	0.387196671	0.198590589	0.000945669	27.87213036	0.506766007	0.008587754	0.050514941	0.005462104	0.002184841
060372751O2	1.084566911	0.433826765	0.225146461	0.001072126	29.13419565	0.529726448	0.00886486	0.052146235	0.005793264	0.002317306
060372752O0	1.077906746	0.431162699	0.221785961	0.001056124	29.13300238	0.529600952	0.008738799	0.051404699	0.00570623	0.002282492
060372753O2	1.180162951	0.472065181	0.203047643	0.000966894	29.28736842	0.532497608	0.009521709	0.056010051	0.005843397	0.002337359
060372754I1	1.068125653	0.427250261	0.2003185	0.000953898	28.16791456	0.512143901	0.008616943	0.050687897	0.005433363	0.002173345
060372754O0	1.051720498	0.420688199	0.215557894	0.001026466	28.98969022	0.527085277	0.009097133	0.053506662	0.00640468	0.002561872
060372755O0	1.00231453	0.400925812	0.200913678	0.000956732	27.83144101	0.5060262	0.008428316	0.049578331	0.005456681	0.002182672
060372756O2	1.230338471	0.492135389	0.158644821	0.000755452	27.92752224	0.507773132	0.008273501	0.048667654	0.00510887	0.002043548
060372758O1	1.12528314	0.450113256	0.186134295	0.000886354	28.32057334	0.514919515	0.008644884	0.050852257	0.005381982	0.002152793
060372760O0	1.73786325	0.6951453	0.169454916	0.000806928	30.51512864	0.554820521	0.009311286	0.054772272	0.005706975	0.00228279
060372761O0	1.300062166	0.520024867	0.190901046	0.000909053	29.01186033	0.52748837	0.009005696	0.052968801	0.00657531	0.002629012
060372764O0	1.934338031	0.773735213	0.1626729	0.000774633	30.43285557	0.553326447	0.008277745	0.048692618	0.005061878	0.002024751
060372765O0	1.82054586	0.728218344	0.154595734	0.00073617	30.1795508	0.548719105	0.008300925	0.048828971	0.005029913	0.002011965
060372766O1	0.841993561	0.336797425	0.146986103	0.000699934	29.76756259	0.541228411	0.00760809	0.04475347	0.004685909	0.001874364
060372766O3	2.08145409	0.832581636	0.185261141	0.000882196	31.37316676	0.570421214	0.008351028	0.049123691	0.005171767	0.002284707
060372766O4	2.976449411	1.190579765	0.149774693	0.000713213	34.68513403	0.630638801	0.008421391	0.049537596	0.005219589	0.002087835
060372770O0	5.119173609	2.047669444	0.156328288	0.00074442	28.79455215	0.523537312	0.008360386	0.049178743	0.005159295	0.002063718
060372771O0	1.856113571	0.742445429	0.176924349	0.000842497	31.06198646	0.56476339	0.009081083	0.05871225	0.006329431	0.002531772
060372772O0	3.125183414	1.250073366	0.14823463	0.000705879	36.91263292	0.67113878	0.01188554	0.069914941	0.006992518	0.002797007
060372774O0	3.345544451	1.338217781	0.143980599	0.000685622	36.07348455	0.655881537	0.010341834	0.060834316	0.006196518	0.002478647
060372780O1	3.339054973	1.335621989	0.144628154	0.00068861	35.81596972	0.6511945	0.010857416	0.052690684	0.005439867	0.002175947
060372781O2	0.936879299	0.37475172	0.173959951	0.000828381	22.8171087	0.414856522	0.006654973	0.039146897	0.004468726	0.00178749
060372791L0	0.634261589	0.253706436	0.182111058	0.000867196	25.43264916	0.462411803	0.009946773	0.058510426	0.006741183	0.002696473
060372791L0	0.639801138	0.255920455	0.18609877	0.000886189	26.85525775	0.488277414	0.012127685	0.071338324	0.009815141	0.003926056
060372791L0	0.575295301	0.230118121	0.179079874	0.000852761	26.03295172	0.473326395	0.012954911	0.07620536	0.008828215	0.003531286
060372792L0	0.611694535	0.244677814	0.200694291	0.000955687	25.64753038	0.466318734	0.014526391	0.08544936	0.008112293	0.003244917
060372792T0	0.790779948	0.316308379	0.171797721	0.000818084	32.09301008	0.583009274	0.01157585	0.068093235	0.010253714	0.004101486
060372792W0	0.7228207	0.28912828	0.16381943	0.000780093	29.41015896	0.534730163	0.010365315	0.060972441	0.007774977	0.003109991
060372793O01	0.734237993	0.293695197	0.164472993	0.000783205	29.92922272	0.544167686	0.010468873	0.061581603	0.007871685	0.003148674
060372793O02	0.740984034	0.296393614	0.162343115	0.000773062	28.96184419	0.526578985	0.010246355	0.060272676	0.006909987	0.002763995
060372795O02	0.755307324	0.30212293	0.160450035	0.000764048	29.51783962	0.536687993	0.010693685	0.062904029	0.007138339	0.002855335
060372795I01	0.804619459	0.321847784	0.168668839	0.000803185	29.7995856	0.541810647	0.010934653	0.064321485	0.006953307	0.002781323
060372795I02	0.792347038	0.316938815	0.166489755	0.000792808	29.14308408	0.529874256	0.010698274	0.062931022	0.006548465	0.002619386
060372795J00	0.757339094	0.302935638	0.151558488	0.000721707	28.113884	0.511161527	0.010455926	0.061505449	0.006035626	0.00241425
060372540T00	0.649090843	0.259636337	0.179413218	0.000854349	25.97368513	0.472248821	0.009748788	0.057345809	0.006765256	0.002706102
060372540B00	0.526063413	0.210425365	0.154125824	0.000733932	24.36977103	0.443086746	0.009933199	0.058430581	0.007660205	0.003064082
060372540R01	0.575550764	0.230220306	0.164555674	0.000783603	24.80043811	0.450917057	0.009795896	0.057622919	0.00661499	0.002645996
060372540P02	0.557809766	0.223123907	0.16197932	0.00077133	25.96458659	0.472083393	0.012116189	0.071271699	0.009757232	0.003902893
060372541O01	0.533182134	0.213272854	0.17139016	0.000816144	26.72919716	0.485985403	0.015760508	0.092708868	0.011270199	0.004508079
060372541O02	0.487914628	0.195165851	0.156583013	0.000745633	25.4615502	0.462937276	0.018137006	0.106688272	0.00900706	0.003602824
060372541I00	0.482858759	0.193143504	0.153481011	0.000730862	24.87808653	0.452328846	0.012898443	0.075873191	0.008580335	0.003432134
060372541Z00	0.494681539	0.197872616	0.154089235	0.000733758	24.54038673	0.44618885	0.011314581	0.06655636	0.008296679	0.003318671
060372541J00	0.500584633	0.200233853	0.15618694	0.000743747	24.4345426	0.444264411	0.010687153	0.062865603	0.010784318	0.004313727
060372542B00	0.46739269	0.186957076	0.150384909	0.000716119	24.17118196	0.439476036	0.012016323	0.07068425	0.007103375	0.00284135
060372542P00	0.519016928	0.207606771	0.144033469	0.000685874	24.48027052	0.445095828	0.012684036	0.074611978	0.006763821	0.002705528
060372543O00	0.465721588	0.186288635	0.153323614	0.000730112	24.59094475	0.447108086	0.013561321	0.079773478	0.007707925	0.00308317
060372543I00	0.513602271	0.205440909	0.158333555	0.000753969	25.74625754	0.468113773	0.015505803	0.091210603	0.008261545	0.003304618
060372600U00	0.887175999	0.3548704	0.173493619	0.00082616	28.6585694	0.521064898	0.009930128	0.058412515	0.00567809	0.00227123
060372600Z01	0.913264129	0.365305652	0.158672121	0.000755577	28.39637239	0.516306678	0.010124233	0.059554309	0.005579578	0.002231831
060372600Z02	0.975138706	0.390055483	0.172298068	0.000820467	28.4605799	0.517465089	0.010768944	0.063346728	0.009332228	0.00373291
060372600X02	1.269052211	0.507620885	0.188126505	0.000876793	28.75653047	0.522846008	0.012922149	0.07601264	0.00684422	0.002737688
060372600X03	0.916097445	0.366438978	0.178141738	0.000848294	28.8104428	0.523826233	0.011496103	0.067624132	0.006326621	0.002530648
060372600J04	0.915970006	0.366388003	0.175591779	0.00083615	28.90776535	0.525595734	0.01159999	0.068235235	0.006321763	0.002528705
060372600K00	1.418180218	0.567272087	0.185120313	0.000882478	29.20375466	0.530977358	0.012803858	0.075316809	0.006850188	0.002740075
060372602S01	1.490091648	0.596036659	0.181083009	0.0008623	29.49966878	0.536357614	0.013096573	0.077003956	0.006966129	0.002786452
060372600S02	1.804920968	0.721968387	0.202870495	0.00096605	32.61470637	0.592994661	0.01467754S	0.0863385	0.008100803	0.003243233
060372600L01	1.50785464	0.603141856	0.172384504	0.000820879	29.09379793	0.528978144	0.011864018	0.069788338	0.006429049	0.00257162
060372606O02	1.613891445	0.645556578	0.155944121	0.000742591	29.53041891	0.536916707	0.011827108	0.069571221	0.006414344	0.002565737
060372607O02	1.485688463	0.59425385	0.154052114	0.000733581	28.65330761	0.520969229	0.010992435	0.064661382	0.00607909	0.002431164
060372607O03	1.548167984	0.619267194	0.183631715	0.000874437	30.03480675	0.546087395	0.011105911	0.06532889	0.006293494	0.002517398
060372607O04	1.408955901	0.563582361	0.184320593	0.00087717	29.05552392	0.528282253	0.011275871	0.066328654	0.006343129	0.002537252
060372608O01	1.200843159	0.480337264	0.186125253	0.000886312	28.11230541	0.511132826	0.010693143	0.062900838	0.006191971	0.002477588
060372608O02	1.245126115	0.498050446	0.164676626	0.000784174	27.95941687	0.508353034	0.010354795	0.06091059	0.005965393	0.002386157
060372609O02	1.326386886	0.530634755	0.219866523	0.001046983	29.60732937	0.538315079	0.011071216	0.065124801	0.00747718	0.002990872
060372609I11	1.13466854	0.453827416	0.184025481	0.000876313	28.14896203	0.511739278	0.009781666	0.057539213	0.006289984	0.002515994
060372609I12	1.085093204	0.434037282	0.180078359	0.000857516	27.60603158	0.501927847	0.00977813	0.057518412	0.006155806	0.002462322
060372601O01	1.489216225	0.59568649	0.180080306	0.00085725	30.23016283	0.549639324	0.011941208	0.070242397	0.007129348	0.002851739
060372601O02	1.76115725	0.7044629	0.183272583	0.000944417	31.13479057	0.567023465	0.011760256	0.069179978	0.007001057	0.002800423
060372601U00	1.998474388	0.799389755	0.190787203	0.00090851	31.84311555	0.578965737	0.012014611	0.070674184	0.006953626	0.00278145
060372601Z02	2.267796599	0.90711864	0.167998229	0.000799992	32.4272348	0.589586087	0.011581446	0.068126118	0.006532483	0.002612993
060372601Z11	1.822842315	0.729136926	0.197550815	0.000940718	32.40553027	0.589191832	0.012480766	0.073416272	0.008373466	0.003349386
060372601Z12	1.976906425	0.79076257	0.19299801	0.000919038	32.09337621	0.583515931	0.011609144	0.068289081	0.007063252	0.00282530
060372601X01	1.126781224	0.45071249	0.171061595	0.000814579	27.79201091	0.505309289	0.00939343	0.055255471	0.006004689	0.002401875
060372601X03	1.332272575	0.532909029	0.182047594	0.000867417	29.79226358	0.541677552	0.010353408	0.061970471	0.00747224	0.002988896
060372601J01	2.158773576	0.863509431	0.184710948	0.000879576	34.04359956	0.618974537	0.012560946	0.073887919	0.008454067	0.003381627
060372601J02	2.563818405	1.025527362	0.174126965	0.00082916	33.94954425	0.617264441	0.011282781	0.066369301	0.006677978	0.002671191
060372601S02	2.719020485	1.087608194	0.168004948	0.000800024	34.13595924	0.620653804	0.011830585	0.069591676	0.006808655	0.002723462
060372601O00	2.578574209	1.031429684	0.174922388	0.000832964	34.10323	0.620058727	0.01278274	0.075192588	0.007254281	0.002901712
060372601T00	2.112478063	0.844991225	0.191413939	0.000911495	32.82702118	0.596036676	0.012887779	0.075810463	0.007269924	0.002907969
060372601B02	2.119799919	0.847919968	0.1669423	0.000794963	31.84425515	0.578986457	0.012008551	0.070638537	0.006743295	0.002697318
060372601900	1.829168475	0.73166739	0.164005203	0.000780977	30.71727755	0.558395046	0.011967889	0.070399346	0.006715031	0.002686012
060372602003	1.725542203	0.690216881	0.180486391	0.000859459	30.67263257	0.557684229	0.012633638	0.074315515	0.006989001	0.0027956
060372602004	1.616756479	0.646702592	0.177695809	0.000846171	30.3327501	0.551504547	0.012983259	0.07637211	0.006987402	0.002794961

Table 1 -16. Cumulative Acute Non-Cancer Health Hazards using National-Scale Air Toxics Assessment (NATA) tables from 2011

	ACROLEIN		CHLORINE		FORMALDEHYDE		MANGANESE COMPOUNDS		NICKEL COMPOUNDS	
	Convert to 1-hr 0.08	Acute REL 2.5	Convert to 1-hr 0.08	Acute REL 210	Convert to 1-hr 0.08	Acute REL 55	Convert to 1-hr 0.08	Acute REL 0.17	Convert to 1-hr 0.2	Acute REL 2.5
BKGPIDFP00	1-hr concentration	Acute HI	1-hr concentration	Acute HI	1-hr concentration	Acute HI	1-hr concentration	Acute HI	1-hr concentration	Acute HI
060376021O0	1.925157654	0.770062822	0.198732861	0.000951109	31.76740911	0.577589256	0.01197443	0.083202529	0.008078923	0.003231569
060376021O4	1.691951153	0.676780461	0.208998148	0.000995229	30.67050704	0.557645583	0.013898985	0.081758735	0.00799851	0.003199404
060376021O5	1.360694648	0.544277859	0.198051296	0.000943101	28.78496706	0.523363038	0.014777191	0.086924654	0.008532801	0.00341312
060376021O6	1.456993824	0.58279953	0.196073543	0.000933684	29.20532415	0.531005894	0.014887913	0.087579356	0.008782199	0.003513279
060376022O0	1.868907391	0.747562957	0.167872848	0.000799395	30.80087244	0.560015863	0.01473034	0.086649059	0.008951588	0.003580635
060376022O1	0.880511458	0.352204583	0.169960364	0.000809357	25.08691493	0.456125726	0.013420176	0.078942213	0.008890201	0.00355608
060376023O2	0.852137958	0.340855183	0.15919128	0.000758054	24.76158559	0.450210647	0.013660149	0.080353816	0.009288512	0.003715805
060376024O2	0.826120951	0.330448381	0.176593476	0.000840921	24.24542688	0.440825943	0.011584101	0.068141772	0.007643824	0.003057529
060376024O3	1.00198995	0.40079598	0.211702675	0.001008108	26.24055355	0.477100974	0.013474785	0.079263824	0.008287519	0.003315007
060376025O5	0.640752769	0.2563011	0.258555681	0.001232118	22.92871863	0.416885793	0.008375908	0.049270044	0.007058661	0.002823464
060376025O6	0.668775481	0.267510193	0.292391693	0.001392341	23.4080722	0.425601313	0.00855451	0.050320647	0.007236388	0.002894555
060376025O8	0.931642114	0.372656846	0.230315943	0.001096743	25.87033795	0.470369781	0.011916021	0.070094243	0.007992378	0.003196951
060376026O9	0.871095085	0.348438034	0.188540914	0.00088829	24.66081562	0.448378466	0.010967163	0.064512721	0.00761193	0.003044772
060376026O0	0.630512049	0.25220482	0.198092633	0.000943298	22.43683026	0.407942368	0.008156951	0.047982066	0.006612087	0.002644835
060376027O0	1.360723508	0.544289403	0.178825686	0.000851551	29.14913005	0.529984183	0.013849996	0.081470566	0.00762756	0.003051024
060376028O1	1.139580738	0.455832295	0.181738455	0.000865421	29.72020229	0.540367314	0.013655019	0.08032364	0.007292745	0.002917098
060376028O2	0.78256716	0.313026864	0.172853153	0.00082311	25.25003348	0.459091518	0.010687493	0.062867603	0.007080205	0.002832082
060376029O0	0.671959355	0.268783742	0.199222963	0.000948681	24.82746887	0.451408525	0.010419544	0.061291434	0.01066649	0.004266596
060376030O1	0.583139329	0.233255732	0.201620254	0.000960096	22.79547047	0.414463099	0.009635376	0.056678684	0.007344939	0.002937975
060376030O5	0.574884698	0.229953879	0.211204508	0.001005736	22.67208424	0.412219713	0.009840084	0.057882846	0.007100828	0.002840331
060376030O6	0.533334308	0.213333723	0.180902723	0.00086144	22.03705154	0.400673664	0.01073958	0.063174	0.00623171	0.002492684
060376031O1	0.551022764	0.220409106	0.196238391	0.000934469	22.46403993	0.40843709	0.01157324	0.068077882	0.006470138	0.002588055
060376031O3	0.503896686	0.201558675	0.19170678	0.000912889	21.72832562	0.395060466	0.012064209	0.070965934	0.006236098	0.002494439
060376034O0	0.526179116	0.210471647	0.184247549	0.00087369	21.79922371	0.396349522	0.010211849	0.060069699	0.006357212	0.002542885
060376035O0	0.54022183	0.216088732	0.186210119	0.000886715	21.75673014	0.39557692	0.009204195	0.054142324	0.006505839	0.002602336
060376036O0	0.481843886	0.192737555	0.179968484	0.000856993	21.16993895	0.384907981	0.010407996	0.061223507	0.00575877	0.002303508
060376037O2	0.444487088	0.177794835	0.161330483	0.00076824	20.63818134	0.375239661	0.010003535	0.058844324	0.005368267	0.002147307
060376037O3	0.510905788	0.204362315	0.188974975	0.000899881	21.20088068	0.385470558	0.008397734	0.049398434	0.005723757	0.002289503
060376037O4	0.540016651	0.216066661	0.210966734	0.001004603	21.71690393	0.39482799	0.00881266	0.051835684	0.006066068	0.002424243
060376038O1	0.520213624	0.20808545	0.193764454	0.000922688	21.54227974	0.391677813	0.008442156	0.049659743	0.006012345	0.002404938
060376038O2	0.47948607	0.191794428	0.181221358	0.000862959	21.31207401	0.387492255	0.009180824	0.054004846	0.005725063	0.002290025
060376039O0	0.515937283	0.206374913	0.184687265	0.000879463	21.56281621	0.392051204	0.008584004	0.05049414	0.006103399	0.002441359
060376040O1	0.52537602	0.210150408	0.205215434	0.000977216	22.00690414	0.40012553	0.009963838	0.058610809	0.005650571	0.002260228
060376040U0	0.528142901	0.211257161	0.207390748	0.000987575	21.96678749	0.399396136	0.011162345	0.065660853	0.005721882	0.002288753
060376200O1	2.611205481	1.044482193	0.153345483	0.000730217	32.43333186	0.589696943	0.013479114	0.079288904	0.00948749	0.003794996
060376200O2	1.502498234	0.600999294	0.158131816	0.000753009	29.31260167	0.532956394	0.019472683	0.114545191	0.016241054	0.006496421
060376201O1	2.39150004	0.956600016	0.144389379	0.000673759	30.89577821	0.561741422	0.011886944	0.069923199	0.007920699	0.003168279
060376201O2	1.45445359	0.581781436	0.151088448	0.000719469	28.29760516	0.514501912	0.016914916	0.099499507	0.016818576	0.00672743
060376203O1	0.592528474	0.23701139	0.153005763	0.000728599	21.72374624	0.394977204	0.010964844	0.064499081	0.009144403	0.003657761
060376203O3	0.48344829	0.193379316	0.170118169	0.000810087	20.99580689	0.381741944	0.006680091	0.039294654	0.005171012	0.002068405
060376203O5	0.550002934	0.22000174	0.159031145	0.000757291	21.41369419	0.389339894	0.009001048	0.053006162	0.007952402	0.003180961
060376204O0	0.45286544	0.181146176	0.149305814	0.00071098	20.31155354	0.369300973	0.007442063	0.043776838	0.005611825	0.00224473
060376205O1	0.44258249	0.177032996	0.168071679	0.000800341	20.93727539	0.380677734	0.008533538	0.050197279	0.005023111	0.002009244
060376208O0	0.439424341	0.175769737	0.164787613	0.000784703	20.63311033	0.375147461	0.007155868	0.042093338	0.004211068	0.001684427
060376209O1	0.435879591	0.174351837	0.163238336	0.00077325	20.61696454	0.374853901	0.0063423	0.037307647	0.004203491	0.001681396
060376500O1	0.509978153	0.203991261	0.19993716	0.000952082	21.86637003	0.397503964	0.014646013	0.086153015	0.006529431	0.002611772
060377015O2	0.653312866	0.261325147	0.223726266	0.001065363	28.25066307	0.513648419	0.012605736	0.07415139	0.007449158	0.002979663
060377016O1	0.483181334	0.193272534	0.173094934	0.000824262	25.07473937	0.455904352	0.009003263	0.052960368	0.005683081	0.002273232
060377017O1	0.67604561	0.270418244	0.22560447	0.001074307	28.25293653	0.513689755	0.013345989	0.078505816	0.007894706	0.003157882
060377017O2	0.670915278	0.268366111	0.212699074	0.001012853	28.03318322	0.50969424	0.013014529	0.076556051	0.007838323	0.003132329
060377018O1	0.700683596	0.280273439	0.199080113	0.00094801	28.5104S7	0.518371945	0.011828568	0.069579809	0.007188493	0.002875397
060377018O2	0.644379748	0.257751899	0.19409409	0.000924258	27.27787701	0.4959614	0.011817383	0.069514015	0.007119296	0.002847718
060377020O2	0.545903656	0.218362543	0.183878395	0.00087085	25.69956672	0.46726485	0.010019296	0.058937037	0.006537295	0.002614918
060377021O2	0.55980119	0.223920476	0.190846209	0.000908791	25.84290825	0.469871059	0.010045325	0.059090147	0.006655637	0.002662255
060377022O1	0.541111145	0.216444458	0.182956619	0.000871222	25.53118805	0.464203419	0.009850504	0.05794414	0.006193693	0.002477477
060377022O2	0.547494428	0.218997771	0.17025625	0.000842979	25.28289191	0.459688944	0.009343409	0.054961228	0.005970909	0.002388364
060377023O0	0.64379954	0.257519816	0.163695728	0.00077953S	27.32997874	0.496908704	0.009443538	0.055550221	0.005683076	0.00227323
060377024O0	0.788360999	0.3153444	0.176769786	0.000841761	30.23584167	0.549742576	0.011585815	0.068151824	0.006913285	0.002765314
060377025O1	0.799476401	0.319790561	0.181113315	0.000862444	28.40297088	0.516417652	0.008811955	0.051859509	0.005434659	0.002173863
060377026O0	0.97351651	0.389406604	0.179738243	0.000855896	27.45205635	0.499128297	0.008537715	0.050221853	0.00526092	0.002107625
060377027O0	0.915679228	0.366271691	0.191936271	0.000913982	27.66399108	0.502981656	0.008511815	0.0500695	0.005298371	0.002119348
060377028O1	0.914466599	0.365786637	0.218900925	0.001042385	30.02665123	0.54593915	0.009856994	0.057982316	0.00608698	0.002434792
060377028O2	1.116509205	0.446603682	0.24721852	0.001177231	30.21575296	0.549377326	0.00956688	0.056275765	0.006146425	0.002458857
060377029O1	0.779058415	0.311623366	0.181184373	0.000862783	23.0647821	0.419359674	0.007114439	0.04184964	0.004472637	0.001789055
060377030O1	0.948877711	0.379551085	0.147545761	0.00070259S	27.15140625	0.493661932	0.008663073	0.05095925	0.00523971	0.002095885
060377030O2	1.01293641	0.405174257	0.151698024	0.000722372	26.99130008	0.490750911	0.00856191	0.050364176	0.005397804	0.002159121
060377031O0	0.89045086	0.356180344	0.163274716	0.000777499	26.40398193	0.480072399	0.00842235	0.049483735	0.005621198	0.002248479
060377032O0	0.86342009	0.345368036	0.172162888	0.000819823	26.56080626	0.48292375	0.008803088	0.051782868	0.005544289	0.002217715
Minimum	0.435879591	0.174351837	0.141489379	0.000673759	18.35992163	0.333816757	0.005943096	0.03495939	0.004101746	0.001640698
Maximum	3.345544451	1.338217781	0.343084603	0.001633736	38.98851584	0.708882106	0.02126326	0.125078	0.016818576	0.00672743
Average	0.934414155	0.373765662	0.187397434	0.000892369	28.16802063	0.51214583	0.010334415	0.060790675	0.006670252	0.002668103

Attachment 2

Acute Non-Cancer Health Hazard Calculations

Construction

2-1 Unmitigated

CDM Smith

Flysheets.docx

Table 2-1.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2018 Unmitigated Construction, Construction TAC Concentrations - Organics Only

	acetaldehyde ($\mu g/m^3$)	acrolein ($\mu g/m^3$)	benzene ($\mu g/m^3$)	formaldehyde ($\mu g/m^3$)	methyl alcohol ($\mu g/m^3$)	methyl ethyl ketone ($\mu g/m^3$)	styrene ($\mu g/m^3$)	toluene ($\mu g/m^3$)	xylene, total ($\mu g/m^3$)	1,3-Butadiene ($\mu g/m^3$)	ethyl benzene ($\mu g/m^3$)
Commercial - Onsite **Max Location**	**404**	**404**	**404**	**404**	**404**	**404**	**404**	**404**	**404**	**404**	**404**
Maximum Onsite Concentration-->	2.21E-01	2.25E-04	2.46E-01	4.44E-01	1.10E-03	4.44E-02	2.00E-03	5.40E-02	3.98E-02	6.64E-03	1.11E-02
Average Onsite Concentration-->	1.50E-01	1.51E-04	1.48E-01	3.02E-01	7.49E-04	3.02E-02	1.36E-03	3.66E-02	2.70E-02	4.50E-03	7.54E-03
Minimum Onsite Concentration-->	7.92E-02	7.70E-05	5.04E-02	1.59E-01	3.93E-04	1.59E-02	7.16E-04	1.92E-02	1.41E-02	2.37E-03	3.96E-03
Commercial - Offsite **Max Location**	**790**	**813**	**782**	**790**	**813**	**790**	**813**	**813**	**813**	**813**	**813**
Maximum Offsite Concentration-->	1.24E+00	3.97E-03	9.45E-01	2.48E+00	8.11E-03	2.49E-01	1.26E-02	3.96E-01	3.04E-01	4.51E-02	7.86E-02
Average Offsite Concentration-->	1.77E-01	2.47E-04	1.19E-01	3.56E-01	9.45E-04	3.56E-02	1.67E-03	4.62E-02	3.44E-02	5.60E-03	9.44E-03
Minimum Offsite Concentration-->	1.92E-02	1.01E-05	6.85E-03	1.49E-02	3.97E-05	1.49E-03	1.91E-03	1.43E-02	2.00E-03	3.30E-04	1.39E-03
Residential **Max Location**	**474**	**474**	**476**	**474**	**474**	**474**	**474**	**474**	**474**	**474**	**474**
Maximum Offsite Concentration-->	6.77E-01	1.52E-03	2.90E-01	1.38E+00	4.13E-03	1.36E-01	6.88E-03	2.02E-01	1.52E-01	2.38E-02	4.07E-02
Average Offsite Concentration-->	9.62E-02	1.19E-05	6.49E-02	1.92E-01	5.01E-04	1.92E-02	9.12E-04	2.49E-02	1.85E-02	3.02E-03	5.08E-03
Minimum Offsite Concentration-->	3.53E-03	4.65E-06	1.95E-03	7.10E-03	1.86E-05	7.10E-04	3.30E-05	9.10E-04	6.75E-04	1.10E-04	1.86E-04
CalEPA Acute REL	470	2.5	27	55	28000	13000	21000	37000	22000	660	2000
Commercial - Onsite											
Onsite Maximum Acute Hazard-->	4.70E-04	8.99E-05	9.13E-03	8.07E-03	3.94E-08	3.42E-06	9.54E-08	1.46E-06	1.81E-06	1.01E-05	5.56E-06
Onsite Maximum Acute Hazard-->	3.19E-04	6.03E-05	5.50E-03	5.40E-03	2.67E-08	2.32E-06	6.48E-08	9.90E-07	1.23E-06	6.82E-06	3.77E-06
Onsite Minimum Acute Hazard-->	1.69E-04	3.08E-05	1.87E-03	2.89E-03	1.42E-08	1.23E-06	3.41E-08	5.20E-07	6.43E-07	3.59E-06	1.98E-06
Commercial - Offsite											
Offsite Maximum Acute Hazard-->	2.63E-03	1.59E-03	3.50E-02	4.52E-02	2.90E-07	1.91E-05	6.00E-07	1.07E-05	1.38E-05	6.83E-05	3.93E-05
Offsite Average Acute Hazard-->	3.77E-04	9.87E-05	4.41E-03	6.48E-03	3.37E-08	2.74E-06	7.93E-08	1.25E-06	1.56E-06	8.48E-06	4.72E-06
Offsite Minimum Acute Hazard-->	1.56E-05	4.05E-06	1.54E-04	2.68E-04	1.40E-09	1.13E-07	3.28E-09	5.17E-08	6.45E-08	3.51E-07	1.95E-07
Residential											
Offsite Maximum Acute Hazard-->	1.44E-03	6.06E-04	1.08E-02	2.48E-02	1.47E-07	1.05E-05	3.27E-07	5.46E-06	6.92E-06	3.60E-05	2.03E-05
Offsite Average Acute Hazard-->	1.16E-04	2.68E-05	1.13E-03	2.00E-03	1.01E-08	8.45E-07	2.41E-08	3.75E-07	4.67E-07	2.56E-06	1.42E-06
Offsite Minimum Acute Hazard-->	7.51E-06	1.86E-06	7.24E-05	1.29E-04	6.64E-10	5.46E-08	1.57E-09	2.46E-08	3.07E-08	1.67E-07	9.31E-08

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Table 2-1.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2018 Unmitigated Construction, Construction TAC Concentrations - Organics Only

X	Y	Receptor Type	acetaldehyde ($\mu g/m^3$)	acrolein ($\mu g/m^3$)	benzene ($\mu g/m^3$)	formaldehyde ($\mu g/m^3$)	methyl alcohol ($\mu g/m^3$)	methyl ethyl ketone ($\mu g/m^3$)	styrene ($\mu g/m^3$)	toluene ($\mu g/m^3$)	xylene, total ($\mu g/m^3$)	1,3-Butadiene ($\mu g/m^3$)	ethyl benzene ($\mu g/m^3$)
369131.40	3758945.42	Residential/Commercial	6.51E-02	8.18E-05	3.22E-02	1.31E-01	3.39E-04	1.31E-02	8.04E-04	1.66E-02	1.23E-02	2.02E-03	3.40E-03
370190.78	3758848.26	Residential/Commercial	1.51E-01	1.27E-04	6.08E-02	3.03E-01	7.30E-04	3.03E-02	1.34E-03	3.57E-02	2.62E-02	4.42E-03	7.38E-03
370747.03	3763937.58	Residential/Commercial	1.12E-02	1.34E-05	6.35E-03	2.25E-02	5.78E-05	2.25E-03	1.03E-04	2.83E-03	2.09E-03	3.45E-04	5.80E-04
370757.72	3755124.52	Residential/Commercial	1.80E-01	1.62E-04	1.37E-01	3.62E-01	8.82E-04	3.63E-02	1.61E-03	4.32E-02	3.20E-02	5.37E-03	9.01E-03
370946.70	3758260.69	Residential/Commercial	2.26E-01	1.63E-04	8.94E-02	4.53E-01	1.07E-03	4.54E-02	1.99E-03	5.23E-02	3.82E-02	6.50E-03	1.08E-02
371368.79	3754218.82	Residential/Commercial	2.85E-02	3.39E-05	1.60E-02	5.69E-02	1.46E-04	5.70E-03	2.61E-04	7.15E-03	5.12E-03	8.71E-04	1.46E-03
371786.04	3754168.42	Residential/Commercial	2.71E-02	3.71E-05	1.90E-02	5.46E-02	1.44E-04	5.45E-03	2.54E-04	7.05E-03	5.24E-03	8.54E-04	1.44E-03
373756.25	3761779.11	Residential/Commercial	3.07E-02	4.06E-05	1.70E-02	6.19E-02	1.62E-04	6.18E-03	2.87E-04	7.93E-03	5.88E-03	9.62E-04	1.62E-03
374734.03	3758535.17	Residential/Commercial	1.45E-02	1.91E-05	8.69E-03	2.91E-02	7.43E-05	2.92E-03	1.32E-04	3.66E-03	2.72E-03	4.19E-04	7.15E-04
368069.11	3760165.13	Residential/Commercial	5.53E-02	5.08E-05	3.05E-02	1.11E-01	2.71E-04	1.11E-02	4.97E-04	1.33E-02	9.76E-03	1.64E-03	2.74E-03
369125.38	3760306.25	Residential/Commercial	1.15E-02	1.38E-05	6.73E-03	2.31E-02	5.93E-05	2.31E-03	1.06E-04	2.90E-03	2.15E-03	3.54E-04	5.94E-04
369225.45	3760222.42	Residential/Commercial	1.16E-02	1.42E-05	6.91E-03	2.37E-02	6.09E-05	2.37E-03	1.09E-04	2.98E-03	2.21E-03	3.63E-04	6.10E-04
370236.75	3761140.30	Residential/Commercial	2.08E-02	2.39E-05	1.16E-02	4.17E-02	1.06E-04	4.17E-03	1.91E-04	5.20E-03	3.84E-03	6.35E-04	1.07E-03
372218.41	3759157.53	Residential/Commercial	2.35E-02	3.05E-05	1.40E-02	4.70E-02	1.20E-04	4.71E-03	2.15E-04	5.87E-03	4.33E-03	7.15E-04	1.20E-03
372267.44	3762986.25	Residential/Commercial	2.46E-02	2.60E-05	1.25E-02	4.95E-02	1.24E-04	4.95E-03	2.24E-04	6.07E-03	4.47E-03	7.44E-04	1.25E-03
374498.14	3758643.27	Residential/Commercial	2.83E-02	3.89E-05	1.67E-02	5.70E-02	1.51E-04	5.69E-03	2.66E-04	7.37E-03	5.47E-03	8.93E-04	1.51E-03
375472.61	3759680.03	Residential/Commercial	4.88E-02	5.95E-05	2.82E-02	9.82E-02	2.62E-04	9.81E-03	4.61E-04	1.28E-02	9.54E-03	1.55E-03	2.62E-03
375514.38	3757500.67	Residential/Commercial	6.07E-02	6.23E-05	4.97E-02	1.22E-01	3.04E-04	1.22E-02	5.51E-04	1.49E-02	1.10E-02	1.83E-03	3.06E-03
376395.41	3759189.37	Residential/Commercial	2.94E-02	3.16E-05	1.45E-02	5.91E-02	1.57E-04	5.90E-03	2.76E-04	7.65E-03	5.68E-03	9.26E-04	1.55E-03
366363.62	3757753.10	Fenceline	4.21E-02	4.28E-05	2.95E-02	8.47E-02	2.10E-04	8.47E-03	3.82E-04	1.03E-02	7.59E-03	1.27E-03	2.12E-03
369385.71	3758351.85	Fenceline	8.62E-02	7.34E-05	8.86E-02	1.73E-01	4.18E-04	1.73E-02	7.69E-04	2.05E-02	1.50E-02	2.53E-03	4.22E-03
369388.19	3758584.61	Fenceline	1.04E-01	8.91E-05	1.07E-01	2.09E-01	5.06E-04	2.09E-02	9.29E-04	2.47E-02	1.81E-02	3.06E-03	5.10E-03
371727.30	3758286.14	Fenceline	1.67E-01	1.52E-04	7.52E-02	3.35E-01	8.18E-04	3.36E-02	1.50E-03	4.00E-02	2.94E-02	4.94E-03	8.25E-03
371973.18	3757657.97	Fenceline	8.67E-01	2.92E-03	4.06E-01	1.76E+00	6.17E-03	1.74E-01	9.68E-03	3.02E-01	2.31E-01	3.45E-02	6.00E-02
372028.99	3758258.28	Fenceline	8.12E-01	1.97E-03	5.06E-01	1.66E+00	7.85E-03	1.62E-01	1.11E-02	3.04E-01	2.31E-01	4.18E-02	7.46E-02
372057.72	3757303.44	Fenceline	3.05E-01	6.02E-04	2.45E-01	6.15E-01	1.79E-03	6.13E-02	3.03E-03	8.74E-02	6.57E-02	1.04E-02	1.77E-02
372058.54	3757299.68	Fenceline	2.85E-01	5.91E-04	1.04E-01	5.77E-01	1.88E-03	5.72E-02	3.03E-03	9.17E-02	6.90E-02	1.13E-02	1.84E-02
372114.76	3757419.38	Fenceline	3.62E-01	6.56E-04	3.11E-01	7.30E-01	2.07E-03	7.28E-02	3.54E-03	1.01E-01	7.58E-02	1.21E-02	2.05E-02
372149.51	3757302.81	Fenceline	2.27E-01	2.72E-04	1.42E-01	4.57E-01	1.17E-03	4.57E-02	2.10E-03	5.74E-02	4.24E-02	7.00E-03	1.18E-02
366675.72	3757443.67	Fenceline	4.50E-02	4.57E-05	3.04E-02	9.04E-02	2.25E-04	9.05E-03	4.08E-04	1.10E-02	8.10E-03	1.35E-03	2.26E-03
367105.41	3757963.83	Fenceline	5.57E-02	5.81E-05	3.27E-02	1.12E-01	2.80E-04	1.12E-02	5.07E-04	1.37E-02	1.01E-02	1.68E-03	2.82E-03
367221.30	3757911.68	Fenceline	5.12E-02	5.15E-05	3.07E-02	1.03E-01	2.55E-04	1.03E-02	4.64E-04	1.25E-02	9.21E-03	1.54E-03	2.57E-03
367346.43	3757955.57	Fenceline	5.29E-02	5.39E-05	3.21E-02	1.06E-01	2.65E-04	1.06E-02	4.80E-04	1.30E-02	9.54E-03	1.59E-03	2.66E-03
367457.41	3758010.28	Fenceline	5.41E-02	5.59E-05	3.24E-02	1.09E-01	2.71E-04	1.09E-02	4.92E-04	1.33E-02	9.78E-03	1.63E-03	2.73E-03
367730.93	3758257.04	Fenceline	5.77E-02	5.96E-05	3.42E-02	1.16E-01	2.89E-04	1.16E-02	5.25E-04	1.42E-02	1.04E-02	1.74E-03	2.91E-03
367995.30	3758074.68	Fenceline	8.17E-02	8.30E-05	3.99E-02	1.64E-01	4.08E-04	1.64E-02	7.41E-04	2.00E-02	1.47E-02	2.46E-03	4.11E-03
369154.15	3758166.98	Fenceline	7.47E-02	8.77E-05	4.31E-02	1.50E-01	3.84E-04	1.50E-02	6.88E-04	1.88E-02	1.39E-02	2.29E-03	3.85E-03
369214.54	3758209.64	Fenceline	7.31E-02	7.62E-05	3.99E-02	1.47E-01	3.67E-04	1.47E-02	6.64E-04	1.80E-02	1.32E-02	2.20E-03	3.68E-03
369279.67	3758015.34	Fenceline	1.07E-01	1.18E-04	6.78E-02	2.14E-01	5.41E-04	2.14E-02	9.75E-04	2.65E-02	1.96E-02	3.24E-03	5.44E-03
369788.09	3758340.35	Fenceline	1.23E-01	9.81E-05	8.18E-02	2.47E-01	5.91E-04	2.48E-02	1.09E-03	2.89E-02	2.12E-02	3.59E-03	5.98E-03
369790.55	3758389.31	Fenceline	9.47E-02	1.04E-04	6.04E-02	1.90E-01	4.80E-04	1.90E-02	8.66E-04	2.35E-02	1.74E-02	2.88E-03	4.83E-03
371537.21	3756959.02	Fenceline	1.28E+00	1.25E-03	1.59E+00	2.57E+00	6.36E-03	2.58E-01	1.16E-02	3.11E-01	2.29E-01	3.83E-02	6.40E-02
371726.86	3757327.88	Fenceline	2.42E+00	2.66E-03	3.11E+00	4.87E+00	1.25E-02	4.87E-01	2.24E-02	6.14E-01	4.57E-01	7.46E-02	1.25E-01
371795.72	3757393.54	Fenceline	1.25E+00	1.90E-03	5.11E-01	2.51E+00	6.81E-03	2.51E-01	1.19E-02	3.33E-01	2.48E-01	4.01E-02	6.79E-02
371925.67	3757658.96	Fenceline	9.23E-01	2.13E-03	3.77E-01	1.86E+00	5.69E-03	1.85E-01	9.44E-03	2.78E-01	2.10E-01	3.27E-02	5.60E-02
372100.95	3757929.47	Fenceline	5.81E-01	1.91E-03	5.53E-02	1.17E+00	2.90E-04	1.17E-01	5.25E-03	1.42E-01	1.05E-01	1.74E-02	2.96E-02
366410.42	3757645.39	Fenceline	4.24E-02	4.58E-05	3.22E-02	8.52E-02	2.14E-04	8.52E-03	3.87E-04	1.05E-02	7.73E-03	1.28E-03	2.15E-03
366412.06	3757743.84	Fenceline	4.26E-02	4.32E-05	3.00E-02	8.56E-02	2.13E-04	8.57E-03	3.86E-04	1.04E-02	7.67E-03	1.28E-03	2.14E-03
366449.10	3757556.84	Fenceline	4.51E-02	4.83E-05	3.37E-02	9.06E-02	2.27E-04	9.06E-03	4.11E-04	1.11E-02	8.21E-03	1.36E-03	2.28E-03
366471.13	3757711.22	Fenceline	4.32E-02	4.43E-05	3.11E-02	8.67E-02	2.16E-04	8.68E-03	3.92E-04	1.06E-02	7.79E-03	1.30E-03	2.18E-03
366487.79	3757778.29	Fenceline	4.78E-02	5.13E-05	3.38E-02	9.60E-02	2.40E-04	9.61E-03	4.35E-04	1.18E-02	8.67E-03	1.44E-03	2.41E-03
366526.47	3757379.74	Fenceline	4.97E-02	5.12E-05	3.40E-02	9.98E-02	2.49E-04	9.99E-03	4.51E-04	1.22E-02	8.97E-03	1.50E-03	2.50E-03
366543.32	3757684.41	Fenceline	4.39E-02	4.62E-05	3.21E-02	8.82E-02	2.21E-04	8.83E-03	4.00E-04	1.08E-02	7.97E-03	1.33E-03	2.22E-03
366565.16	3757691.19	Fenceline	5.10E-02	5.14E-05	3.52E-02	1.02E-01	2.54E-04	1.02E-02	4.62E-04	1.24E-02	9.17E-03	1.53E-03	2.56E-03
366572.51	3757755.35	Fenceline	4.97E-02	5.22E-05	3.30E-02	9.99E-02	2.50E-04	9.99E-03	4.52E-04	1.22E-02	9.01E-03	1.50E-03	2.51E-03
366603.85	3757202.64	Fenceline	5.15E-02	5.08E-05	3.47E-02	1.03E-01	2.56E-04	1.04E-02	4.65E-04	1.25E-02	9.22E-03	1.54E-03	2.58E-03
366629.35	3757738.18	Fenceline	5.03E-02	5.45E-05	3.42E-02	1.01E-01	2.56E-04	1.01E-02	4.60E-04	1.25E-02	9.19E-03	1.53E-03	2.56E-03
366642.53	3757114.09	Fenceline	5.12E-02	4.91E-05	3.27E-02	1.03E-01	2.53E-04	1.03E-02	4.62E-04	1.24E-02	9.11E-03	1.53E-03	2.55E-03
366681.22	3757025.54	Fenceline	5.00E-02	4.89E-05	3.59E-02	1.00E-01	2.48E-04	1.00E-02	4.49E-04	1.20E-02	8.85E-03	1.48E-03	2.46E-03
366700.77	3757739.37	Fenceline	4.52E-02	4.60E-05	3.06E-02	9.09E-02	2.26E-04	9.09E-03	4.10E-04	1.11E-02	8.15E-03	1.36E-03	2.28E-03
366719.91	3759036.99	Fenceline	4.81E-02	4.40E-05	3.76E-02	9.65E-02	2.36E-04	9.67E-03	4.32E-04	1.15E-02	8.48E-03	1.42E-03	2.38E-03
366758.59	3758644.44	Fenceline	4.53E-02	4.47E-05	3.71E-02	9.09E-02	2.21E-04	9.11E-03	4.06E-04	1.08E-02	7.96E-03	1.34E-03	2.23E-03
366780.64	3757782.90	Fenceline	4.57E-02	4.71E-05	2.88E-02	9.19E-02	2.29E-04	9.20E-03	4.15E-04	1.12E-02	8.26E-03	1.38E-03	2.31E-03
366797.28	3756759.89	Fenceline	4.14E-02	3.63E-05	3.41E-02	8.31E-02	2.02E-04	8.33E-03	3.70E-04	9.87E-03	7.25E-03	1.22E-03	2.04E-03
366835.96	3756671.34	Fenceline	3.67E-02	3.25E-05	2.92E-02	7.38E-02	1.79E-04	7.39E-03	3.29E-04	8.77E-03	6.44E-03	1.08E-03	1.81E-03
366869.69	3757831.79	Fenceline	4.67E-02	4.79E-05	2.65E-02	9.38E-02	2.34E-04	9.39E-03	4.24E-04	1.14E-02	8.42E-03	1.40E-03	2.35E-03
366874.65	3758462.79	Fenceline	3.28E-02	3.42E-05	2.36E-02	6.59E-02	1.62E-04	6.60E-03	2.95E-04	7.92E-03	5.83E-03	9.76E-04	1.63E-03
366900.00	3756500.00	Fenceline	3.15E-02	3.22E-05	2.34E-02	6.33E-02	1.58E-04	6.34E-03	2.86E-04	7.72E-03	5.69E-03	9.48E-04	1.59E-03
366913.34	3756494.23	Fenceline	3.23E-02	3.30E-05	2.38E-02	6.50E-02	1.62E-04	6.50E-03	2.93E-04	7.91E-03	5.83E-03	9.72E-04	1.63E-03
366921.75	3756475.68	Fenceline	4.74E-02	4.83E-05	2.67E-02	9.52E-02	2.37E-04	9.52E-03	4.30E-04	1.16E-02	8.54E-03	1.45E-03	2.43E-03
366952.02	3756405.68	Fenceline	3.90E-02	3.94E-05	2.51E-02	7.84E-02	1.95E-04	7.85E-03	3.54E-04	9.53E-03	7.02E-03	1.17E-03	1.96E-03
366982.97	3757895.00	Fenceline	4.84E-02	4.88E-05	2.80E-02	9.72E-02	2.41E-04	9.73E-03	4.38E-04	1.18E-02	8.70E-03	1.45E-03	2.43E-03
366990.71	3756317.13	Fenceline	4.57E-02	4.57E-05	2.56E-02	9.18E-02	2.28E-04	9.18E-03	4.14E-04	1.11E-02	8.20E-03	1.37E-03	2.29E-03
367029.39	3756228.58	Fenceline	5.19E-02	5.14E-05	2.54E-02	1.04E-01	2.58E-04	1.04E-02	4.69E-04	1.26E-02	9.30E-03	1.55E-03	2.60E-03
367044.19	3757924.41	Fenceline	5.04E-02	5.61E-05	3.03E-02	1.01E-01	2.56E-04	1.01E-02	4.62E-04	1.25E-02	9.22E-03	1.53E-03	2.58E-03
367068.08	3756140.03	Fenceline	5.69E-02	5.61E-05	2.46E-02	1.14E-01	2.83E-04	1.14E-02	5.15E-04	1.38E-02	1.02E-02	1.70E-03	2.85E-03
367106.77	3756051.48	Fenceline	6.03E-02	5.92E-05	2.70E-02	1.21E-01	2.99E-04	1.21E-02	5.45E-04	1.47E-02	1.08E-02	1.80E-03	3.02E-03
367145.45	3755962.93	Fenceline	6.13E-02	6.04E-05	2.51E-02	1.23E-01	3.04E-04	1.23E-02	5.54E-04	1.49E-02	1.10E-02	1.83E-03	3.07E-03
367163.35	3757937.75	Fenceline	5.72E-02	6.14E-05	3.43E-02	1.15E-01	2.89E-04	1.15E-02	5.22E-04	1.41E-02	1.04E-02	1.73E-03	2.90E-03
367184.14	3755874.38	Fenceline	6.00E-02	5.96E-05	3.60E-02	1.21E-01	2.99E-04	1.21E-02	5.43E-04	1.46E-02	1.08E-02	1.80E-03	3.01E-03
367222.83	3755785.83	Fenceline	5.90E-02	5.67E-05	3.90E-02	1.19E-01	2.94E-04	1.19E-02	5.13E-04	1.38E-02	1.02E-02	1.70E-03	2.84E-03
367261.51	3755697.28	Fenceline	5.44E-02	5.39E-05	4.03E-02	1.09E-01	2.70E-04	1.09E-02	4.92E-04	1.32E-02	9.74E-03	1.63E-03	2.72E-03
367284.84	3757912.25	Fenceline	5.20E-02	5.24E-05	3.14E-02	1.04E-01	2.59E-04	1.05E-02	4.71E-04	1.27E-02	9.35E-03	1.56E-03	2.61E-03
367300.20	3755608.73	Fenceline	5.99E-02	5.55E-05	4.13E-02	1.20E-01	2.95E-04	1.21E-02	5.39E-04	1.44E-02	1.06E-02	1.78E-03	2.97E-03
367338.88	3755520.18	Fenceline	6.51E-02	6.18E-05	4.01E-02	1.31E-01	3.22E-04	1.31E-02	5.87E-04	1.57E-02	1.16E-02	1.94E-03	3.24E-03
367348.39	3757912.82	Fenceline	5.29E-02	5.34E-05	3.20E-02	1.06E-01	2.64E-04	1.06E-02	4.79E-04	1.29E-02	9.51E-03	1.59E-03	2.66E-03

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Table 2-1.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2018 Unmitigated Construction, Construction TAC Concentrations - Organics Only

X	Y	Receptor Type	acetaldehyde ($\mu g/m^3$)	acrolein ($\mu g/m^3$)	benzene ($\mu g/m^3$)	formaldehyde ($\mu g/m^3$)	methyl alcohol ($\mu g/m^3$)	methyl ethyl ketone ($\mu g/m^3$)	styrene ($\mu g/m^3$)	toluene ($\mu g/m^3$)	xylene, total ($\mu g/m^3$)	1,3-Butadiene ($\mu g/m^3$)	ethyl benzene ($\mu g/m^3$)
367377.57	3755431.63	Fenceline	6.79E-02	6.62E-05	4.10E-02	1.36E-01	3.37E-04	1.36E-02	6.13E-04	1.65E-02	1.21E-02	2.03E-03	3.39E-03
367401.92	3757982.92	Fenceline	5.36E-02	5.49E-05	3.24E-02	1.08E-01	2.68E-04	1.08E-02	4.86E-04	1.31E-02	9.66E-03	1.61E-03	2.70E-03
367464.88	3754530.72	Fenceline	7.01E-02	6.90E-05	4.18E-02	1.41E-01	3.48E-04	1.41E-02	6.33E-04	1.70E-02	1.25E-02	2.10E-03	3.51E-03
367498.60	3757937.52	Fenceline	5.49E-02	5.59E-05	3.34E-02	1.11E-01	2.74E-04	1.10E-02	4.98E-04	1.34E-02	9.90E-03	1.65E-03	2.76E-03
367539.80	3757864.76	Fenceline	5.50E-02	5.56E-05	3.38E-02	1.10E-01	2.74E-04	1.11E-02	4.98E-04	1.34E-02	9.89E-03	1.65E-03	2.76E-03
367552.20	3755429.80	Fenceline	7.16E-02	7.14E-05	4.27E-02	1.44E-01	3.57E-04	1.44E-02	6.48E-04	1.75E-02	1.28E-02	2.15E-03	3.59E-03
367596.95	3757879.64	Fenceline	5.60E-02	5.63E-05	3.45E-02	1.12E-01	2.79E-04	1.13E-02	5.07E-04	1.37E-02	1.01E-02	1.68E-03	2.81E-03
367628.79	3757855.59	Fenceline	5.61E-02	5.68E-05	3.47E-02	1.13E-01	2.80E-04	1.13E-02	5.09E-04	1.37E-02	1.01E-02	1.69E-03	2.82E-03
367639.51	3754548.89	Fenceline	7.29E-02	7.36E-05	4.23E-02	1.46E-01	3.63E-04	1.46E-02	6.60E-04	1.78E-02	1.31E-02	2.19E-03	3.66E-03
367696.39	3757845.44	Fenceline	5.71E-02	5.78E-05	3.55E-02	1.15E-01	2.85E-04	1.15E-02	5.17E-04	1.39E-02	1.03E-02	1.71E-03	2.87E-03
367700.81	3758169.46	Fenceline	6.34E-02	6.90E-05	3.19E-02	1.27E-01	3.21E-04	1.27E-02	5.79E-04	1.57E-02	1.16E-02	1.92E-03	3.23E-03
367707.57	3757896.37	Fenceline	5.76E-02	5.82E-05	3.55E-02	1.16E-01	2.88E-04	1.16E-02	5.22E-04	1.41E-02	1.04E-02	1.73E-03	2.90E-03
367726.83	3754527.97	Fenceline	7.34E-02	7.53E-05	4.23E-02	1.47E-01	3.67E-04	1.48E-02	6.66E-04	1.80E-02	1.32E-02	2.21E-03	3.70E-03
367734.79	3758105.67	Fenceline	6.66E-02	7.02E-05	3.39E-02	1.35E-01	3.34E-04	1.34E-02	6.06E-04	1.64E-02	1.21E-02	2.01E-03	3.37E-03
367743.72	3758010.21	Fenceline	5.84E-02	6.69E-05	3.48E-02	1.17E-01	2.98E-04	1.17E-02	5.36E-04	1.46E-02	1.08E-02	1.79E-03	3.00E-03
367785.33	3758200.53	Fenceline	6.52E-02	7.27E-05	3.52E-02	1.31E-01	3.32E-04	1.31E-02	5.97E-04	1.62E-02	1.20E-02	1.99E-03	3.33E-03
367814.14	3755427.06	Fenceline	7.34E-02	7

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X	Y	Receptor Type	acetaldehyde ($\mu g/m^3$)	acrolein ($\mu g/m^3$)	benzene ($\mu g/m^3$)	formaldehyde ($\mu g/m^3$)	methyl alcohol ($\mu g/m^3$)	methyl ethyl ketone ($\mu g/m^3$)	styrene ($\mu g/m^3$)	toluene ($\mu g/m^3$)	xylene, total ($\mu g/m^3$)	1,3-Butadiene ($\mu g/m^3$)	ethylbenzene ($\mu g/m^3$)
371767.81	3758230.27	Fenceline	1.81E-01	1.73E-04	8.27E-02	3.63E-01	8.93E-04	3.63E-02	1.53E-03	4.37E-02	3.22E-02	3.39E-03	9.01E-03
371801.04	3755399.23	Fenceline	4.60E-02	7.04E-05	3.41E-02	9.27E-02	2.51E-04	9.25E-03	4.39E-04	1.23E-02	9.16E-03	1.48E-03	2.50E-03
371812.25	3757364.20	Fenceline	1.16E+00	1.48E-03	5.48E-01	2.33E+00	6.05E-03	2.33E-01	1.08E-02	2.96E-01	2.19E-01	3.60E-02	6.06E-02
371825.62	3758161.92	Fenceline	2.08E-01	1.99E-04	8.86E-02	4.17E-01	1.03E-03	4.17E-02	1.87E-03	5.01E-02	3.69E-02	4.16E-03	1.03E-02
371849.10	3756953.29	Fenceline	4.46E-01	4.29E-04	6.21E-01	8.95E-01	2.20E-03	8.96E-02	4.02E-03	1.08E-01	7.94E-02	1.33E-02	2.22E-02
371866.03	3757363.09	Fenceline	1.77E-01	1.70E-04	7.57E-02	3.55E-01	8.73E-04	3.55E-02	1.57E-03	4.27E-02	3.15E-02	3.31E-03	8.81E-03
371867.72	3755400.96	Fenceline	4.64E-02	6.15E-05	3.51E-02	9.32E-02	2.45E-04	9.32E-03	4.33E-04	1.20E-02	8.88E-03	1.45E-03	2.45E-03
371895.02	3758059.68	Fenceline	2.10E-01	2.42E-04	9.21E-02	4.22E-01	1.08E-03	4.22E-02	1.93E-03	5.26E-02	3.89E-02	6.43E-03	1.08E-02
371898.90	3758134.17	Fenceline	1.91E-01	2.15E-04	8.60E-02	3.84E-01	9.73E-04	3.84E-02	1.75E-03	4.77E-02	3.52E-02	5.82E-03	9.77E-03
371909.58	3757435.59	Fenceline	8.22E-01	1.29E-03	4.30E-01	1.66E+00	4.52E-03	1.65E-01	7.86E-03	2.21E-01	1.65E-01	2.66E-02	4.50E-02
371916.85	3757398.54	Fenceline	4.87E-01	8.03E-04	3.86E-01	9.81E-01	2.71E-03	9.78E-02	4.69E-03	1.33E-01	9.90E-02	1.59E-02	2.70E-02
371917.20	3757362.27	Fenceline	3.54E-01	6.15E-04	2.98E-01	7.21E-01	2.00E-03	7.21E-02	5.05E-03	1.41E-01	1.06E-01	1.70E-02	2.89E-02
371927.01	3757742.18	Fenceline	1.05E+00	1.82E-03	3.96E-01	2.11E+00	5.90E-03	2.10E-01	1.02E-02	2.89E-01	2.16E-01	3.45E-02	5.86E-02
371928.06	3757790.69	Fenceline	9.87E-01	2.16E-03	4.30E-01	1.98E+00	5.97E-03	1.98E-01	9.98E-03	2.92E-01	2.20E-01	3.44E-02	5.93E-02
371934.40	3755402.69	Fenceline	4.53E-02	5.34E-05	5.63E-02	9.12E-02	2.33E-04	9.12E-03	4.18E-04	1.14E-02	8.44E-03	1.39E-03	2.34E-03
371934.40	3757852.44	Fenceline	7.93E-01	1.51E-03	3.05E-01	1.60E+00	4.60E-03	1.59E-01	7.82E-03	2.25E-01	1.69E-01	2.67E-02	4.55E-02
371937.61	3757919.43	Fenceline	5.43E-01	9.40E-04	3.73E-01	1.09E+00	3.15E-03	1.09E-01	5.01E-03	1.37E-01	1.01E-01	1.67E-02	2.79E-02
371940.82	3757986.42	Fenceline	3.35E-01	3.08E-04	1.27E-01	6.74E-01	1.65E-03	6.75E-02	3.01E-03	8.06E-02	5.92E-02	9.94E-03	1.66E-02
371944.03	3758053.41	Fenceline	2.12E-01	2.14E-04	8.57E-02	3.97E-01	1.04E-03	3.92E-02	1.79E-03	4.87E-02	3.56E-02	6.05E-03	9.98E-03
371947.54	3756951.78	Fenceline	3.72E-01	3.35E-04	4.83E-01	7.48E-01	1.82E-03	7.49E-02	3.34E-03	8.92E-02	6.55E-02	1.10E-02	1.84E-02
371954.98	3757424.18	Fenceline	5.89E-01	1.10E-03	4.07E-01	1.19E+00	3.39E-03	1.18E-01	5.78E-03	1.66E-01	1.24E-01	1.97E-02	3.36E-02
371957.70	3757423.51	Fenceline	4.94E-01	1.49E-03	4.21E-01	9.95E-01	3.33E-03	1.00E-01	5.33E-03	1.63E-01	1.24E-01	1.97E-02	3.36E-02
372031.48	3757755.88	Fenceline	8.73E-01	5.43E-03	5.99E-01	1.79E+00	8.45E-03	1.74E-01	1.20E-02	4.13E-01	3.24E-01	4.50E-02	8.02E-02
372033.85	3755399.05	Fenceline	4.14E-02	5.21E-05	3.42E-02	8.33E-02	2.35E-04	8.33E-03	3.85E-04	1.06E-02	7.83E-03	1.29E-03	2.16E-03
372045.99	3756950.26	Fenceline	3.59E-01	2.70E-04	3.24E-01	7.21E-01	1.77E-03	7.22E-02	3.17E-03	8.37E-02	6.15E-02	1.04E-02	1.73E-02
372060.42	3757422.83	Fenceline	4.25E-01	1.10E-03	3.66E-01	8.59E-01	2.73E-03	8.53E-02	4.45E-03	1.33E-01	1.01E-01	1.55E-02	2.67E-02
372097.97	3757754.97	Fenceline	1.53E+00	9.38E-03	8.60E-01	3.11E+00	1.20E-02	3.06E-01	1.81E-02	5.84E-01	4.56E-01	6.77E-02	1.15E-01
372114.62	3757440.24	Fenceline	4.62E-01	7.28E-04	3.41E-01	8.91E-01	2.46E-03	8.89E-02	4.26E-03	1.20E-01	8.99E-02	1.44E-02	2.45E-02
372133.29	3755395.42	Fenceline	4.20E-02	4.98E-05	4.29E-02	8.44E-02	2.16E-04	8.44E-03	3.87E-04	1.06E-02	7.83E-03	1.29E-03	2.17E-03
372144.43	3759948.75	Fenceline	2.69E-01	2.22E-03	2.91E-01	4.41E-01	2.36E-03	4.35E-02	4.35E-03	1.29E-01	1.01E-01	1.44E-02	2.61E-02
372152.01	3757362.33	Fenceline	2.09E-01	3.11E-04	1.91E-01	4.21E-01	1.19E-03	5.55E-02	4.13E-03	6.70E-02	1.33E-02	6.72E-03	1.06E-02
372153.80	3757418.83	Fenceline	3.34E-01	5.84E-04	2.76E-01	6.73E-01	1.89E-03	6.71E-02	3.25E-03	9.24E-02	6.92E-02	1.10E-02	1.88E-02
372154.47	3757439.86	Fenceline	4.04E-01	1.41E-04	5.96E-01	1.39E+00	3.63E-03	8.11E-02	3.96E-03	1.15E-01	2.32E-02	8.11E-03	1.30E-02
372156.97	3757518.41	Fenceline	6.50E-01	1.72E-03	4.01E-01	1.32E+00	4.20E-03	1.31E-01	8.84E-03	2.06E-01	1.56E-01	2.39E-02	4.12E-02
372159.47	3757596.98	Fenceline	1.19E+00	4.29E-03	4.94E-01	1.86E+00	5.68E-03	1.85E-01	9.55E-03	2.84E-01	2.16E-01	3.32E-02	5.70E-02
372161.97	3757675.51	Fenceline	1.35E+00	4.79E-03	6.61E-01	2.74E+00	9.82E-03	2.70E-01	1.53E-02	4.80E-01	3.69E-01	5.46E-02	9.52E-02
372164.46	3757754.06	Fenceline	1.14E+00	4.70E-03	6.19E-01	2.32E+00	8.89E-03	2.29E-01	1.35E-02	4.34E-01	3.36E-01	4.89E-02	8.58E-02
372232.73	3755391.78	Fenceline	5.04E-02	7.24E-05	5.15E-02	1.01E-01	2.84E-04	1.01E-02	4.53E-04	1.39E-02	1.03E-02	1.68E-03	2.84E-03
372242.87	3756947.24	Fenceline	2.18E-01	1.87E-04	2.48E-01	4.38E-01	1.06E-03	4.39E-02	1.95E-03	5.18E-02	3.80E-02	6.41E-03	1.07E-02
372332.18	3755388.15	Fenceline	5.71E-02	5.22E-05	7.11E-02	1.15E-01	2.80E-04	1.15E-02	5.13E-04	1.37E-02	1.01E-02	1.69E-03	2.83E-03
372341.31	3759545.73	Fenceline	2.00E-01	1.91E-03	2.61E-01	4.02E-01	2.14E-03	3.97E-02	3.98E-03	1.17E-01	9.15E-02	1.31E-02	2.38E-02
372410.73	3755381.99	Fenceline	6.10E-02	5.42E-05	7.33E-02	1.23E-01	2.98E-04	1.23E-02	5.46E-04	1.46E-02	1.07E-02	1.80E-03	3.01E-03
372439.76	3756944.21	Fenceline	1.69E-01	1.34E-04	5.79E-01	1.00E-01	2.60E-04	1.00E-02	4.44E-04	1.15E-02	8.48E-03	1.35E-03	2.37E-03
372489.28	3755375.83	Fenceline	6.42E-02	5.54E-05	7.00E-02	1.29E-01	3.12E-04	1.29E-02	5.74E-04	1.53E-02	1.12E-02	1.89E-03	3.15E-03
372538.20	3756942.70	Fenceline	1.38E-01	2.15E-04	1.45E-01	2.78E-01	7.58E-04	2.78E-02	1.32E-03	3.71E-02	2.76E-02	4.46E-03	7.55E-03
372567.83	3755369.97	Fenceline	6.69E-02	5.62E-05	6.27E-02	1.34E-01	3.23E-04	1.36E-02	5.96E-04	1.58E-02	1.16E-02	1.95E-03	3.27E-03
372621.24	3755369.96	Fenceline	6.89E-02	5.63E-05	6.65E-02	1.38E-01	3.32E-04	1.39E-02	6.12E-04	1.62E-02	1.19E-02	2.01E-03	3.36E-03
372627.96	3756505.77	Fenceline	1.02E-01	1.29E-04	5.58E-02	2.06E-01	5.34E-04	2.06E-02	9.50E-04	2.61E-02	1.94E-02	3.18E-03	5.35E-03
372628.35	3755589.05	Fenceline	1.15E-01	1.39E-04	6.25E-02	2.31E-01	5.98E-04	2.31E-02	1.06E-03	2.91E-02	2.15E-02	3.56E-03	5.98E-03
372630.81	3757026.03	Fenceline	1.37E-01	2.04E-04	8.25E-02	2.75E-01	7.42E-04	2.75E-02	1.30E-03	3.63E-02	2.70E-02	4.38E-03	7.40E-03
372632.23	3757120.53	Fenceline	1.41E-01	1.92E-04	8.49E-02	2.84E-01	7.66E-04	2.84E-02	1.34E-03	3.74E-02	2.77E-02	4.51E-03	7.62E-03
372632.53	3756752.34	Fenceline	1.31E-01	1.66E-04	6.48E-02	2.64E-01	6.85E-04	2.63E-02	1.22E-03	3.35E-02	2.48E-02	4.07E-03	6.86E-03
372634.59	3756846.76	Fenceline	1.26E-01	1.86E-04	6.93E-02	2.54E-01	6.82E-04	2.54E-02	1.20E-03	3.34E-02	2.48E-02	4.03E-03	6.81E-03
372634.70	3757211.58	Fenceline	1.33E-01	1.21E-04	5.15E-02	2.67E-01	6.91E-04	2.67E-02	1.28E-03	3.62E-02	2.77E-02	4.43E-03	7.36E-03
372636.64	3756941.19	Fenceline	1.14E-01	2.00E-04	1.22E-01	2.30E-01	6.45E-04	2.29E-02	1.11E-03	3.16E-02	2.36E-02	3.77E-03	6.41E-03
372650.02	3757248.61	Fenceline	1.31E-01	2.18E-04	1.10E-01	2.63E-01	7.29E-04	2.62E-02	1.26E-03	3.57E-02	2.67E-02	4.28E-03	7.25E-03
372671.90	3757332.14	Fenceline	1.44E-01	1.91E-04	8.61E-02	2.88E-01	7.84E-04	2.88E-02	1.38E-03	3.66E-02	2.74E-02	4.45E-03	7.53E-03
372672.36	3756975.42	Fenceline	1.20E-01	1.85E-04	1.41E-01	2.41E-01	6.55E-04	2.41E-02	1.14E-03	3.21E-02	2.39E-02	3.86E-03	6.53E-03
372672.57	3757018.04	Fenceline	1.29E-01	1.84E-04	5.77E-02	2.61E-01	6.90E-04	2.60E-02	1.22E-03	3.38E-02	2.51E-02	4.06E-03	6.86E-03
372692.63	3756588.53	Fenceline	1.14E-01	1.42E-04	5.70E-02	2.29E-01	5.93E-04	2.29E-02	1.06E-03	2.90E-02	2.15E-02	3.53E-03	5.94E-03
372694.60	3756751.91	Fenceline	1.21E-01	1.65E-04	6.11E-02	2.44E-01	6.43E-04	2.43E-02	1.14E-03	3.14E-02	2.33E-02	3.81E-03	6.42E-03
372697.78	3755368.97	Fenceline	6.26E-02	5.25E-05	6.27E-02	1.25E-01	3.02E-04	1.25E-02	5.57E-04	1.43E-02	1.04E-02	1.76E-03	2.95E-03
372704.41	3757417.13	Fenceline	1.86E-01	1.86E-04	7.95E-02	3.74E-01	9.27E-04	3.74E-02	1.69E-03	4.54E-02	3.34E-02	5.88E-03	9.34E-03
372725.34	3756505.44	Fenceline	1.04E-01	1.32E-04	5.50E-02	2.09E-01	5.42E-04	2.08E-02	9.65E-04	2.65E-02	1.97E-02	3.23E-03	5.43E-03
372730.58	3756678.55	Fenceline	1.17E-01	1.53E-04	6.76E-02	2.35E-01	6.14E-04	2.35E-02	1.09E-03	3.01E-02	2.23E-02	3.66E-03	6.13E-03
372739.22	3757507.15	Fenceline	2.54E-01	2.73E-04	9.62E-02	5.11E-01	1.28E-03	5.12E-02	2.32E-03	6.28E-02	4.64E-02	7.70E-03	1.29E-02
372756.67	3757675.41	Fenceline	1.11E-01	1.46E-04	5.74E-02	2.22E-01	5.74E-04	2.22E-02	1.04E-03	2.90E-02	2.14E-02	3.51E-03	5.87E-03
372768.35	3756973.59	Fenceline	1.07E-01	1.51E-04	1.22E-01	2.16E-01	5.74E-04	2.16E-02	1.01E-03	2.81E-02	2.09E-02	3.40E-03	5.73E-03
372770.71	3757656.89	Fenceline	3.55E-01	6.15E-04	1.38E-01	7.14E-01	1.91E-03	7.13E-02	3.35E-03	9.35E-02	6.96E-02	1.13E-02	1.91E-02
372773.23	3757598.18	Fenceline	3.20E-01	4.61E-04	2.07E-01	6.44E-01	1.72E-03	6.44E-02	2.98E-03	8.21E-02	6.05E-02	9.94E-03	1.66E-02
372774.32	3755367.98	Fenceline	7.32E-02	5.76E-05	3.93E-02	1.47E-01	3.51E-04	1.47E-02	6.49E-04	1.72E-02	1.26E-02	2.13E-03	3.55E-03
372774.75	3757745.62	Fenceline	3.54E-01	5.90E-04	1.65E-01	7.13E-01	1.91E-03	7.11E-02	3.41E-03	9.66E-02	7.22E-02	1.16E-02	1.96E-02
372784.40	3757635.26	Fenceline	3.39E-01	4.61E-04	2.06E-01	6.83E-01	1.83E-03	6.82E-02	3.19E-03	8.81E-02	6.62E-02	1.06E-02	1.80E-02
372822.71	3756505.12	Fenceline	1.02E-01	1.31E-04	5.25E-02	2.05E-01	5.33E-04	2.04E-02	9.47E-04	2.61E-02	1.93E-02	3.17E-03	5.34E-03
372839.80	3757745.93	Fenceline	3.31E-01	5.34E-04	1.74E-01	6.67E-01	1.83E-03	6.66E-02	3.18E-03	8.97E-02	6.77E-02	1.06E-02	1.84E-02
372850.87	3755366.99	Fenceline	7.48E-02	5.88E-05	4.36E-02	1.50E-01	3.58E-04	1.50E-02	6.63E-04	1.75E-02	1.28E-02	2.18E-03	3.62E-03
372864.35	3756971.76	Fenceline	9.68E-02	1.45E-04	1.07E-01	1.95E-01	5.25E-04	1.95E-02	9.19E-04	2.57E-02	1.91E-02	3.10E-03	5.24E-03
372904.85	3757746.24	Fenceline	3.11E-01	4.88E-04	1.25E-01	6.27E-01	1.71E-03	6.26E-02	2.98E-03	8.37E-02	6.24E-02	1.01E-02	1.70E-02
372910.27	3757732.13	Fenceline	3.12E-01	4.80E-04	1.21E-01	6.28E-01	1.71E-03	6.27E-02	2.97E-03	8.34E-02	6.22E-02	1.00E-02	1.70E-02
372919.43	3756436.58	Fenceline	9.36E-02	1.20E-04	4.78E-02	1.88E-01	4.90E-04	1.88E-02	8.71E-04	2.40E-02	1.78E-02	2.91E-03	4.91E-03
372920.09	3756504.78	Fenceline	9.22E-02	1.22E-04	4.86E-02	1.93E-01	5.01E-04	1.93E-02	8.92E-04	2.45E-02	1.82E-02	2.98E-03	5.02E-03
372927.41	3755366.00	Fenceline	7.57E-02	6.04E-05	4.79E-02	1.52E-01	3.63E-04	1.52E-02	6.72E-04	1.78E-02	1.30E-02	2.21E-03	3.68E-03
372927.86	3755465.33	Fenceline	7.95E-02	6.41E-05	5.62E-02	1.60E-01	3.82E-04	1.60E-02	7.06E-04	1.87E-02	1.37E-02	2.32E-03	3.87E-03
372928.32	3755564.67	Fenceline	8.29E-02	6.84E-05	6.19E-02	1.66E-01	4.00E-04	1.67E-02	7.38E-04	1.96E-02	1.44E-02	2.43E-03	4.04E-03
372928.77	3755664.00	Fenceline	8.57E-02	7.34E-05	6.29E-02	1.72E-01	4.16E-04	1.72E-02	7.65E-04	2.04E-02	1.49E-02	2.52E-03	4.20E-03
372929.23	3755763.34	Fenceline	8.74E-02	7.92E-05	5.85E-02	1.75E-01	4.28E-04	1.76E-02	7.84E-04	2.09E-02	1.54E-02	2.59E-03	4.32E-03

Table 2-1.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2018 Unmitigated Construction, Construction TAC Concentrations - Organics Only

X	Y	Receptor Type	acetaldehyde ($\mu g/m^3$)	acrolein ($\mu g/m^3$)	benzene ($\mu g/m^3$)	formaldehyde ($\mu g/m^3$)	methyl alcohol ($\mu g/m^3$)	methyl ethyl ketone ($\mu g/m^3$)	styrene ($\mu g/m^3$)	toluene ($\mu g/m^3$)	xylene, total ($\mu g/m^3$)	1,3-Butadiene ($\mu g/m^3$)	ethylbenzene ($\mu g/m^3$)
372947.75	3756971.61	Fenceline	8.92E-02	1.32E-04	9.65E-02	1.80E-01	4.83E-04	1.79E-02	8.46E-04	2.36E-02	1.76E-02	2.86E-03	4.82E-03
372992.82	3755761.76	Fenceline	8.29E-02	8.11E-05	5.22E-02	1.67E-01	4.12E-04	1.67E-02	7.49E-04	2.01E-02	1.48E-02	2.48E-03	4.15E-03
372995.87	3757731.75	Fenceline	2.88E-01	4.29E-04	1.04E-01	5.80E-01	1.56E-03	5.79E-02	2.73E-03	7.64E-02	5.69E-02	9.22E-03	1.56E-02
373004.43	3756435.35	Fenceline	3.82E-02	1.10E-04	4.55E-02	1.79E-01	4.60E-04	1.79E-02	8.44E-04	2.26E-02	1.68E-02	2.73E-03	4.60E-03
373031.15	3756971.45	Fenceline	8.27E-02	1.16E-04	8.71E-02	1.66E-01	4.42E-04	1.66E-02	7.78E-04	2.16E-02	1.61E-02	2.62E-03	4.42E-03
373056.40	3755760.18	Fenceline	7.76E-02	6.91E-05	4.79E-02	1.56E-01	3.91E-04	1.56E-02	7.07E-04	1.91E-02	1.41E-02	2.37E-03	3.95E-03
373057.59	3755829.92	Fenceline	7.55E-02	8.63E-05	3.95E-02	1.52E-01	3.86E-04	1.52E-02	6.93E-04	1.89E-02	1.40E-02	2.31E-03	3.88E-03
373058.79	3755899.65	Fenceline	7.72E-02	9.00E-05	3.94E-02	1.46E-01	3.77E-04	1.46E-02	6.72E-04	1.85E-02	1.37E-02	2.25E-03	3.78E-03
373077.68	3755969.39	Fenceline	2.68E-01	3.94E-04	9.60E-02	5.36E-01	1.44E-03	5.38E-02	2.53E-03	7.08E-02	5.28E-02	8.56E-03	1.45E-02
373089.44	3756434.13	Fenceline	8.29E-02	9.58E-05	4.24E-02	1.67E-01	4.25E-04	1.67E-02	7.62E-04	2.08E-02	1.54E-02	2.54E-03	4.26E-03
373118.11	3756991.19	Fenceline	8.02E-02	9.44E-05	8.69E-02	1.61E-01	4.12E-04	1.61E-02	7.39E-04	2.02E-02	1.49E-02	2.46E-03	4.14E-03
373137.84	3755799.39	Fenceline	6.97E-02	8.85E-05	3.81E-02	1.40E-01	3.60E-04	1.40E-02	6.44E-04	1.76E-02	1.30E-02	2.15E-03	3.62E-03
373138.33	3755829.37	Fenceline	6.67E-02	8.65E-05	3.61E-02	1.34E-01	3.50E-04	1.34E-02	6.22E-04	1.71E-02	1.27E-02	2.08E-03	3.51E-03
373138.82	3755899.35	Fenceline	6.29E-02	8.93E-05	3.41E-02	1.27E-01	3.37E-04	1.27E-02	5.93E-04	1.64E-02	1.22E-02	2.00E-03	3.37E-03
373159.49	3757731.01	Fenceline	2.50E-01	3.54E-04	9.01E-02	5.04E-01	1.34E-03	5.03E-02	2.36E-03	6.56E-02	4.87E-02	7.93E-03	1.34E-02
373174.45	3756432.91	Fenceline	7.57E-02	8.60E-05	3.89E-02	1.52E-01	3.86E-04	1.52E-02	6.94E-04	1.89E-02	1.40E-02	2.31E-03	3.88E-03
373179.17	3757023.65	Fenceline	8.20E-02	9.77E-05	3.97E-02	1.65E-01	4.05E-04	1.65E-02	7.38E-04	1.97E-02	1.46E-02	2.44E-03	4.03E-03
373213.14	3755758.34	Fenceline	6.19E-02	8.29E-05	3.32E-02	1.25E-01	3.27E-04	1.24E-02	5.79E-04	1.60E-02	1.19E-02	1.94E-03	3.28E-03
373237.84	3757077.21	Fenceline	6.59E-02	8.79E-05	3.54E-02	1.32E-01	3.42E-04	1.32E-02	6.02E-04	1.67E-02	1.24E-02	2.03E-03	3.42E-03
373241.30	3757730.64	Fenceline	2.34E-01	3.24E-04	8.44E-02	4.71E-01	1.25E-03	4.71E-02	2.20E-03	6.11E-02	4.54E-02	7.39E-03	1.25E-02
373259.45	3756431.68	Fenceline	6.82E-02	8.61E-05	3.55E-02	1.37E-01	3.56E-04	1.37E-02	6.33E-04	1.74E-02	1.29E-02	2.12E-03	3.56E-03
373288.44	3757057.29	Fenceline	5.61E-02	8.15E-05	3.08E-02	1.13E-01	2.93E-04	1.13E-02	5.20E-04	1.43E-02	1.06E-02	1.74E-03	2.92E-03
373303.06	3757072.90	Fenceline	8.19E-02	7.53E-05	9.81E-02	1.64E-01	4.02E-04	1.65E-02	7.36E-04	1.97E-02	1.45E-02	2.43E-03	4.06E-03
373317.14	3756432.03	Fenceline	6.30E-02	8.54E-05	3.31E-02	1.27E-01	3.24E-04	1.27E-02	5.90E-04	1.63E-02	1.21E-02	1.98E-03	3.34E-03
373323.11	3757390.27	Fenceline	2.20E-01	2.95E-04	7.82E-02	4.43E-01	1.18E-03	4.43E-02	2.07E-03	5.74E-02	4.27E-02	6.95E-03	1.17E-02
373323.28	3757744.87	Fenceline	2.21E-01	3.03E-04	7.93E-02	4.44E-01	1.17E-03	4.44E-02	2.07E-03	5.74E-02	4.27E-02	6.96E-03	1.17E-02
373363.74	3755899.34	Fenceline	5.64E-02	8.45E-05	3.17E-02	1.14E-01	3.02E-04	1.14E-02	5.33E-04	1.46E-02	1.09E-02	1.78E-03	3.00E-03
373365.13	3755845.96	Fenceline	6.04E-02	8.52E-05	3.31E-02	1.21E-01	3.17E-04	1.21E-02	5.56E-04	1.55E-02	1.15E-02	1.88E-03	3.17E-03
373366.53	3755935.69	Fenceline	6.37E-02	7.70E-05	3.44E-02	1.28E-01	3.29E-04	1.28E-02	5.88E-04	1.61E-02	1.19E-02	1.96E-03	3.30E-03
373367.92	3756025.41	Fenceline	6.62E-02	8.49E-05	3.57E-02	1.33E-01	3.42E-04	1.33E-02	6.12E-04	1.68E-02	1.24E-02	2.04E-03	3.43E-03
373369.31	3756115.13	Fenceline	6.75E-02	7.04E-05	3.47E-02	1.36E-01	3.39E-04	1.36E-02	6.14E-04	1.66E-02	1.22E-02	2.04E-03	3.41E-03
373369.50	3757072.16	Fenceline	7.83E-02	7.21E-05	9.20E-02	1.57E-01	3.85E-04	1.58E-02	7.04E-04	1.88E-02	1.38E-02	2.32E-03	3.88E-03
373370.37	3756189.75	Fenceline	8.97E-02	9.28E-05	1.06E-01	1.80E-01	4.41E-04	1.80E-02	8.06E-04	2.15E-02	1.58E-02	2.66E-03	4.44E-03
373370.71	3756204.86	Fenceline	6.73E-02	7.19E-05	3.46E-02	1.35E-01	3.40E-04	1.35E-02	6.14E-04	1.66E-02	1.23E-02	2.04E-03	3.42E-03
373371.24	3756247.34	Fenceline	1.01E-01	9.58E-05	1.30E-01	2.22E-01	5.44E-04	2.22E-02	9.89E-04	2.66E-02	1.96E-02	3.28E-03	5.48E-03
373372.10	3756294.58	Fenceline	6.51E-02	7.73E-05	3.33E-02	1.31E-01	3.35E-04	1.31E-02	6.01E-04	1.64E-02	1.21E-02	2.00E-03	3.37E-03
373372.12	3757334.94	Fenceline	1.15E-01	1.11E-04	9.21E-02	2.31E-01	5.68E-04	2.31E-02	1.04E-03	2.78E-02	2.05E-02	3.43E-03	5.73E-03
373372.99	3756443.53	Fenceline	1.34E-01	1.35E-04	1.69E-01	2.68E-01	6.61E-04	2.68E-02	1.21E-03	3.23E-02	2.41E-02	4.03E-03	6.73E-03
373373.72	3756378.86	Fenceline	6.12E-02	8.17E-05	3.28E-02	1.23E-01	3.23E-04	1.23E-02	5.72E-04	1.58E-02	1.17E-02	1.92E-03	3.23E-03
373373.86	3757510

Table 2-1.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2018 Unmitigated Construction, Construction TAC Concentrations - Organics Only

X	Y	Receptor Type	acetaldehyde ($\mu g/m^3$)	acrolein ($\mu g/m^3$)	benzene ($\mu g/m^3$)	formaldehyde ($\mu g/m^3$)	methyl alcohol ($\mu g/m^3$)	methyl ethyl ketone ($\mu g/m^3$)	styrene ($\mu g/m^3$)	toluene ($\mu g/m^3$)	xylene, total ($\mu g/m^3$)	1,3-Butadiene ($\mu g/m^3$)	ethyl benzene ($\mu g/m^3$)
383900.00	3755500.00	Residential	3.94E-03	5.26E-06	2.25E-03	7.93E-03	2.08E-05	7.92E-04	3.69E-05	1.02E-03	7.56E-04	1.24E-05	2.08E-04
383900.00	3756000.00	Residential	4.72E-03	6.28E-06	2.81E-03	9.49E-03	2.49E-05	9.48E-04	4.41E-05	1.22E-03	9.04E-04	1.48E-05	2.49E-04
383900.00	3757500.00	Residential	6.69E-03	9.28E-06	3.74E-03	1.35E-02	3.57E-05	1.34E-03	6.29E-05	1.74E-03	1.30E-03	2.11E-05	3.56E-04
383900.00	3762500.00	Residential	6.83E-03	9.94E-06	4.05E-03	1.38E-02	3.64E-05	1.37E-03	6.10E-05	1.69E-03	1.26E-03	2.04E-05	3.44E-04
383900.00	3763500.00	Residential	6.83E-03	9.43E-06	4.35E-03	1.37E-02	3.63E-05	1.37E-03	6.41E-05	1.78E-03	1.32E-03	2.15E-05	3.63E-04
383900.00	3764500.00	Residential	6.23E-03	8.61E-06	3.97E-03	1.25E-02	3.31E-05	1.25E-03	5.85E-05	1.62E-03	1.20E-03	1.96E-05	3.31E-04
384000.00	3753500.00	Residential	3.65E-03	4.80E-06	2.22E-03	7.34E-03	1.92E-05	7.34E-04	3.41E-05	9.40E-04	6.98E-04	1.14E-05	1.92E-04
384000.00	3754500.00	Residential	3.53E-03	4.65E-06	2.14E-03	7.10E-03	1.86E-05	7.10E-04	3.30E-05	9.10E-04	6.75E-04	1.10E-05	1.86E-04
384000.00	3755000.00	Residential	3.61E-03	4.75E-06	2.19E-03	7.26E-03	1.90E-05	7.25E-04	3.38E-05	9.30E-04	6.90E-04	1.13E-05	1.90E-04
384000.00	3756500.00	Residential	4.33E-03	5.80E-06	2.55E-03	8.71E-03	2.29E-05	8.70E-04	4.05E-05	1.12E-03	8.31E-04	1.36E-05	2.29E-04
384000.00	3757500.00	Residential	5.38E-03	8.07E-06	3.15E-03	1.08E-02	2.92E-05	1.08E-03	5.11E-05	1.43E-03	1.06E-03	1.72E-05	2.91E-04
384000.00	3758500.00	Residential	7.75E-03	1.16E-05	4.53E-03	1.56E-02	4.20E-05	1.55E-03	7.35E-05	2.06E-03	1.53E-03	2.48E-05	4.19E-04
384000.00	3759500.00	Residential	2.64E-02	3.00E-05	1.14E-02	5.31E-02	1.35E-04	5.31E-03	2.42E-04	6.60E-03	4.87E-03	8.06E-05	1.35E-03
384000.00	3760500.00	Residential	6.61E-03	9.15E-06	4.03E-03	1.35E-02	3.52E-05	1.33E-03	6.21E-05	1.72E-03	1.28E-03	2.05E-05	3.52E-04
384000.00	3761500.00	Residential	7.18E-03	9.94E-06	4.32E-03	1.45E-02	3.83E-05	1.44E-03	6.75E-05	1.87E-03	1.39E-03	2.27E-05	3.82E-04
384000.00	3762500.00	Residential	6.29E-03	8.72E-06	3.55E-03	1.26E-02	3.35E-05	1.26E-03	5.91E-05	1.64E-03	1.22E-03	1.98E-05	3.35E-04
384000.00	3763500.00	Residential	5.35E-03	8.71E-06	3.83E-03	1.28E-02	3.38E-05	1.28E-03	5.96E-05	1.65E-03	1.22E-03	2.00E-05	3.38E-04
384000.00	3764500.00	Residential	7.42E-03	1.03E-05	4.41E-03	1.49E-02	3.95E-05	1.49E-03	6.97E-05	1.93E-03	1.44E-03	2.34E-05	3.95E-04
384100.00	3756500.00	Commercial	7.51E-03	2.96E-06	3.90E-03	1.51E-02	3.70E-05	1.51E-03	7.18E-05	1.82E-03	1.34E-03	2.24E-05	3.75E-04
371141.00	3756983.00	Commercial	5.78E-03	5.58E-04	7.80E-01	1.16E+00	2.86E-03	1.16E-01	5.21E-03	1.40E-01	1.03E-01	1.72E-02	2.88E-02
371841.00	3756983.00	Commercial	4.54E-01	4.36E-04	6.35E-01	9.11E-01	2.24E-03	9.12E-02	4.09E-03	1.10E-01	8.08E-02	1.35E-02	2.26E-02
371941.00	3756983.00	Commercial	4.08E-01	4.32E-04	5.71E-01	8.21E-01	2.02E-03	8.21E-02	3.64E-03	9.87E-02	7.27E-02	1.22E-02	2.03E-02
371941.00	3757683.00	Commercial	9.17E-01	2.42E-03	3.89E-01	1.85E+00	5.92E-03	1.84E-01	9.64E-03	2.90E-01	2.20E-01	3.37E-02	5.80E-02
372041.00	3756983.00	Commercial	3.73E-01	2.85E-04	4.40E-01	7.48E-01	1.78E-03	7.50E-02	3.30E-03	8.70E-02	6.37E-02	1.08E-02	1.80E-02
372141.00	3756983.00	Commercial	2.59E-01	2.98E-04	3.91E-01	5.21E-01	1.23E-03	5.23E-02	2.33E-03	6.17E-02	4.52E-02	7.69E-03	1.28E-02
372241.00	3756983.00	Commercial	2.32E-01	2.01E-04	2.93E-01	4.67E-01	1.13E-03	4.67E-02	2.08E-03	5.53E-02	4.06E-02	6.84E-03	1.14E-02
372341.00	3756983.00	Commercial	2.02E-01	1.73E-04	2.47E-01	4.05E-01	9.78E-04	4.05E-02	1.80E-03	4.79E-02	3.51E-02	5.95E-03	9.88E-03
372441.00	3756983.00	Commercial	1.63E-01	2.14E-04	2.07E-01	3.29E-01	8.59E-04	3.28E-02	1.52E-03	4.20E-02	3.12E-02	5.11E-03	8.60E-03
372541.00	3756983.00	Commercial	1.42E-01	2.30E-04	1.78E-01	2.86E-01	7.86E-04	2.85E-02	1.36E-03	3.85E-02	2.87E-02	4.62E-03	7.83E-03
372641.00	3756983.00	Commercial	1.26E-01	2.42E-04	1.54E-01	2.52E-01	7.21E-04	2.51E-02	1.21E-03	3.50E-02	2.56E-02	4.20E-03	7.15E-03
373241.00	3756983.00	Commercial	7.13E-02	7.38E-05	7.28E-02	1.43E-01	6.48E-04	1.75E-02	1.29E-03	2.15E-03	3.60E-03	2.00E-04	1.29E-03
373341.00	3756983.00	Commercial	6.60E-02	6.98E-05	6.56E-02	1.33E-01	3.32E-04	1.33E-02	6.01E-04	1.63E-02	1.20E-02	1.99E-03	3.34E-03
373441.00	3756983.00	Commercial	5.12E-02	6.55E-05	5.26E-02	1.03E-01	3.09E-04	1.23E-02	5.58E-04	1.51E-02	1.10E-02	1.85E-03	3.10E-03
373541.00	3757583.00	Commercial	1.74E-01	2.02E-04	6.67E-02	3.50E-01	8.92E-04	3.50E-02	1.60E-03	4.37E-02	3.23E-02	5.33E-03	8.96E-03
373541.00	3757683.00	Commercial	1.97E-01	2.16E-04	7.28E-02	3.96E-01	1.00E-03	3.95E-02	1.80E-03	5.04E-02	3.72E-02	6.13E-03	1.03E-02
373441.00	3757783.00	Commercial	2.03E-01	2.79E-04	7.28E-02	4.08E-01	1.08E-03	4.08E-02	1.90E-03	5.28E-02	3.92E-02	6.39E-03	1.08E-02
373441.00	3757883.00	Commercial	1.86E-01	2.68E-04	6.81E-02	3.75E-01	1.00E-03	3.74E-02	1.76E-03	4.90E-02	3.64E-02	5.92E-03	1.00E-02
373441.00	3757983.00	Commercial	1.50E-01	2.12E-04	5.48E-02	3.02E-01	8.07E-04	3.01E-02	1.42E-03	3.96E-02	2.93E-02	4.78E-03	8.07E-03
373541.00	3756983.00	Commercial	5.70E-02	6.11E-05	5.39E-02	1.15E-01	2.88E-04	1.15E-02	5.20E-04	1.41E-02	1.04E-02	1.73E-03	2.89E-03
373541.00	3757083.00	Commercial	7.15E-02	6.57E-05	8.15E-02	1.44E-01	3.51E-04	1.44E-02	6.42E-04	1.72E-02	1.26E-02	2.12E-03	3.54E-03
373541.00	3757183.00	Commercial	8.48E-02	7.66E-05	9.98E-02	1.70E-01	4.16E-04	1.70E-02	7.62E-04	2.04E-02	1.50E-02	2.51E-03	4.20E-03
373541.00	3757283.00	Commercial	9.85E-02	9.35E-05	9.79E-02	1.98E-01	4.86E-04	1.98E-02	8.88E-04	2.38E-02	1.75E-02	2.93E-03	4.90E-03
373541.00	3757383.00	Commercial	1.16E-01	1.14E-04	1.47E-01	2.34E-01	5.74E-04	2.33E-02	1.04E-03	2.81E-02	2.06E-02	3.46E-03	5.79E-03
373541.00	3757483.00	Commercial	1.38E-01	1.45E-04	6.74E-02	2.78E-01	6.95E-04	2.78E-02	1.26E-03	3.40E-02	2.51E-02	4.17E-03	6.99E-03
373541.00	3757583.00	Commercial	1.63E-01	1.87E-04	6.24E-02	3.28E-01	8.35E-04	3.28E-02	1.50E-03	4.08E-02	3.02E-02	4.99E-03	8.38E-03
373541.00	3757683.00	Commercial	1.84E-01	2.32E-04	6.83E-02	3.67E-01	9.37E-04	3.66E-02	1.71E-03	4.68E-02	3.47E-02	5.70E-03	9.56E-03
366455.27	3763213.67	Residential/Commercial	1.47E-02	1.80E-05	6.80E-03	2.96E-02	7.63E-05	2.96E-03	1.36E-04	3.73E-03	2.76E-03	4.55E-04	7.65E-04
366669.62	3763342.53	Residential/Commercial	1.18E-02	1.56E-05	6.30E-03	2.37E-02	6.22E-05	2.37E-03	1.10E-04	3.04E-03	2.26E-03	3.70E-04	6.23E-04
366671.31	3762769.21	Residential/Commercial	1.77E-02	2.08E-05	7.98E-03	3.56E-02	9.10E-05	3.56E-03	1.63E-04	4.45E-03	3.29E-03	5.44E-04	9.14E-04
367494.53	3758314.82	Residential/Commercial	5.11E-02	6.03E-05	2.90E-02	1.03E-01	2.61E-04	1.03E-02	4.71E-04	1.29E-02	9.51E-03	1.57E-03	2.64E-03
367575.16	3764900.80	Residential/Commercial	7.93E-03	1.02E-05	4.28E-03	1.60E-02	4.12E-05	1.60E-03	7.40E-05	2.04E-03	1.51E-03	2.48E-04	4.20E-04
367638.49	3757975.16	Residential/Commercial	5.68E-02	5.83E-05	3.40E-02	1.14E-01	2.84E-04	1.14E-02	5.16E-04	1.39E-02	1.03E-02	1.71E-03	2.86E-03
367728.62	3761967.19	Residential/Commercial	1.88E-02	2.39E-05	9.35E-03	3.78E-02	9.83E-05	3.78E-03	1.75E-04	4.81E-03	3.56E-03	5.85E-04	9.85E-04
367787.59	3758292.62	Residential/Commercial	5.68E-02	6.22E-05	3.01E-02	1.14E-01	2.95E-04	1.14E-02	5.26E-04	1.44E-02	1.07E-02	1.77E-03	2.96E-03
367831.34	3763245.91	Residential/Commercial	1.10E-02	1.34E-05	6.39E-03	2.21E-02	5.69E-05	2.21E-03	1.02E-04	2.79E-03	2.06E-03	3.39E-04	5.71E-04
367900.00	3758500.00	Residential/Commercial	4.84E-02	4.92E-05	4.58E-02	9.73E-02	2.42E-04	9.74E-03	4.39E-04	1.18E-02	8.72E-03	1.45E-03	2.44E-03
367926.08	3763311.16	Residential/Commercial	1.26E-02	1.68E-05	6.78E-03	2.52E-02	6.61E-05	2.52E-03	1.18E-04	3.23E-03	2.39E-03	3.93E-04	6.62E-04
367964.98	3758232.97	Residential/Commercial	6.40E-02	7.54E-05	4.05E-02	1.29E-01	3.29E-04	1.29E-02	5.89E-04	1.61E-02	1.19E-02	1.96E-03	3.30E-03
367976.37	3763336.74	Residential/Commercial	1.16E-02	1.54E-05	6.27E-03	2.33E-02	6.09E-05	2.33E-03	1.04E-04	2.82E-03	2.09E-03	3.43E-04	5.78E-04
367978.91	3758390.10	Residential/Commercial	4.94E-02	5.69E-05	4.56E-02	9.94E-02	2.53E-04	9.94E-03	4.54E-04	1.24E-02	9.15E-03	1.51E-03	2.54E-03
368188.78	3758591.47	Residential/Commercial	4.57E-02	5.03E-05	3.35E-02	9.18E-02	2.32E-04	9.19E-03	4.18E-04	1.13E-02	8.37E-03	1.39E-03	2.33E-03
368501.11	3761632.38	Residential/Commercial	1.84E-02	2.34E-05	9.16E-03	3.70E-02	9.62E-05	3.70E-03	1.71E-04	4.68E-03	3.47E-03	5.71E-04	9.62E-04
368505.49	3758571.22	Residential/Commercial	4.96E-02	5.64E-05	2.94E-02	9.97E-02	2.53E-04	9.97E-03	4.55E-04	1.24E-02	9.15E-03	1.51E-03	2.54E-03
368673.29	3761677.69	Residential/Commercial	1.49E-02	1.83E-05	8.96E-03	2.99E-02	7.72E-05	2.99E-03	1.38E-04	3.78E-03	2.80E-03	4.60E-04	7.74E-04
368693.42	3758359.47	Residential/Commercial	6.04E-02	6.15E-05	3.56E-02	1.21E-01	3.12E-04	1.21E-02	5.48E-04	1.48E-02	1.08E-02	1.81E-03	3.04E-03
368842.92	3761590.39	Residential/Commercial	1.62E-02	1.88E-05	9.24E-03	3.26E-02	8.30E-05	3.26E-03	1.49E-04	4.06E-03	3.00E-03	4.96E-04	8.33E-04
368869.11	3754097.89	Residential/Commercial	4.25E-02	4.24E-05	2.63E-02	8.57E-02	2.17E-04	8.57E-03	3.91E-04	1.06E-02	7.84E-03	1.29E-03	2.18E-03
368869.83	3765067.00	Residential/Commercial	9.03E-03	1.05E-05	5.25E-03	1.82E-02	4.64E-05	1.82E-03	8.31E-05	2.27E-03	1.68E-03	2.77E-04	4.65E-04
368969.99	3761647.20	Residential/Commercial	1.66E-02	2.02E-05	8.56E-03	3.35E-02	8.61E-05	3.34E-03	1.54E-04	4.21E-03	3.12E-03	5.14E-04	8.64E-04
368970.54	3754677.64	Residential/Commercial	7.22E-02	7.25E-05	4.38E-02	1.46E-01	3.68E-04	1.46E-02	6.68E-04	1.80E-02	1.33E-02	2.20E-03	3.70E-03
369007.11	3762513.11	Residential/Commercial	1.25E-02	1.65E-05	7.42E-03	2.51E-02	6.58E-05	2.51E-03	1.17E-04	3.22E-03	2.39E-03	3.91E-04	6.58E-04
369027.99	3762251.91	Residential/Commercial	1.28E-02	1.75E-05	7.43E-03	2.57E-02	6.79E-05	2.57E-03	1.20E-04	3.32E-03	2.47E-03	4.03E-04	6.79E-04
369242.37	3754695.62	Residential/Commercial	1.30E-02	1.61E-05	8.00E-03	2.61E-02	6.75E-05	2.61E-03	1.20E-04	3.30E-03	2.44E-03	4.02E-04	6.76E-04
369456.98	3762567.48	Residential/Commercial	1.30E-02	1.61E-05	8.00E-03	2.61E-02	6.75E-05	2.61E-03	1.20E-04	3.30E-03	2.44E-03	4.02E-04	6.76E-04
369504.00	3754702.08	Residential/Commercial	5.91E-02	6.25E-05	3.47E-02	1.18E-01	3.04E-04	1.18E-02	5.22E-04	1.43E-02	1.06E-02	1.74E-03	2.94E-03
369767.91	3761150.98	Residential/Commercial	1.79E-02	2.36E-05	1.06E-02	3.61E-02	9.45E-05	3.61E-03	1.67E-04	4.62E-03	3.43E-03	5.61E-04	9.45E-04
369809.34	3764567.65	Residential/Commercial	8.94E-03	1.14E-05	5.28E-03	1.80E-02	4.68E-05	1.80E-03	8.32E-05	2.29E-03	1.70E-03	2.78E-04	4.68E-04
369845.18	3754154.97	Residential/Commercial	6.36E-02	7.52E-05	4.43E-02	1.28E-01	3.27E-04	1.28E-02	5.86E-04	1.60E-02	1.18E-02	1.95E-03	3.28E-03
369848.41	3753976.49	Residential/Commercial	5.39E-02	6.16E-05	3.34E-02	1.08E-01	2.75E-04	1.08E-02	4.95E-04	1.35E-02	9.95E-03	1.65E-03	2.76E-03
370097.88	3760014.31	Residential/Commercial	4.62E-02	4.90E-05	2.37E-02	9.29E-02	2.33E-04	9.30E-03	4.21E-04	1.14E-02	8.40E-03	1.40E-03	2.34E-03
370150.95	3754699.73	Residential/Commercial	6.70E-02	7.34E-05	4.88E-02	1.35E-01	3.46E-04	1.36E-02	6.12E-04	1.66E-02	1.23E-02	2.03E-03	3.41E-03
370192.96	3758860.70	Residential/Commercial	1.46E-01	1.27E-04	5.95E-02	2.92E-01	7.09E-04	2.93E-02	1.30E-03	3.47E-02	2.55E-02	4.29E-03	7.16E-03
370243.17	3759622.99	Residential/Commercial	5.64E-02	5.70E-05	2.89E-02	1.13E-01	2.82E-04	1.13E-02	5.11E-04	1.39E-02	1.01E-02	1.69E-03	2.83E-03
370246.20	3754243.12	Residential/Commercial	7.94E-02	7.58E-05	5.98E-02	1.59E-01	3.92E-04	1.60E-02	7.15E-04	1.92E-02	1.41E-02	2.36E-03	3.95E-03
370290.74	3759464.60	Residential/Commercial	5.56E-02	6.91E-05	3.04E-02	1.12E-01	2.89E-04	1.12E-02	5.16E-04	1.42E-02	1.05E-02	1.72E-03	2.90E-03
370608.78	3762239.97	Residential/Commercial	1.54E-02	1.90E-05	8.85E-03	3.10E-02	8.01E-05	3.10E-03	1.43E-04	3.92E-03	2.90E-03	4.78E-04	8.03E-04

Table 2-1.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2018 Unmitigated Construction, Construction TAC Concentrations - Organics Only

X	Y	Receptor Type	acetaldehyde ($\mu g/m^3$)	acrolein ($\mu g/m^3$)	benzene ($\mu g/m^3$)	formaldehyde ($\mu g/m^3$)	methyl alcohol ($\mu g/m^3$)	methyl ethyl ketone ($\mu g/m^3$)	styrene ($\mu g/m^3$)	toluene ($\mu g/m^3$)	xylene, total ($\mu g/m^3$)	1,3-Butadiene ($\mu g/m^3$)	ethyl benzene ($\mu g/m^3$)
370614.80	3762181.53	Residential/Commercial	1.57E-02	1.95E-05	8.98E-03	3.16E-02	8.14E-05	3.15E-03	1.45E-04	3.98E-03	2.95E-03	4.85E-04	8.16E-04
370625.96	3763759.08	Residential/Commercial	1.08E-02	1.35E-05	6.56E-03	2.16E-02	5.61E-05	2.16E-03	9.99E-05	2.74E-03	2.03E-03	3.34E-04	5.62E-04
370723.56	3763867.78	Residential/Commercial	1.12E-02	1.33E-05	6.47E-03	2.26E-02	5.78E-05	2.26E-03	1.03E-04	2.83E-03	2.09E-03	3.45E-04	5.80E-04
370968.58	3759443.63	Residential/Commercial	1.21E-02	1.64E-05	5.84E-03	2.43E-02	6.31E-05	2.43E-03	1.12E-04	3.08E-03	2.27E-03	3.75E-04	6.43E-04
371139.14	3758179.30	Residential/Commercial	2.11E-01	1.98E-04	9.13E-02	4.23E-01	1.04E-03	4.24E-02	1.90E-03	5.02E-02	3.74E-02	6.27E-03	1.05E-02
371516.05	3762577.75	Residential/Commercial	1.42E-02	1.77E-05	8.08E-03	2.86E-02	7.64E-05	2.86E-03	1.36E-04	3.74E-03	2.77E-03	4.56E-04	7.66E-04
371721.40	3759371.61	Residential/Commercial	5.32E-02	5.92E-05	2.87E-02	1.07E-01	2.71E-04	1.07E-02	4.87E-04	1.32E-02	9.78E-03	1.62E-03	2.72E-03
371973.81	3758892.65	Residential/Commercial	8.01E-02	9.30E-05	4.18E-02	1.61E-01	4.10E-04	1.61E-02	7.36E-04	2.00E-02	1.48E-02	2.45E-03	4.12E-03
372687.72	3760503.93	Residential/Commercial	2.34E-02	3.04E-05	1.22E-02	4.69E-02	1.20E-04	4.69E-03	2.14E-04	5.95E-03	4.37E-03	7.24E-04	1.21E-03
372943.49	3761051.66	Residential/Commercial	3.95E-02	5.15E-05	1.89E-02	7.94E-02	2.07E-04	7.93E-03	3.68E-04	1.02E-02	7.53E-03	1.23E-03	2.08E-03
373546.52	3760907.48	Residential/Commercial	3.52E-02	4.60E-05	1.92E-02	7.09E-02	1.85E-04	7.08E-03	3.29E-04	9.09E-03	6.72E-03	1.10E-03	1.85E-03
373736.00	3760503.93	Residential/Commercial	4.59E-02	5.76E-05	2.46E-02	9.27E-02	2.41E-04	9.26E-03	4.29E-04	1.19E-02	8.77E-03	1.43E-03	2.41E-03
373758.20	3758043.23	Residential/Commercial	1.24E-01	1.73E-04	4.73E-02	2.50E-01	6.62E-04	2.49E-02	1.17E-03	3.24E-02	2.41E-02	3.92E-03	6.61E-03
373781.04	3760892.14	Residential/Commercial	9.34E-02	1.60E-04	3.07E-02	1.86E-01	4.96E-04	1.85E-02	8.76E-04	2.41E-02	1.79E-02	2.92E-03	4.92E-03
373814.20	3756040.57	Residential/Commercial	4.72E-02	6.27E-05	2.56E-02	9.50E-02	2.49E-04	9.49E-03	4.41E-04	1.22E-02	9.04E-03	1.48E-03	2.49E-03
373990.06	3753826.14	Residential/Commercial	4.22E-02	3.89E-05	2.27E-02	8.48E-02	2.07E-04	8.49E-03	3.79E-04	1.01E-02	7.46E-03	1.25E-03	2.09E-03
374057.73	3758196.51	Residential/Commercial	4.22E-02	8.17E-05	1.09E-02	1.31E-01	1.94E-04	4.32E-03	1.64E-04	2.71E-03	7.64E-04	2.21E-04	1.57E-02
374270.95	3759873.42	Residential/Commercial	4.88E-02	6.81E-05	3.48E-02	9.83E-02	2.61E-04	9.82E-03	4.59E-04	1.29E-02	9.48E-03	1.54E-03	2.60E-03
374561.05	3754744.94	Residential/Commercial	1.05E-02	1.31E-05	5.68E-03	2.10E-02	5.45E-05	2.10E-03	9.70E-05	2.66E-03	1.98E-03	3.24E-04	5.46E-04
374688.84	3758984.90	Residential/Commercial	4.75E-02	6.59E-05	3.29E-02	9.56E-02	2.44E-04	9.56E-03	4.38E-04	1.20E-02	8.84E-03	1.46E-03	2.45E-03
374693.96	3758983.17	Residential/Commercial	4.68E-02	5.48E-05	3.22E-02	9.41E-02	2.40E-04	9.41E-03	4.31E-04	1.18E-02	8.70E-03	1.44E-03	2.41E-03
374717.46	3760574.39	Residential/Commercial	1.22E-02	1.52E-05	6.65E-03	2.45E-02	6.37E-05	2.45E-03	1.13E-04	3.11E-03	2.29E-03	3.79E-04	6.44E-04
375503.80	3764537.77	Residential/Commercial	1.20E-02	1.56E-05	6.65E-03	2.42E-02	6.31E-05	2.41E-03	1.12E-04	3.09E-03	2.29E-03	3.75E-04	6.31E-04
375614.97	3760555.10	Residential/Commercial	9.35E-02	9.10E-05	3.50E-02	1.88E-01	4.63E-04	1.88E-02	8.44E-04	2.27E-02	1.67E-02	2.79E-03	4.67E-03
375718.04	3758204.95	Residential/Commercial	9.74E-02	1.24E-04	3.95E-02	1.96E-01	5.15E-04	1.96E-02	9.09E-04	2.50E-02	1.85E-02	3.03E-03	5.10E-03
375902.79	3764940.52	Residential/Commercial	7.74E-03	1.06E-05	4.58E-03	1.56E-02	4.11E-05	1.56E-03	7.26E-05	2.01E-03	1.49E-03	2.44E-04	4.11E-04
375908.38	3760938.71	Residential/Commercial	1.32E-02	1.68E-05	7.16E-03	2.65E-02	6.91E-05	2.65E-03	1.23E-04	3.38E-03	2.50E-03	4.12E-04	6.92E-04
375920.60	3762083.38	Residential/Commercial	2.39E-02	3.15E-05	1.30E-02	4.81E-02	1.26E-04	4.80E-03	2.23E-04	6.16E-03	4.57E-03	7.48E-04	1.26E-03
376709.15	3756388.48	Residential/Commercial	1.23E-02	1.67E-05	7.34E-03	2.47E-02	6.52E-05	2.47E-03	1.15E-04	3.19E-03	2.37E-03	3.87E-04	6.52E-04
376814.39	3756388.71	Residential/Commercial	1.33E-02	1.75E-05	7.58E-03	2.68E-02	7.02E-05	2.68E-03	1.24E-04	3.43E-03	2.55E-03	4.17E-04	7.03E-04
377050.15	3761774.29	Residential/Commercial	5.42E-02	4.88E-05	2.08E-02	1.09E-01	2.65E-04	1.09E-02	4.86E-04	1.30E-02	9.54E-03	1.60E-03	2.68E-03
377052.34	3761911.90	Residential/Commercial	4.25E-02	3.41E-05	1.72E-02	8.54E-02	2.04E-04	8.56E-03	3.78E-04	1.00E-02	7.33E-03	1.24E-03	2.07E-03
377227.14	3760224.48	Residential/Commercial	1.08E-02	1.50E-05	6.01E-03	2.17E-02	5.75E-05	2.17E-03	1.01E-04	2.80E-03	2.07E-03	3.42E-04	5.75E-04
377237.88	3763993.21	Residential/Commercial	1.08E-02	1.50E-05	6.01E-03	2.17E-02	5.75E-05	2.17E-03	1.01E-04	2.80E-03	2.07E-03	3.41E-04	5.75E-04
377313.01	3756205.13	Residential/Commercial	1.22E-02	1.51E-05	6.25E-03	2.13E-02	5.60E-05	2.13E-03	9.96E-05	2.77E-03	2.05E-03	3.36E-04	5.65E-04
377330.56	3760754.60	Residential/Commercial	2.02E-02	2.74E-05	1.31E-02	4.06E-02	1.07E-04	4.06E-03	1.89E-04	5.23E-03	3.89E-03	6.34E-04	1.07E-03
377342.37	3764027.27	Residential/Commercial	1.05E-02	1.48E-05	5.90E-03	2.11E-02	5.87E-05	2.11E-03	9.87E-05	2.75E-03	2.04E-03	3.32E-04	5.60E-04
377388.19	3762083.38	Residential/Commercial	1.22E-02	1.51E-05	6.25E-03	2.13E-02	5.60E-05	2.13E-03	9.96E-05

Table 2-1.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2018 Unmitigated Construction,
Construction TAC Concentrations - Organics Only

X	Y	Receptor Type	acetaldehyde ($\mu g/m^3$)	acrolein ($\mu g/m^3$)	benzene ($\mu g/m^3$)	formaldehyde ($\mu g/m^3$)	methyl alcohol ($\mu g/m^3$)	methyl ethyl ketone ($\mu g/m^3$)	styrene ($\mu g/m^3$)	toluene ($\mu g/m^3$)	xylene, total ($\mu g/m^3$)	1,3-Butadiene ($\mu g/m^3$)	ethylbenzene ($\mu g/m^3$)
370677.81	3755313.33	Commercial	1.94E-01	1.55E-04	1.43E-01	3.90E-01	9.33E-04	3.91E-02	1.72E-03	4.57E-02	3.35E-02	5.66E-03	9.44E-03
370777.81	3755313.33	Commercial	2.03E-01	1.78E-04	1.46E-01	4.07E-01	9.88E-04	4.08E-02	1.81E-03	4.84E-02	3.55E-02	5.98E-03	9.98E-03
370877.81	3755313.33	Commercial	2.18E-01	1.74E-04	1.61E-01	4.38E-01	1.05E-03	4.38E-02	1.93E-03	5.12E-02	3.75E-02	6.35E-03	1.06E-02
370977.81	3755313.33	Commercial	1.69E-01	1.53E-04	1.15E-01	3.38E-01	8.26E-04	3.39E-02	1.51E-03	4.04E-02	2.97E-02	4.99E-03	8.34E-03
371077.81	3755313.33	Commercial	1.51E-01	1.52E-04	1.07E-01	3.03E-01	7.52E-04	3.03E-02	1.37E-03	3.68E-02	2.71E-02	4.52E-03	7.57E-03
371177.81	3755313.33	Commercial	1.25E-01	1.42E-04	8.75E-02	2.52E-01	6.40E-04	2.52E-02	1.15E-03	3.13E-02	2.31E-02	3.83E-03	6.43E-03
371277.81	3755313.33	Commercial	1.17E-01	1.27E-04	6.85E-02	2.35E-01	5.92E-04	2.35E-02	1.07E-03	2.90E-02	2.14E-02	3.55E-03	5.95E-03
371377.81	3755313.33	Commercial	1.02E-01	1.11E-04	5.03E-02	2.04E-01	5.14E-04	2.04E-02	9.28E-04	2.52E-02	1.86E-02	3.08E-03	5.17E-03
371477.81	3755313.33	Commercial	8.28E-02	1.04E-04	4.56E-02	1.67E-01	4.30E-04	1.68E-02	7.68E-04	2.11E-02	1.56E-02	2.56E-03	4.31E-03
371577.81	3755313.33	Commercial	6.49E-02	9.29E-05	4.12E-02	1.31E-01	3.49E-04	1.31E-02	6.13E-04	1.71E-02	1.27E-02	2.06E-03	3.48E-03
371677.81	3755313.33	Commercial	4.91E-02	8.16E-05	3.36E-02	9.88E-02	2.74E-04	9.86E-03	4.73E-04	1.34E-02	1.00E-02	1.61E-03	2.72E-03
371777.81	3755313.33	Commercial	4.40E-02	6.95E-05	3.17E-02	8.85E-02	2.42E-04	8.83E-03	4.21E-04	1.18E-02	8.83E-03	1.42E-03	2.41E-03
371871.82	3755232.57	Commercial	4.26E-02	5.46E-05	3.04E-02	8.57E-02	2.23E-04	8.57E-03	3.96E-04	1.09E-02	8.09E-03	1.33E-03	2.23E-03
371971.82	3755232.57	Commercial	4.14E-02	4.86E-05	3.12E-02	8.31E-02	2.12E-04	8.32E-03	3.80E-04	1.04E-02	7.67E-03	1.27E-03	2.13E-03
372071.82	3755232.57	Commercial	3.77E-02	4.81E-05	3.14E-02	7.58E-02	1.97E-04	7.57E-03	3.50E-04	9.64E-03	7.14E-03	1.17E-03	1.97E-03
372171.82	3755232.57	Commercial	3.45E-02	4.58E-05	2.92E-02	6.94E-02	1.82E-04	6.94E-03	3.23E-04	8.91E-03	6.61E-03	1.08E-03	1.82E-03
372271.82	3755232.57	Commercial	4.07E-02	4.15E-05	4.35E-02	8.17E-02	2.03E-04	8.18E-03	3.69E-04	9.95E-03	7.33E-03	1.22E-03	2.05E-03
372371.82	3755232.57	Commercial	4.80E-02	4.41E-05	5.71E-02	9.64E-02	2.36E-04	9.65E-03	4.31E-04	1.15E-02	8.48E-03	1.42E-03	2.38E-03
372471.82	3755232.57	Commercial	5.41E-02	4.82E-05	6.48E-02	1.09E-01	2.64E-04	1.09E-02	4.85E-04	1.29E-02	9.50E-03	1.60E-03	2.67E-03
372571.82	3755232.57	Commercial	5.91E-02	5.09E-05	6.45E-02	1.19E-01	2.87E-04	1.19E-02	5.28E-04	1.41E-02	1.03E-02	1.74E-03	2.90E-03
372671.82	3755232.57	Commercial	6.33E-02	5.25E-05	5.75E-02	1.27E-01	3.05E-04	1.27E-02	5.63E-04	1.50E-02	1.10E-02	1.85E-03	3.09E-03
372771.82	3755232.57	Commercial	6.66E-02	5.37E-05	4.75E-02	1.34E-01	3.20E-04	1.34E-02	5.92E-04	1.57E-02	1.15E-02	1.94E-03	3.24E-03
372871.82	3755232.57	Commercial	6.93E-02	5.53E-05	3.80E-02	1.39E-01	3.33E-04	1.39E-02	6.15E-04	1.63E-02	1.19E-02	2.02E-03	3.36E-03
372971.82	3755232.57	Commercial	7.09E-02	5.69E-05	3.89E-02	1.42E-01	3.41E-04	1.43E-02	6.30E-04	1.67E-02	1.22E-02	2.07E-03	3.45E-03

ug/m^3 = micrograms per cubic meter

Table 2-1.2
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2019 Unmitigated Construction,
Construction TAC Concentrations - Particulates Only

		ammonium ($\mu g/m^3$)	arsenic ($\mu g/m^3$)	chlorine ($\mu g/m^3$)	copper ($\mu g/m^3$)	manganese ($\mu g/m^3$)	mercury ($\mu g/m^3$)	nickel ($\mu g/m^3$)	vanadium ($\mu g/m^3$)	sulfates ($\mu g/m^3$)
Commercial - Onsite	**Max Location**	**404**	**404**	**404**	**404**	**404**	**404**	**404**	**404**	**404**
Maximum Onsite Concentration-->		5.22E-02	7.22E-04	1.40E-01	5.22E-02	3.70E-02	9.34E-04	5.08E-03	1.16E-02	6.16E-01
Average Onsite Concentration-->		2.90E-02	3.89E-04	7.61E-02	3.06E-02	2.02E-02	5.08E-04	2.88E-03	6.33E-03	3.46E-01
Minimum Onsite Concentration-->		5.67E-03	5.65E-05	1.25E-02	8.96E-03	3.34E-03	8.17E-05	6.77E-04	1.11E-03	7.58E-02
Commercial - Offsite	**Max Location**	**813**	**852**	**813**	**813**	**852**	**852**	**813**	**852**	**813**
Maximum Offsite Concentration-->		6.13E-02	5.51E-04	1.17E-01	8.67E-02	2.92E-02	7.74E-04	6.36E-03	9.33E-03	8.38E-01
Average Offsite Concentration-->		8.15E-03	8.30E-05	1.76E-02	9.03E-03	4.46E-03	1.22E-04	7.64E-04	1.44E-03	9.80E-02
Minimum Offsite Concentration-->		3.90E-04	3.63E-06	7.98E-04	5.84E-04	2.12E-04	5.45E-06	4.35E-05	7.06E-05	4.98E-03
Residential	**Max Location**	**474**	**476**	**474**	**476**	**476**	**476**	**476**	**476**	**476**
Maximum Offsite Concentration-->		3.08E-02	2.48E-04	5.96E-02	4.29E-02	1.47E-02	3.99E-04	3.21E-03	4.94E-03	3.98E-01
Average Offsite Concentration-->		2.74E-03	2.52E-05	5.51E-03	3.38E-03	1.41E-03	3.86E-05	2.69E-04	4.63E-04	3.36E-02
Minimum Offsite Concentration-->		2.28E-04	2.28E-06	4.84E-04	3.26E-04	1.30E-04	3.30E-06	2.52E-05	4.27E-05	2.87E-03
CalEPA Acute REL		3200	0.2	210	100	0.17	0.6	0.2	30	120
Commercial - Onsite										
Onsite Maximum Acute Hazard-->		1.63E-05	3.61E-03	6.65E-04	5.22E-04	2.18E-01	1.56E-03	2.54E-02	3.85E-04	5.13E-03
Onsite Average Acute Hazard-->		9.05E-06	1.95E-03	3.62E-04	3.06E-04	1.19E-01	8.46E-04	1.44E-02	2.11E-04	2.88E-03
Onsite Minimum Acute Hazard-->		1.77E-06	2.82E-04	5.97E-05	8.96E-05	1.96E-02	1.36E-04	3.39E-03	3.68E-05	6.32E-04
Commercial - Offsite										
Offsite Maximum Acute Hazard-->		1.91E-05	2.75E-03	5.57E-04	8.67E-04	1.72E-01	1.29E-03	3.18E-02	3.11E-04	6.99E-03
Offsite Average Acute Hazard-->		2.55E-06	4.15E-04	8.36E-05	9.03E-05	2.63E-02	2.03E-04	3.82E-03	4.80E-05	8.17E-04
Offsite Minimum Acute Hazard-->		1.22E-07	1.81E-05	3.80E-06	5.64E-06	1.25E-03	9.09E-06	2.17E-04	2.35E-06	4.15E-05
Residential										
Offsite Maximum Acute Hazard-->		9.62E-06	1.24E-03	2.84E-04	4.29E-04	8.66E-02	6.64E-04	1.60E-02	1.65E-04	3.32E-03
Offsite Average Acute Hazard-->		8.56E-07	1.26E-04	2.82E-05	3.38E-05	8.30E-03	6.43E-05	1.34E-03	1.54E-05	2.80E-04
Offsite Minimum Acute Hazard-->		7.12E-08	1.13E-05	2.31E-06	3.26E-06	7.63E-04	5.50E-06	1.26E-04	1.42E-06	2.39E-05

Table 2-1.2
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2019 Unmitigated Construction,
Construction TAC Concentrations - Particulates Only

X	Y	Receptor Type	ammonium ($\mu g/m^3$)	arsenic ($\mu g/m^3$)	chlorine ($\mu g/m^3$)	copper ($\mu g/m^3$)	manganese ($\mu g/m^3$)	mercury ($\mu g/m^3$)	nickel ($\mu g/m^3$)	vanadium ($\mu g/m^3$)	sulfates ($\mu g/m^3$)
369131.40	3758945.42	Residential/Commercial	4.26E-03	3.40E-05	8.33E-03	7.13E-03	2.15E-03	5.45E-05	5.09E-04	7.34E-04	5.91E-02
370190.78	3758848.26	Residential/Commercial	5.21E-03	3.55E-05	8.07E-03	5.31E-03	1.97E-03	6.44E-05	4.13E-04	6.61E-04	5.88E-02
370747.03	3763937.58	Residential/Commercial	5.88E-04	5.34E-06	1.16E-03	7.70E-04	3.04E-04	8.19E-06	5.97E-05	1.00E-04	7.15E-03
370757.72	3755124.52	Residential/Commercial	5.20E-03	6.89E-05	1.44E-02	6.93E-03	3.74E-03	8.94E-05	5.99E-04	1.19E-03	7.05E-02
370946.70	3758260.69	Residential/Commercial	7.84E-03	5.05E-05	1.14E-02	7.99E-03	2.82E-03	9.46E-05	6.12E-04	9.54E-04	8.66E-02
371368.79	3754218.82	Residential/Commercial	2.16E-03	1.75E-05	4.01E-03	3.28E-03	1.07E-03	2.81E-05	2.39E-04	3.60E-04	2.77E-02
371786.04	3754168.42	Residential/Commercial	1.77E-03	1.54E-05	3.53E-03	2.75E-03	9.31E-04	2.39E-05	2.03E-04	3.13E-04	2.34E-02
373756.25	3761779.11	Residential/Commercial	1.28E-03	1.07E-05	2.47E-03	2.03E-03	6.54E-04	1.68E-05	1.48E-04	2.21E-04	1.68E-02
367734.03	3758536.57	Residential/Commercial	3.43E-03	2.59E-05	6.04E-03	4.61E-03	1.54E-03	4.36E-05	3.42E-04	5.20E-04	4.27E-02
368069.11	3760165.13	Residential/Commercial	2.04E-03	2.09E-05	4.27E-03	2.20E-03	1.12E-03	3.06E-05	1.87E-04	3.59E-04	2.36E-02
369125.38	3763066.25	Residential/Commercial	8.94E-04	8.11E-06	1.79E-03	1.30E-03	4.76E-04	1.24E-05	9.80E-05	1.58E-04	1.14E-02
369225.45	3764227.42	Residential/Commercial	6.83E-04	6.19E-06	1.32E-03	8.16E-04	3.44E-04	9.56E-06	6.50E-05	1.13E-04	8.05E-03
370236.75	3761140.30	Residential/Commercial	1.00E-03	8.52E-06	1.98E-03	1.66E-03	5.28E-04	1.33E-05	1.20E-04	1.79E-04	1.35E-02
372218.41	3759157.53	Residential/Commercial	2.05E-03	1.97E-05	4.45E-03	2.91E-03	1.14E-03	2.92E-05	2.25E-04	3.75E-04	2.71E-02
372267.44	3762986.25	Residential/Commercial	8.06E-04	6.93E-06	1.53E-03	9.74E-04	3.89E-04	1.10E-05	7.64E-05	1.29E-04	9.68E-03
374498.14	3758643.27	Residential/Commercial	3.22E-03	3.91E-05	7.27E-03	2.08E-03	1.90E-03	5.42E-05	2.33E-04	5.87E-04	3.24E-02
375472.61	3759680.03	Residential/Commercial	3.24E-03	2.58E-05	4.85E-03	1.89E-03	1.24E-03	4.40E-05	1.85E-04	3.97E-04	2.91E-02
375514.38	3757560.61	Residential/Commercial	3.96E-03	3.80E-05	7.37E-03	2.96E-03	1.90E-03	5.84E-05	2.82E-04	6.04E-04	3.98E-02
377395.41	3759189.37	Residential/Commercial	1.66E-03	1.55E-05	3.18E-03	1.89E-03	8.48E-04	2.36E-05	1.53E-04	2.77E-04	1.87E-02
366363.62	3757753.10	Fenceline	2.38E-03	2.34E-05	4.83E-03	2.78E-03	1.28E-03	3.49E-05	2.27E-04	4.16E-04	2.76E-02
369385.71	3758351.85	Fenceline	5.74E-03	4.44E-05	1.10E-02	9.22E-03	2.79E-03	7.29E-05	6.62E-04	9.53E-04	7.85E-02
369388.19	3758584.61	Fenceline	4.65E-03	3.71E-05	8.85E-03	6.59E-03	2.22E-03	6.04E-05	4.90E-04	7.47E-04	6.09E-02
371727.30	3758286.14	Fenceline	3.95E-03	4.53E-05	9.89E-03	5.02E-03	2.48E-03	6.26E-05	4.23E-04	7.95E-04	5.36E-02
371973.18	3757657.97	Fenceline	3.60E-02	3.02E-04	8.19E-02	6.04E-02	1.89E-02	4.72E-04	4.41E-03	6.40E-03	5.49E-01
372028.99	3757658.28	Fenceline	5.84E-02	5.32E-04	1.48E-01	1.28E-01	3.60E-02	7.77E-04	8.96E-03	1.23E-02	9.96E-01
372057.72	3757303.44	Fenceline	1.87E-02	1.26E-04	2.68E-02	1.56E-02	6.60E-03	2.33E-04	1.28E-03	2.19E-03	1.89E-01
372058.94	3757365.68	Fenceline	1.97E-02	1.25E-04	2.89E-02	2.01E-02	7.02E-03	2.37E-04	1.54E-03	2.38E-03	2.16E-01
372114.76	3757419.38	Fenceline	3.65E-02	2.38E-04	4.54E-02	2.19E-02	1.16E-02	4.54E-04	1.91E-03	3.79E-03	3.21E-01
372149.51	3757302.81	Fenceline	9.99E-03	1.16E-04	2.39E-02	1.23E-02	6.30E-03	1.60E-04	1.04E-03	2.02E-03	1.25E-01
366675.72	3757743.67	Fenceline	2.51E-03	2.49E-05	5.22E-03	3.22E-03	1.39E-03	3.66E-05	2.57E-04	4.55E-04	3.03E-02
367105.41	3757963.83	Fenceline	2.86E-03	2.73E-05	5.66E-03	3.40E-03	1.50E-03	4.12E-05	2.74E-04	4.91E-04	3.33E-02
367221.30	3757911.68	Fenceline	2.55E-03	2.68E-05	5.69E-03	3.59E-03	1.52E-03	3.82E-05	2.83E-04	4.96E-04	3.25E-02
367346.43	3757955.57	Fenceline	2.56E-03	2.73E-05	5.79E-03	3.58E-03	1.54E-03	3.87E-05	2.85E-04	5.03E-04	3.27E-02
367457.41	3758010.28	Fenceline	2.57E-03	2.84E-05	5.94E-03	3.45E-03	1.58E-03	3.97E-05	2.80E-04	5.12E-04	3.25E-02
367730.93	3758222.91	Fenceline	4.23E-03	3.32E-05	8.00E-03	6.15E-03	2.01E-03	5.44E-05	4.53E-04	6.79E-04	5.58E-02
367995.30	3758074.68	Fenceline	5.45E-03	4.54E-05	1.09E-02	8.58E-03	2.78E-03	7.16E-05	6.27E-04	9.40E-04	7.43E-02
369154.15	3758166.98	Fenceline	5.41E-03	4.11E-05	1.01E-02	8.48E-03	2.57E-03	6.80E-05	6.10E-04	8.78E-04	7.30E-02
369214.54	3758209.64	Fenceline	4.83E-03	3.74E-05	9.10E-03	7.33E-03	2.30E-03	6.15E-05	5.33E-04	7.82E-04	6.46E-02
369279.67	3758015.34	Fenceline	6.15E-03	4.75E-05	1.17E-02	9.78E-03	2.97E-03	7.79E-05	7.02E-04	1.01E-03	8.37E-02
369788.09	3758340.35	Fenceline	4.66E-03	4.37E-05	1.02E-02	7.94E-03	2.68E-03	6.47E-05	5.83E-04	8.98E-04	6.55E-02
369790.55	3758580.31	Fenceline	4.60E-03	3.80E-05	8.90E-03	6.29E-03	2.23E-03	6.09E-05	4.75E-04	7.46E-04	5.96E-02
371537.21	3756959.02	Fenceline	3.68E-02	5.55E-04	1.03E-01	2.28E-02	2.68E-02	7.05E-04	2.92E-03	8.14E-03	3.90E-01
371736.26	3757371.88	Fenceline	7.11E-02	5.65E-04	1.34E-01	8.91E-02	3.25E-02	9.31E-04	6.85E-03	1.09E-02	9.32E-01
371795.72	3757393.54	Fenceline	1.81E-01	1.49E-03	2.85E-01	1.79E-01	7.99E-02	2.45E-03	1.45E-02	2.62E-02	1.79E+00
371925.67	3757658.96	Fenceline	2.70E-02	2.32E-04	6.19E-02	4.49E-02	1.44E-02	3.59E-04	3.29E-03	4.86E-03	4.09E-01
367720.95	3757929.47	Fenceline	2.75E-03	3.03E-05	6.50E-03	4.07E-03	1.72E-03	4.21E-05	3.21E-04	5.63E-04	3.12E-02
366410.42	3757645.39	Fenceline	2.43E-03	2.37E-05	4.85E-03	2.79E-03	1.29E-03	3.54E-05	2.29E-04	4.19E-04	2.80E-02
366412.06	3757743.84	Fenceline	2.42E-03	2.36E-05	4.87E-03	2.83E-03	1.29E-03	3.52E-05	2.31E-04	4.20E-04	2.80E-02
366449.10	3757556.84	Fenceline	2.46E-03	2.45E-05	5.06E-03	2.75E-03	1.32E-03	3.63E-05	2.29E-04	4.32E-04	2.83E-02
366471.13	3757711.22	Fenceline	2.45E-03	2.39E-05	4.94E-03	2.91E-03	1.31E-03	3.56E-05	2.36E-04	4.28E-04	2.85E-02
366487.79	3757468.29	Fenceline	2.54E-03	2.64E-05	5.41E-03	2.97E-03	1.43E-03	3.83E-05	2.47E-04	4.63E-04	2.99E-02
366526.47	3757379.74	Fenceline	2.66E-03	2.75E-05	5.69E-03	3.01E-03	1.50E-03	4.08E-05	2.54E-04	4.84E-04	3.11E-02
366543.32	3757684.41	Fenceline	2.50E-03	2.42E-05	5.02E-03	3.00E-03	1.33E-03	3.62E-05	2.42E-04	4.35E-04	2.92E-02
366565.16	3757291.19	Fenceline	2.88E-03	2.90E-05	5.91E-03	3.07E-03	1.55E-03	4.29E-05	2.61E-04	4.99E-04	3.28E-02
366572.51	3757755.35	Fenceline	2.66E-03	2.59E-05	5.57E-03	3.33E-03	1.44E-03	3.85E-05	2.67E-04	4.71E-04	3.28E-02
366603.85	3757202.64	Fenceline	3.04E-03	3.03E-05	6.16E-03	3.17E-03	1.61E-03	4.50E-05	2.72E-04	5.18E-04	3.41E-02
366629.35	3757738.18	Fenceline	2.67E-03	2.61E-05	5.70E-03	3.56E-03	1.48E-03	3.86E-05	2.81E-04	4.84E-04	3.39E-02
366642.53	3757114.09	Fenceline	3.16E-03	3.13E-05	6.34E-03	3.07E-03	1.64E-03	4.68E-05	2.68E-04	5.26E-04	3.51E-02
366681.22	3757025.54	Fenceline	3.25E-03	3.26E-05	6.55E-03	3.04E-03	1.70E-03	4.86E-05	2.70E-04	5.42E-04	3.58E-02
366700.77	3757739.37	Fenceline	2.52E-03	2.50E-05	5.25E-03	3.26E-03	1.40E-03	3.68E-05	2.59E-04	4.57E-04	3.05E-02
366719.91	3756936.99	Fenceline	3.26E-03	3.33E-05	6.77E-03	3.32E-03	1.76E-03	4.90E-05	2.88E-04	5.64E-04	3.69E-02
366758.59	3756848.44	Fenceline	3.18E-03	3.27E-05	6.72E-03	3.60E-03	1.77E-03	4.77E-05	3.02E-04	5.70E-04	3.71E-02
366780.64	3757782.90	Fenceline	2.51E-03	2.54E-05	5.33E-03	3.30E-03	1.42E-03	3.70E-05	2.62E-04	4.64E-04	3.07E-02
366797.28	3756759.89	Fenceline	2.97E-03	2.97E-05	6.16E-03	3.59E-03	1.63E-03	4.38E-05	2.92E-04	5.31E-04	3.52E-02
366835.96	3756671.34	Fenceline	2.68E-03	2.66E-05	5.56E-03	3.32E-03	1.47E-03	3.93E-05	2.67E-04	4.80E-04	3.22E-02
366869.69	3757831.79	Fenceline	2.49E-03	2.55E-05	5.32E-03	3.10E-03	1.40E-03	3.71E-05	2.51E-04	4.56E-04	3.00E-02
366874.65	3756582.79	Fenceline	2.35E-03	2.58E-05	5.46E-03	3.40E-03	1.46E-03	3.60E-05	2.69E-04	4.77E-04	3.03E-02
366900.00	3756500.00	Fenceline	2.41E-03	2.44E-05	5.09E-03	3.39E-03	1.39E-03	3.36E-05	2.64E-04	4.55E-04	2.95E-02
366913.34	3756494.23	Fenceline	2.24E-03	2.43E-05	5.24E-03	3.45E-03	1.40E-03	3.39E-05	2.68E-04	4.59E-04	2.97E-02
366921.75	3757860.58	Fenceline	2.47E-03	2.54E-05	5.27E-03	3.00E-03	1.39E-03	3.70E-05	2.46E-04	4.52E-04	2.95E-02
366952.02	3756405.68	Fenceline	2.31E-03	2.38E-05	5.22E-03	3.64E-03	1.40E-03	3.40E-05	2.77E-04	4.61E-04	3.07E-02
366982.97	3757895.00	Fenceline	2.47E-03	2.57E-05	5.36E-03	3.19E-03	1.43E-03	3.70E-05	2.58E-04	4.64E-04	3.04E-02
366990.71	3756317.13	Fenceline	2.59E-03	2.46E-05	5.36E-03	3.70E-03	1.42E-03	3.67E-05	2.84E-04	4.71E-04	3.27E-02
367029.39	3756228.58	Fenceline	3.08E-03	2.76E-05	5.99E-03	3.96E-03	1.57E-03	4.26E-05	3.08E-04	5.17E-04	3.73E-02
367044.19	3757929.41	Fenceline	2.70E-03	2.68E-05	5.58E-03	3.37E-03	1.49E-03	3.95E-05	2.71E-04	4.85E-04	3.23E-02
367068.08	3756140.03	Fenceline	3.56E-03	3.51E-05	7.44E-03	4.46E-03	1.95E-03	5.19E-05	3.58E-04	6.36E-04	4.32E-02
367106.77	3756051.48	Fenceline	3.93E-03	4.19E-05	8.76E-03	5.18E-03	2.33E-03	5.96E-05	4.18E-04	7.57E-04	4.88E-02
367145.45	3755962.93	Fenceline	4.11E-03	4.58E-05	9.49E-03	5.48E-03	2.54E-03	6.39E-05	4.47E-04	8.22E-04	5.13E-02
367163.35	3757937.75	Fenceline	2.86E-03	3.01E-05	6.50E-03	3.84E-03	1.68E-03	4.30E-05	3.09E-04	5.48E-04	3.69E-02

Table 2-1.2
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2019 Unmitigated Construction,
Construction TAC Concentrations - Particulates Only

X	Y	Receptor Type	ammonium ($\mu g/m^3$)	arsenic ($\mu g/m^3$)	chlorine ($\mu g/m^3$)	copper ($\mu g/m^3$)	manganese ($\mu g/m^3$)	mercury ($\mu g/m^3$)	nickel ($\mu g/m^3$)	vanadium ($\mu g/m^3$)	sulfates ($\mu g/m^3$)
367184.14	3755874.38	Fenceline	4.08E-03	4.57E-05	9.36E-03	5.09E-03	2.49E-03	6.38E-05	4.24E-04	8.02E-04	4.97E-02
367222.83	3755785.83	Fenceline	3.84E-03	4.21E-05	8.64E-03	4.87E-03	2.31E-03	5.93E-05	4.01E-04	7.47E-04	4.68E-02
367261.51	3755697.28	Fenceline	3.55E-03	3.98E-05	8.32E-03	4.51E-03	2.18E-03	5.51E-05	3.75E-04	7.03E-04	4.42E-02
367284.84	3757912.25	Fenceline	2.56E-03	2.71E-05	5.77E-03	3.63E-03	1.54E-03	3.85E-05	2.87E-04	5.02E-04	3.28E-02
367300.20	3755608.73	Fenceline	3.77E-03	3.87E-05	8.28E-03	5.01E-03	2.17E-03	5.60E-05	4.00E-04	7.08E-04	4.75E-02
367338.88	3755520.18	Fenceline	4.11E-03	4.21E-05	9.02E-03	5.78E-03	2.40E-03	6.08E-05	4.54E-04	7.86E-04	5.24E-02
367348.39	3757912.82	Fenceline	2.59E-03	2.74E-05	5.84E-03	3.70E-03	1.56E-03	3.89E-05	2.91E-04	5.09E-04	3.33E-02
367377.57	3755431.63	Fenceline	4.27E-03	4.52E-05	9.53E-03	5.77E-03	2.53E-03	6.44E-05	4.62E-04	8.24E-04	5.36E-02
367401.92	3757782.92	Fenceline	2.56E-03	2.79E-05	5.88E-03	3.51E-03	1.56E-03	3.92E-05	2.82E-04	5.07E-04	3.26E-02
367464.88	3755430.72	Fenceline	4.41E-03	4.65E-05	9.75E-03	5.72E-03	2.58E-03	6.65E-05	4.63E-04	8.38E-04	5.45E-02
367498.60	3757937.52	Fenceline	2.63E-03	2.82E-05	6.00E-03	3.69E-03	1.59E-03	3.99E-05	2.93E-04	5.20E-04	3.37E-02
367539.80	3757894.76	Fenceline	2.70E-03	2.93E-05	6.27E-03	3.97E-03	1.67E-03	4.10E-05	3.12E-04	5.46E-04	3.54E-02
367552.20	3755429.80	Fenceline	4.48E-03	4.69E-05	9.78E-03	5.51E-03	2.57E-03	6.76E-05	4.52E-04	8.34E-04	5.43E-02
367596.95	3757879.64	Fenceline	2.71E-03	2.93E-05	6.27E-03	3.96E-03	1.67E-03	4.

Table 2-1.2
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2019 Unmitigated Construction, Construction TAC Concentrations - Particulates Only

X	Y	Receptor Type	ammonium ($\mu g/m^3$)	arsenic ($\mu g/m^3$)	chlorine ($\mu g/m^3$)	copper ($\mu g/m^3$)	manganese ($\mu g/m^3$)	mercury ($\mu g/m^3$)	nickel ($\mu g/m^3$)	vanadium ($\mu g/m^3$)	sulfates ($\mu g/m^3$)
369710.08	3758581.17	Fenceline	5.03E-03	3.74E-05	9.19E-03	7.64E-03	2.32E-03	6.28E-05	5.51E-04	7.94E-04	6.69E-02
369718.16	3755459.00	Fenceline	5.03E-03	4.78E-05	1.12E-02	8.80E-03	2.94E-03	7.01E-05	6.44E-04	9.87E-04	7.79E-02
369787.02	3758286.68	Fenceline	4.89E-03	4.65E-05	1.08E-02	8.47E-03	2.86E-03	6.83E-05	6.21E-04	9.57E-04	6.93E-02
369788.19	3758398.38	Fenceline	4.42E-03	4.00E-05	9.36E-03	7.41E-03	2.46E-03	6.03E-05	5.42E-04	8.26E-04	6.15E-02
369789.37	3758489.35	Fenceline	4.24E-03	3.51E-05	8.25E-03	6.64E-03	2.15E-03	5.56E-05	4.84E-04	7.27E-04	5.65E-02
369815.24	3755457.56	Fenceline	5.40E-03	4.56E-05	1.07E-02	8.60E-03	3.08E-03	7.37E-05	6.17E-04	9.60E-04	7.19E-02
369882.84	3758285.07	Fenceline	4.44E-03	4.42E-05	1.00E-02	7.51E-03	2.66E-03	6.36E-05	5.59E-04	8.87E-04	6.22E-02
369912.32	3755456.11	Fenceline	5.01E-03	4.90E-05	1.14E-02	8.89E-03	3.01E-03	7.08E-05	6.52E-04	1.01E-03	7.22E-02
369978.66	3758283.45	Fenceline	5.24E-03	4.47E-05	9.82E-03	8.66E-03	2.57E-03	7.12E-05	5.54E-04	8.51E-04	7.34E-02
370009.40	3755454.66	Fenceline	5.55E-03	4.99E-05	1.19E-02	1.02E-02	3.17E-03	7.47E-05	7.31E-04	1.07E-03	8.04E-02
370056.44	3758282.14	Fenceline	5.50E-03	4.52E-05	1.04E-02	7.44E-03	2.64E-03	7.27E-05	5.61E-04	8.85E-04	6.94E-02
370106.48	3755453.21	Fenceline	5.32E-03	4.49E-05	1.07E-02	8.65E-03	2.77E-03	7.02E-05	6.29E-04	9.39E-04	7.08E-02
370130.90	3758282.44	Fenceline	5.63E-03	4.33E-05	1.04E-02	6.98E-03	2.50E-03	7.26E-05	5.33E-04	8.37E-04	7.12E-02
370203.56	3755451.77	Fenceline	5.11E-03	4.57E-05	1.09E-02	9.14E-03	2.87E-03	6.88E-05	6.57E-04	9.73E-04	7.35E-02
370226.81	3758159.47	Fenceline	8.53E-03	7.98E-05	1.80E-02	1.57E-02	4.74E-03	1.13E-04	1.12E-03	1.61E-03	1.24E-01
370227.55	3758221.46	Fenceline	8.00E-03	6.89E-05	1.68E-02	1.47E-02	4.42E-03	1.05E-04	1.04E-03	1.50E-03	1.16E-01
370228.30	3758283.44	Fenceline	7.48E-03	6.38E-05	1.56E-02	1.36E-02	4.08E-03	9.82E-05	9.65E-04	1.39E-03	1.08E-01
370253.14	3758188.84	Fenceline	8.40E-03	7.45E-05	1.77E-02	1.54E-02	4.64E-03	1.11E-04	1.10E-03	1.58E-03	1.22E-01
370300.64	3755450.32	Fenceline	5.27E-03	5.04E-05	1.18E-02	9.38E-03	3.11E-03	7.36E-05	6.84E-04	1.05E-03	7.58E-02
370308.97	3758176.51	Fenceline	7.49E-03	5.77E-05	1.42E-02	1.20E-02	3.62E-03	9.46E-05	8.60E-04	1.24E-03	1.02E-01
370356.87	3758202.23	Fenceline	6.58E-03	5.12E-05	1.32E-02	8.03E-03	3.38E-03	9.10E-05	6.42E-04	1.14E-03	8.27E-02
370397.72	3755448.87	Fenceline	4.98E-03	5.19E-05	1.19E-02	9.11E-03	3.18E-03	7.28E-05	6.73E-04	1.06E-03	7.32E-02
370404.21	3758225.86	Fenceline	5.55E-03	6.32E-05	1.36E-02	7.63E-03	3.52E-03	8.72E-05	6.23E-04	1.14E-03	7.40E-02
370422.64	3758284.19	Fenceline	5.78E-03	6.27E-05	1.33E-02	7.25E-03	3.44E-03	8.88E-05	6.00E-04	1.11E-03	7.75E-02
370442.78	3758228.43	Fenceline	5.61E-03	6.45E-05	1.35E-02	7.18E-03	3.53E-03	8.89E-05	6.00E-04	1.14E-03	7.18E-02
370465.02	3755455.18	Fenceline	4.84E-03	5.11E-05	1.17E-02	8.74E-03	3.11E-03	7.14E-05	6.49E-04	1.03E-03	7.09E-02
370522.53	3758282.84	Fenceline	6.68E-03	6.25E-05	1.36E-02	7.66E-03	3.48E-03	9.64E-05	6.28E-04	1.14E-03	7.87E-02
370558.15	3755458.94	Fenceline	4.71E-03	5.09E-05	1.16E-02	8.58E-03	3.09E-03	7.03E-05	6.39E-04	1.02E-03	6.94E-02
370622.42	3758281.49	Fenceline	7.49E-03	6.54E-05	1.44E-02	9.95E-03	3.76E-03	1.02E-04	7.64E-04	1.25E-03	9.39E-02
370624.63	3755467.51	Fenceline	4.61E-03	5.08E-05	1.32E-02	7.61E-03	3.39E-03	7.68E-05	6.42E-04	1.14E-03	8.27E-02
370691.11	3755476.08	Fenceline	5.01E-03	6.73E-05	1.42E-02	8.01E-03	3.79E-03	8.59E-05	6.53E-04	1.22E-03	7.15E-02
370722.31	3758280.14	Fenceline	8.01E-03	6.53E-05	1.48E-02	1.09E-02	3.84E-03	1.05E-04	8.20E-04	1.29E-03	1.01E-01
370757.38	3755493.32	Fenceline	5.16E-03	7.01E-05	1.46E-02	7.92E-03	3.90E-03	8.93E-05	6.56E-04	1.25E-03	7.23E-02
370792.87	3757985.38	Fenceline	8.26E-03	8.85E-05	1.81E-02	1.13E-02	4.70E-03	1.46E-04	1.24E-03	1.84E-03	1.03E-01
370797.01	3758107.02	Fenceline	9.11E-03	7.74E-05	1.72E-02	1.17E-02	4.43E-03	1.23E-04	9.00E-04	1.47E-03	1.13E-01
370798.36	3758194.12	Fenceline	8.94E-03	7.39E-05	1.67E-02	1.26E-02	4.36E-03	1.18E-04	9.36E-04	1.46E-03	1.14E-01
370798.51	3757946.46	Fenceline	8.86E-03	8.51E-05	1.81E-02	1.13E-02	5.36E-03	1.37E-04	9.36E-04	1.84E-03	1.03E-01
370799.71	3758281.23	Fenceline	7.96E-03	6.04E-05	1.38E-02	1.00E-02	3.51E-03	1.02E-04	7.56E-04	1.18E-03	9.76E-02
370807.53	3755529.02	Fenceline	5.07E-03	6.94E-05	1.45E-02	7.87E-03	3.87E-03	8.81E-05	6.51E-04	1.24E-03	7.17E-02
370818.52	3757901.47	Fenceline	8.45E-03	9.04E-05	1.84E-02	1.24E-02	5.93E-03	1.49E-04	1.03E-03	1.87E-03	1.03E-01
370851.08	3757864.53	Fenceline	1.00E-02	1.17E-04	2.44E-02	1.32E-02	6.41E-03	1.60E-04	1.10E-03	2.06E-03	1.30E-01
370854.34	3755560.20	Fenceline	5.28E-03	7.42E-05	1.53E-02	7.94E-03	4.09E-03	9.34E-05	6.69E-04	1.31E-03	7.38E-02
370901.14	3755591.38	Fenceline	5.60E-03	8.78E-05	1.79E-02	7.79E-03	4.34E-03	9.94E-05	6.77E-04	1.41E-03	7.53E-02
370908.58	3757858.61	Fenceline	1.06E-02	1.15E-04	2.45E-02	1.42E-02	6.42E-03	1.62E-04	1.15E-03	2.08E-03	1.38E-01
370929.68	3755646.61	Fenceline	5.68E-03	8.38E-05	1.69E-02	7.63E-03	4.49E-03	1.04E-04	6.80E-04	1.42E-03	7.69E-02
370932.48	3755705.67	Fenceline	5.92E-03	8.75E-05	1.74E-02	7.67E-03	4.77E-03	1.08E-04	6.94E-04	1.49E-03	7.82E-02
370959.17	3757378.41	Fenceline	1.87E-02	2.52E-04	4.98E-02	1.83E-02	1.29E-02	3.30E-04	1.79E-03	4.04E-03	2.25E-01
370959.96	3757296.11	Fenceline	1.87E-02	2.51E-04	5.06E-02	2.13E-02	1.32E-02	3.27E-04	1.95E-03	4.15E-03	2.35E-01
370960.75	3757213.81	Fenceline	1.87E-02	2.42E-04	4.93E-02	2.05E-02	1.28E-02	3.21E-04	1.88E-03	4.02E-03	2.22E-01
370961.54	3757131.50	Fenceline	1.65E-02	2.02E-04	4.15E-02	1.85E-02	1.07E-02	2.73E-04	1.66E-03	3.39E-03	2.05E-01
370962.33	3757049.20	Fenceline	1.54E-02	1.88E-04	3.87E-02	1.75E-02	9.97E-03	2.55E-04	1.55E-03	3.16E-03	1.91E-01
370963.12	3756966.90	Fenceline	1.45E-02	1.78E-04	3.67E-02	1.66E-02	9.44E-03	2.41E-04	1.47E-03	2.99E-03	1.81E-01
370966.07	3757852.69	Fenceline	1.10E-02	1.05E-04	2.30E-02	1.49E-02	6.00E-03	1.57E-04	1.16E-03	1.97E-03	1.42E-01
370968.09	3757808.70	Fenceline	1.18E-02	1.29E-04	2.73E-02	1.56E-02	7.16E-03	1.81E-04	1.28E-03	2.32E-03	1.53E-01
370983.75	3755705.22	Fenceline	5.45E-03	9.49E-05	1.81E-02	8.67E-03	4.82E-03	1.04E-04	7.53E-04	1.58E-03	8.77E-02
370986.42	3755628.02	Fenceline	5.85E-03	8.17E-05	1.66E-02	7.87E-03	4.41E-03	1.04E-04	6.87E-04	1.40E-03	7.78E-02
370989.10	3755550.81	Fenceline	5.61E-03	7.42E-05	1.49E-02	6.54E-03	3.92E-03	9.70E-05	5.91E-04	1.24E-03	7.04E-02
370991.77	3755473.61	Fenceline	5.39E-03	7.36E-05	1.39E-02	6.88E-03	3.68E-03	9.03E-05	5.91E-04	1.17E-03	6.59E-02
371017.44	3757371.98	Fenceline	2.01E-02	2.69E-04	5.41E-02	2.17E-02	1.40E-02	3.52E-04	2.03E-03	4.40E-03	2.50E-01
371039.92	3757778.95	Fenceline	1.30E-02	1.24E-04	2.73E-02	1.80E-02	7.12E-03	1.85E-04	1.40E-03	2.35E-03	1.69E-01
371061.56	3756965.39	Fenceline	2.17E-02	2.68E-04	5.37E-02	2.16E-02	1.40E-02	3.64E-04	2.02E-03	4.51E-03	2.58E-01
371064.57	3755405.04	Fenceline	5.11E-03	5.74E-05	1.17E-02	6.12E-03	3.10E-03	8.02E-05	5.18E-04	9.97E-04	6.23E-02
371078.64	3757842.57	Fenceline	1.32E-02	9.47E-05	2.20E-02	1.48E-02	5.36E-03	1.66E-04	1.14E-03	1.80E-03	1.58E-01
371116.65	3757378.24	Fenceline	2.61E-02	3.72E-04	7.37E-02	2.73E-02	1.92E-02	4.74E-04	2.66E-03	5.98E-03	3.24E-01
371117.35	3757906.19	Fenceline	1.51E-02	1.28E-04	3.06E-02	2.28E-02	7.49E-03	1.97E-04	1.67E-03	2.57E-03	1.81E-01
371160.25	3755403.96	Fenceline	4.77E-03	5.36E-05	1.11E-02	6.05E-03	2.93E-03	7.46E-05	5.03E-04	9.45E-04	5.95E-02
371160.00	3756963.88	Fenceline	2.74E-02	4.03E-04	7.58E-02	1.95E-02	1.97E-02	5.15E-04	2.29E-03	6.04E-03	2.99E-01
371173.76	3757954.28	Fenceline	1.46E-02	1.26E-04	3.01E-02	2.32E-02	6.65E-03	1.88E-04	1.44E-03	2.45E-03	1.80E-01
371174.47	3757986.09	Fenceline	1.32E-02	9.51E-05	2.19E-02	1.53E-02	5.43E-03	1.66E-04	1.16E-03	1.83E-03	1.57E-01
371208.04	3757297.08	Fenceline	3.22E-02	4.85E-04	9.52E-02	3.07E-02	2.46E-02	6.08E-04	3.18E-03	7.61E-03	3.94E-01
371208.86	3757379.92	Fenceline	3.87E-02	6.01E-04	1.16E-01	3.59E-02	3.03E-02	7.46E-04	3.80E-03	9.34E-03	4.63E-01
371210.97	3757210.00	Fenceline	2.21E-02	2.83E-04	5.77E-02	2.26E-02	1.47E-02	3.77E-04	2.13E-03	4.61E-03	2.74E-01
371243.87	3757985.25	Fenceline	1.18E-02	7.68E-05	1.75E-02	1.24E-02	4.33E-03	1.43E-04	9.48E-04	1.47E-03	1.33E-01
371255.94	3755402.89	Fenceline	4.21E-03	4.42E-05	9.53E-03	6.10E-03	2.52E-03	6.29E-05	4.78E-04	8.26E-04	5.52E-02
371258.45	3755962.36	Fenceline	4.52E-02	7.81E-04	1.39E-01	2.14E-02	3.69E-02	9.48E-04	3.48E-03	1.11E-02	4.60E-01
371275.69	3757208.66	Fenceline	2.14E-02	2.84E-04	5.89E-02	2.22E-02	1.47E-02	3.73E-04	2.12E-03	4.61E-03	2.76E-01
371313.27	3757984.41	Fenceline	9.58E-03	5.94E-05	1.37E-02	8.97E-03	3.25E-03	1.14E-04	6.99E-04	1.10E-03	1.05E-01
371348.54	3758024.62	Fenceline	7.48E-03	5.38E-05	1.26E-02	8.28E-03	3.03E-03	9.42E-05	6.39E-04	1.02E-03	8.74E-02
371351.62	3755401.81	Fenceline	3.75E-03	3.54E-05	8.00E-03	6.07E-03	2.13E-03	5.24E-05	4.51E-04	7.11E-04	5.08E-02

Table 2-1.2
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2019 Unmitigated Construction, Construction TAC Concentrations - Particulates Only

X	Y	Receptor Type	ammonium ($\mu g/m^3$)	arsenic ($\mu g/m^3$)	chlorine ($\mu g/m^3$)	copper ($\mu g/m^3$)	manganese ($\mu g/m^3$)	mercury ($\mu g/m^3$)	nickel ($\mu g/m^3$)	vanadium ($\mu g/m^3$)	sulfates ($\mu g/m^3$)
371356.75	3757207.46	Fenceline	2.13E-02	3.03E-04	6.35E-02	2.51E-02	1.59E-02	3.85E-04	2.34E-03	4.99E-03	2.94E-01
371356.89	3756960.85	Fenceline	5.88E-02	9.97E-04	1.77E-01	2.75E-02	4.71E-02	1.22E-03	4.45E-03	1.41E-02	5.88E-01
371402.37	3758061.24	Fenceline	5.90E-03	5.43E-05	1.26E-02	7.63E-03	3.08E-03	1.08E-04	6.47E-04	1.01E-03	9.76E-02
371437.81	3757206.27	Fenceline	2.32E-02	1.79E-04	4.16E-02	2.66E-02	1.01E-02	3.01E-04	2.07E-03	3.36E-03	2.83E-01
371447.31	3755400.73	Fenceline	3.42E-03	2.79E-05	6.40E-03	5.21E-03	1.68E-03	4.43E-05	3.80E-04	5.68E-04	4.46E-02
371455.33	3756959.34	Fenceline	5.23E-02	8.23E-04	1.44E-01	2.84E-02	3.93E-02	1.03E-03	3.97E-03	1.19E-02	5.33E-01
371474.09	3758110.88	Fenceline	5.92E-03	5.33E-05	1.31E-02	9.67E-03	3.25E-03	8.07E-05	7.15E-04	1.09E-03	8.42E-02
371518.87	3757205.07	Fenceline	2.52E-02	2.55E-04	5.54E-02	2.54E-02	1.35E-02	3.78E-04	2.23E-03	4.32E-03	3.07E-01
371537.38	3758154.69	Fenceline	6.23E-03	5.08E-05	1.31E-02	9.77E-03	3.27E-03	8.02E-05	7.26E-04	1.12E-03	9.61E-02
371542.99	3755399.65	Fenceline	3.08E-03	2.41E-05	5.68E-03	4.94E-03	1.50E-03	3.92E-05	3.53E-04	5.13E-04	4.07E-02
371599.93	3757203.87	Fenceline	2.35E-02	1.86E-04	4.55E-02	2.70E-02	1.05E-02	3.09E-04	2.13E-03	3.47E-03	3.04E-01
371603.70	3758198.51	Fenceline	5.77E-03	4.54E-05	1.08E-02	7.14E-03	2.61E-03	7.75E-05	5.44E-04	8.47E-04	7.19E-02
371613.52	3756957.47	Fenceline	2.86E-02	4.52E-04	8.38E-02	1.93E-02	2.20E-02	5.62E-04	2.42E-03	6.68E-03	3.11E-01
371638.68	3755398.58	Fenceline	2.85E-03	2.35E-05	5.55E-03	4.80E-03	1.48E-03	3.71E-05	3.44E-04	5.02E-04	3.88E-02
371652.22	3756956.31	Fenceline	2.54E-02	4.07E-04	7.55E-02	1.77E-02	1.98E-02	5.04E-04	2.20E-03	6.03E-03	2.80E-01
371664.00	3758242.33	Fenceline	4.75E-03	3.96E-05	9.02E-03	5.24E-03	2.18E-03	6.41E-05	4.21E-04	7.18E-04	5.76E-02
371678.83	3757376.47	Fenceline	5.34E-02	3.70E-04	1.02E-01	7.57E-02	2.29E-02	6.50E-04	5.54E-03	7.82E-03	7.67E-01
371680.39	3757202.68	Fenceline	2.11E-02	3.05E-04	6.44E-02	1.90E-02	1.06E-02	3.11E-04	2.06E-03	3.42E-03	2.49E-01
371683.71	3757291.78	Fenceline	3.96E-02	3.05E-04	8.82E-02	4.08E-02	1.67E-02	5.17E-04	3.27E-03	5.52E-03	4.51E-01
371734.36	3755397.50	Fenceline	2.69E-03	2.25E-05	5.31E-03	4.59E-03	1.41E-03	3.52E-05	3.28E-04	4.80E-04	3.69E-02
371750.88	3756956.00	Fenceline	1.95E-02	3.15E-04	5.77E-02	1.43E-02	1.52E-02	3.85E-04	1.72E-03	4.64E-03	2.16E-01
371767.81	3758230.27	Fenceline	4.29E-03	4.47E-05	1.00E-02	5.56E-03	2.49E-03	6.44E-05	4.53E-04	8.09E-04	5.80E-02
371801.04	3755399.23	Fenceline	2.64E-03	2.23E-05	5.26E-03	4.50E-03	1.40E-03	3.47E-05	3.23E-04	4.75E-04	3.62E-02
371812.20	3757384.00	Fenceline	1.19E-02	9.06E-04	1.73E-01	1.01E-01	4.71E-02	1.56E-03	1.01E-02	1.55E-02	1.13E+00
371825.62	3758161.92	Fenceline	4.65E-03	4.38E-05	1.01E-02	5.75E-03	2.45E-03	6.63E-05	4.63E-04	8.00E-04	6.11E-02
371849.10	3756953.29	Fenceline	1.56E-02	2.41E-04	4.55E-02	4.17E-02	1.18E-02	3.01E-04	1.37E-03	3.62E-03	1.76E-01
371866.03	3757369.09	Fenceline	7.62E-02	4.98E-04	8.80E-02	4.98E-02	2.28E-02	9.18E-04	4.98E-03	7.23E-03	6.66E-01
371867.72	3755400.96	Fenceline	2.62E-03	2.17E-05	5.14E-03	4.21E-03	1.34E-03	3.43E-05	3.05E-04	4.54E-04	3.54E-02
371895.02	3758059.68	Fenceline	6.16E-03	4.65E-05	1.07E-02	6.30E-03	2.55E-03	7.97E-05	5.05E-04	8.44E-04	7.26E-02
371898.90	3758154.17	Fenceline	8.05E-03	5.15E-05	1.15E-02	8.03E-03	2.82E-03	9.75E-05	6.23E-04	9.75E-04	8.61E-02
371909.58	3757435.59	Fenceline	2.18E-01	1.65E-03	3.00E-01	1.81E-01	8.52E-02	2.85E-03	1.51E-02	2.80E-02	1.97E+00
371916.85	3757398.54	Fenceline	5.91E-02	4.40E-04	8.48E-02	5.14E-02	2.31E-02	7.66E-04	4.22E-03	7.60E-03	5.67E-01
371917.20	3757362.27	Fenceline	6.00E-02	4.38E-04	8.39E-02	5.32E-02	2.31E-02	7.70E-04	4.31E-03	7.65E-03	5.71E-01
371927.01	3757742.18	Fenceline	2.47E-02	2.60E-04	8.44E-02	4.32E-02	1.57E-02	3.64E-04	3.08E-03	5.16E-03	3.32E-01
371928.06	3757790.69	Fenceline	2.66E-02	2.83E-04	7.21E-02	4.95E-02	1.74E-02	3.92E-04	3.70E-03	5.76E-03	4.30E-01
371934.40	3757402.69	Fenceline	2.68E-02	2.31E-05	5.43E-03	4.49E-03	1.43E-03	3.56E-05	3.25E-04	4.85E-04	3.68E-02
371934.47	3757744.18	Fenceline	2.00E-02	2.29E-04	6.54E-02	3.32E-02	1.34E-02	3.10E-04	2.64E-03	4.43E-03	3.10E-01
371937.61	3757919.43	Fenceline	1.36E-02	1.44E-04	3.07E-02	1.43E-02	7.65E-03	2.09E-04	1.25E-03	2.45E-03	1.67E-01
371940.82	3757986.42	Fenceline	9.91E-03	8.71E-05	1.87E-02	8.33E-03	4.49E-03	1.39E-04	7.44E-04	1.44E-03	1.10E-01
371944.03	3757402.70	Fenceline	7.33E-03	7.65E-05	1.23E-02	6.10E-03	2.93E-03	9.67E-05	4.92E-04	1.02E-03	8.58E-02
371947.54	3756951.78	Fenceline	1.29E-02	1.92E-04	3.79E-02	1.22E-02	9.75E-03	2.42E-04	1.27E-03	3.02E-03	1.61E-01
371954.98	3757424.18	Fenceline	9.79E-02	6.23E-04	1.15E-01	6.22E-02	3.06E-02	1.20E-03	5.39E-03	1.01E-02	8.32E-01
371957.73	3757443.51	Fenceline	8.57E-02	4.18E-04	8.28E-02	9.44E-02	2.07E-02	7.92E-04	4.31E-03	6.98E-03	5.58E-01
372031.48	3757755.88	Fenceline	6.41E-02	5.43E-04	1.54E-01	1.34E-01	3.69E-02	8.24E-04	9.37E-03	1.27E-02	1.06E+00
372033.85	3755399.05	Fenceline	2.74E-03	2.62E-05	5.96E-03	4.59E-03	1.59E-03	3.85E-05	3.39E-04	5.31E-04	3.78E-02
372045.99	3756950.26	Fenceline	1.17E-02	1.58E-04	3.23E-02	1.44E-02	8.47E-03	2.05E-04	1.47E-03	2.05E-03	1.53E-01
372060.42	3757422.83	Fenceline	4.69E-02	3.11E-04	6.14E-02	2.96E-02	1.53E-02	5.86E-04	2.63E-03	5.01E-03	4.26E-01
372097.97	3757754.97	Fenceline	8.97E-02	7.11E-04	1.92E-01	1.56E-01	4.57E-02	1.14E-03	1.11E-02	1.56E-02	1.34E+00
372114.62	3757440.24	Fenceline	4.24E-02	3.23E-04	6.21E-02	3.23E-02	1.64E-02	5.59E-04	2.53E-03	5.34E-03	4.31E-01
372133.29	3755395.42	Fenceline	2.74E-03	2.55E-05	5.75E-03	4.38E-03	1.53E-03	3.80E-05	3.25E-04	5.12E-04	3.67E-02
372144.43	3756948.75	Fenceline	1.13E-02	1.32E-04	2.64E-02	1.20E-02	6.96E-03	1.83E-04	1.08E-03	2.21E-03	1.34E-01
372152.01	3757458.10	Fenceline	2.64E-02	2.04E-04	4.13E-02	2.00E-02	1.45E-02	3.93E-04	1.93E-03	4.54E-03	3.51E-01
372153.80	3757418.83	Fenceline	3.15E-02	2.06E-04	3.95E-02	1.87E-02	9.99E-03	3.92E-04	1.69E-03	3.27E-03	2.78E-01
372154.47	3757439.86	Fenceline	3.61E-02	2.72E-04	5.27E-02	2.69E-02	1.38E-02	4.74E-04	2.35E-03	4.49E-03	3.42E-01
372156.97	3757418.41	Fenceline	3.83E-02	2.87E-04	5.44E-02	2.32E-02	1.46E-02	5.27E-04	2.50E-03	5.03E-03	3.63E-01
372159.47	3757596.96	Fenceline	3.65E-02	2.61E-04	6.80E-02	5.20E-02	1.60E-02	4.50E-04	3.79E-03	5.46E-03	4.88E-01
372161.97	3757675.51	Fenceline	6.45E-02	4.72E-04	1.33E-01	1.03E-01	3.01E-02	7.95E-04	7.42E-03	1.03E-02	9.59E-01
372164.46	3757754.06	Fenceline	7.09E-02	5.15E-04	1.47E-01	1.04E-01	3.18E-02	8.78E-04	7.90E-03	1.03E-02	9.79E-01
372232.73	3755391.79	Fenceline	2.72E-03	2.88E-05	6.22E-03	3.97E-03	1.65E-03	4.08E-05	3.11E-04	5.39E-04	3.57E-02
372242.87	3756947.24	Fenceline	9.06E-03	1.09E-04	2.15E-02	9.30E-03	5.66E-03	1.49E-04	8.50E-04	1.79E-03	1.07E-01
372332.16	3755388.15	Fenceline	2.64E-03	2.91E-05	6.00E-03	3.64E-03	1.67E-03	4.03E-05	2.96E-04	5.13E-04	3.32E-02
372341.31	3756945.73	Fenceline	7.83E-03	9.29E-05	1.88E-02	9.73E-03	5.03E-03	1.27E-04	8.27E-04	1.61E-03	9.74E-02
372410.73	3755381.99	Fenceline	2.57E-03	2.95E-05	6.11E-03	3.40E-03	1.62E-03	4.06E-05	2.80E-04	5.24E-04	3.25E-02
372439.76	3756944.17	Fenceline	7.05E-03	8.25E-05	1.66E-02	8.14E-03	4.40E-03	1.13E-04	7.06E-04	1.41E-03	8.54E-02
372489.20	3755375.83	Fenceline	2.48E-03	2.96E-05	6.06E-03	3.21E-03	1.62E-03	4.06E-05	2.61E-04	5.24E-04	3.16E-02
372538.20	3756942.70	Fenceline	6.60E-03	8.64E-05	1.72E-02	5.93E-03	4.38E-03	1.15E-04	5.94E-04	1.36E-03	7.72E-02
372587.83	3755369.67	Fenceline	2.37E-03	2.85E-05	5.90E-03	3.17E-03	1.56E-03	3.84E-05	2.64E-04	5.02E-04	3.06E-02
372621.24	3755368.96	Fenceline	2.29E-03	2.77E-05	5.78E-03	3.18E-03	1.53E-03	3.73E-05	2.54E-04	4.94E-04	3.00E-02
372627.96	3756505.77	Fenceline	4.80E-03	6.78E-05	1.35E-02	4.16E-03	3.41E-03	8.75E-05	4.39E-04	1.05E-03	5.80E-

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X	Y	Receptor Type	ammonium (µg/m³)	arsenic (µg/m³)	chlorine (µg/m³)	copper (µg/m³)	manganese (µg/m³)	mercury (µg/m³)	nickel (µg/m³)	vanadium (µg/m³)	sulfates (µg/m³)
372241.00	3757983.00	Residential	1.78E-02	1.59E-04	3.50E-02	1.71E-02	8.39E-03	2.50E-04	1.46E-03	2.72E-03	2.10E-01
372341.00	3757883.00	Residential	3.04E-02	2.48E-04	5.96E-02	4.29E-02	1.47E-02	3.99E-04	3.21E-03	4.94E-03	3.98E-01
372341.00	3757983.00	Residential	2.21E-02	1.75E-04	4.07E-02	2.39E-02	9.66E-03	2.92E-04	1.91E-03	3.19E-03	2.68E-01
372900.00	3753500.00	Residential	1.21E-03	1.03E-05	2.38E-03	1.97E-03	6.33E-04	1.60E-05	1.43E-04	2.14E-04	1.62E-02
372900.00	3754500.00	Residential	1.57E-03	1.77E-05	3.81E-03	2.43E-03	1.02E-03	2.43E-05	1.90E-04	3.32E-04	2.12E-02
372900.00	3759500.00	Residential	1.71E-03	1.60E-05	3.50E-03	2.24E-03	9.28E-04	2.40E-05	1.88E-04	3.08E-04	2.15E-02
372900.00	3760500.00	Residential	1.12E-03	1.06E-05	2.36E-03	1.63E-03	6.16E-04	1.58E-05	1.24E-04	2.04E-04	1.45E-02
372900.00	3761500.00	Residential	1.30E-03	1.15E-05	2.41E-03	1.21E-03	6.05E-04	1.83E-05	1.04E-04	1.96E-04	1.43E-02
372900.00	3762500.00	Residential	1.17E-03	9.98E-06	2.07E-03	1.62E-03	5.38E-04	1.50E-05	1.19E-04	1.81E-04	1.45E-02
373541.00	3757783.00	Residential	1.11E-02	9.07E-05	1.93E-02	1.17E-02	4.94E-03	1.49E-04	3.39E-04	1.63E-03	1.24E-01
373541.00	3757883.00	Residential	8.37E-03	9.99E-05	2.11E-02	1.05E-02	5.42E-03	1.36E-04	8.96E-04	1.73E-03	1.09E-01
373641.00	3757883.00	Residential	7.37E-03	1.78E-04	2.28E-02	7.36E-03	5.82E-03	1.42E-04	7.78E-04	1.80E-03	1.04E-01
373641.00	3756983.00	Residential	2.79E-03	3.71E-05	7.24E-03	2.89E-03	1.92E-03	4.87E-05	2.73E-04	6.02E-04	3.27E-02
373641.00	3757083.00	Residential	3.46E-03	3.84E-05	7.38E-03	3.09E-03	1.96E-03	5.47E-05	2.88E-04	6.20E-04	3.68E-02
373641.00	3757183.00	Residential	4.38E-03	3.95E-05	7.48E-03	3.60E-03	2.49E-03	7.02E-05	3.51E-04	7.94E-04	4.59E-02
373641.00	3757283.00	Residential	5.87E-03	5.58E-05	1.07E-02	4.19E-03	2.77E-03	8.63E-05	4.04E-04	8.78E-04	5.74E-02
373641.00	3757383.00	Residential	8.64E-03	6.66E-05	1.26E-02	5.15E-03	3.22E-03	1.16E-04	4.93E-04	1.03E-03	7.76E-02
373641.00	3757483.00	Residential	1.26E-02	9.41E-05	1.79E-02	8.29E-03	6.02E-03	1.88E-04	8.34E-04	1.66E-03	1.20E-01
373641.00	3757583.00	Residential	1.53E-02	1.93E-04	3.58E-02	1.20E-02	9.63E-03	2.62E-04	1.25E-03	2.99E-03	1.60E-01
373641.00	3757683.00	Residential	1.41E-02	1.53E-04	2.93E-02	1.21E-02	7.77E-03	2.21E-04	1.14E-03	2.46E-03	1.49E-01
373641.00	3757783.00	Residential	1.11E-02	9.86E-05	1.95E-02	1.13E-02	5.05E-03	1.52E-04	3.22E-04	1.64E-03	1.29E-01
373641.00	3757883.00	Residential	8.26E-03	8.72E-05	1.50E-02	1.00E-02	3.81E-03	1.09E-04	7.75E-04	1.27E-03	9.92E-02
373641.00	3757983.00	Residential	6.32E-03	9.22E-05	1.90E-02	7.42E-03	4.84E-03	1.16E-04	6.97E-04	1.51E-03	8.51E-02
373687.89	3757980.08	Residential	6.35E-03	9.27E-05	1.83E-02	7.46E-03	4.11E-03	1.04E-04	6.57E-04	1.52E-03	8.54E-02
373900.00	3753500.00	Residential	1.28E-03	1.51E-05	3.07E-03	1.61E-03	8.19E-04	2.06E-05	1.36E-04	2.62E-04	1.58E-02
373900.00	3754500.00	Residential	1.82E-03	1.60E-05	3.44E-03	2.15E-03	8.91E-04	2.52E-05	1.70E-04	2.93E-04	2.15E-02
373900.00	3755500.00	Residential	1.87E-03	1.78E-05	3.79E-03	2.12E-03	9.87E-04	2.72E-05	1.75E-04	3.21E-04	2.19E-02
373900.00	3756500.00	Residential	2.42E-03	2.65E-05	5.27E-03	2.56E-03	1.40E-03	3.77E-05	2.23E-04	4.47E-04	2.74E-02
373900.00	3757500.00	Residential	1.01E-02	1.01E-04	1.89E-02	7.08E-03	4.97E-03	1.52E-04	6.99E-04	1.57E-03	9.85E-02
373900.00	3758500.00	Residential	5.01E-03	7.78E-05	1.45E-02	5.42E-03	2.30E-03	1.73E-03	6.64E-05	2.44E-04	1.46E-01
373900.00	3760500.00	Residential	1.59E-03	1.32E-05	2.93E-03	2.04E-03	7.57E-04	2.12E-05	1.56E-04	2.52E-04	1.92E-02
373900.00	3761500.00	Residential	1.51E-03	1.25E-05	2.89E-03	2.36E-03	7.64E-04	1.98E-05	1.71E-04	2.58E-04	1.97E-02
373900.00	3764500.00	Residential	7.73E-04	6.94E-06	1.52E-03	1.02E-03	3.96E-04	1.07E-05	7.87E-05	1.31E-04	9.51E-03
374900.00	3754500.00	Residential	2.25E-03	1.11E-05	2.69E-03	1.47E-03	7.10E-04	1.93E-05	1.22E-04	2.30E-04	1.53E-02
374900.00	3755500.00	Residential	1.53E-03	1.37E-05	2.92E-03	1.95E-03	7.75E-04	2.12E-05	1.51E-04	2.56E-04	1.81E-02
374900.00	3756500.00	Residential	1.33E-03	1.38E-05	2.93E-03	1.88E-03	7.84E-04	1.98E-05	1.48E-04	2.57E-04	1.78E-02
374900.00	3757500.00	Residential	5.13E-03	5.27E-05	1.03E-02	3.93E-03	2.56E-03	7.83E-05	3.76E-04	8.11E-04	5.28E-02
374900.00	3759500.00	Residential	4.67E-03	3.85E-05	7.79E-03	3.46E-03	1.94E-03	6.39E-05	3.14E-04	6.25E-04	4.70E-02
374900.00	3760500.00	Residential	2.04E-03	1.45E-05	3.32E-03	2.28E-03	8.19E-04	2.55E-05	1.74E-04	2.75E-04	2.36E-02
374900.00	3761500.00	Residential	1.74E-03	1.45E-05	3.21E-03	2.52E-03	8.25E-04	1.96E-05	1.60E-04	2.74E-04	2.02E-02
374900.00	3762500.00	Residential	1.05E-03	8.89E-06	1.98E-03	1.45E-03	5.20E-04	1.41E-05	1.09E-04	1.74E-04	1.30E-02
374900.00	3763500.00	Residential	6.47E-04	5.65E-06	1.30E-03	1.02E-03	3.42E-04	8.71E-06	7.49E-05	1.15E-04	8.64E-03
374900.00	3764500.00	Residential	6.15E-04	5.09E-06	1.27E-03	8.71E-04	3.25E-04	8.01E-06	6.69E-05	1.08E-04	8.13E-03
375900.00	3753500.00	Residential	9.95E-04	1.03E-05	2.08E-03	1.09E-03	5.52E-04	1.50E-05	9.26E-05	1.78E-04	1.13E-02
375900.00	3755500.00	Residential	1.11E-03	1.15E-05	2.45E-03	1.53E-03	6.52E-04	1.66E-05	1.21E-04	2.13E-04	1.39E-02
375900.00	3756500.00	Residential	1.05E-03	1.07E-05	2.27E-03	1.47E-03	6.12E-04	1.53E-05	1.15E-04	1.94E-04	1.37E-02
375900.00	3760500.00	Residential	4.49E-03	4.38E-05	9.16E-03	4.90E-03	2.36E-03	6.56E-05	4.10E-04	7.63E-04	5.24E-02
375900.00	3761500.00	Residential	9.73E-04	9.26E-06	2.02E-03	1.18E-03	5.13E-04	1.40E-05	9.50E-05	1.68E-04	1.20E-02
375900.00	3762500.00	Residential	1.16E-03	1.03E-05	2.21E-03	1.75E-03	6.12E-04	1.60E-05	1.32E-04	1.65E-04	1.45E-02
375900.00	3763500.00	Residential	9.94E-04	8.36E-06	1.79E-03	1.20E-03	4.71E-04	1.34E-05	9.32E-05	1.56E-04	1.15E-02
375900.00	3764500.00	Residential	4.39E-04	4.36E-06	9.43E-04	6.47E-04	2.52E-04	6.36E-06	4.97E-05	8.33E-05	5.62E-03
376084.62	3761776.42	Residential	5.23E-03	4.22E-05	9.06E-03	3.93E-03	2.56E-03	7.83E-05	3.76E-04	8.11E-04	5.28E-02
376900.00	3755500.00	Residential	8.15E-04	7.84E-06	1.66E-03	1.04E-03	4.39E-04	1.17E-05	8.22E-05	1.44E-04	9.77E-03
376900.00	3756500.00	Residential	8.41E-04	8.69E-06	1.86E-03	1.23E-03	4.98E-04	1.25E-05	9.53E-05	1.64E-04	1.07E-02
376900.00	3758500.00	Residential	5.15E-03	4.74E-05	1.02E-02	4.03E-03	2.57E-03	9.54E-04	3.24E-05	2.01E-04	1.21E-02
376900.00	3759500.00	Residential	1.55E-03	1.49E-05	3.16E-03	2.02E-03	8.41E-04	2.23E-05	1.59E-04	2.76E-04	1.87E-02
376900.00	3760500.00	Residential	2.04E-03	2.14E-05	4.08E-03	1.55E-03	1.07E-03	3.15E-05	1.51E-04	3.37E-04	2.07E-02
376900.00	3761500.00	Residential	1.16E-03	1.03E-05	2.21E-03	1.75E-03	6.12E-04	1.60E-05	1.32E-04	1.65E-04	1.45E-02
376900.00	3762500.00	Residential	7.22E-04	6.90E-06	1.48E-03	8.30E-04	3.77E-04	1.04E-05	6.80E-05	1.23E-04	8.70E-03
376900.00	3764500.00	Residential	4.29E-04	4.31E-06	9.20E-04	5.91E-04	2.44E-04	6.28E-06	4.64E-05	8.01E-05	5.37E-03
377900.00	3753500.00	Residential	6.08E-04	6.26E-06	1.32E-03	8.92E-04	3.54E-04	8.89E-06	6.88E-05	1.11E-04	7.98E-03
377900.00	3754500.00	Residential	6.37E-04	6.20E-06	1.35E-03	9.13E-04	3.58E-04	9.14E-06	7.03E-05	1.18E-04	8.11E-03
377900.00	3755500.00	Residential	7.28E-04	6.23E-06	1.31E-03	7.87E-04	3.40E-04	9.97E-06	6.35E-05	1.12E-04	8.12E-03
377900.00	3756500.00	Residential	1.37E-03	1.29E-05	2.77E-03	1.86E-03	7.36E-04	1.94E-05	1.44E-04	2.43E-04	1.68E-02
377900.00	3757500.00	Residential	1.34E-03	1.41E-05	2.95E-03	1.73E-03	7.69E-04	2.15E-05	1.40E-04	2.51E-04	1.74E-02
377900.00	3759500.00	Residential	1.51E-03	1.40E-05	2.92E-03	1.74E-03	7.69E-04	2.15E-05	1.40E-04	2.51E-04	1.74E-02
377900.00	3760500.00	Residential	8.91E-04	8.07E-06	1.72E-03	1.07E-03	4.49E-04	1.25E-05	8.49E-05	1.47E-04	1.04E-02
377900.00	3761500.00	Residential	2.34E-03	2.18E-05	4.26E-03	1.73E-03	1.09E-03	3.41E-05	1.64E-04	3.66E-04	2.26E-02
377900.00	3762500.00	Residential	1.85E-03	1.63E-05	3.51E-03	1.97E-03	8.84E-04	2.57E-05	1.62E-04	2.89E-04	2.15E-02
377900.00	3763500.00	Residential	4.94E-04	4.34E-06	9.28E-04	5.29E-04	2.36E-04	6.86E-06	4.32E-05	7.70E-05	5.64E-03
377900.00	3764500.00	Residential	4.65E-04	4.40E-06	9.49E-04	6.50E-04	2.53E-04	6.59E-06	5.00E-05	8.36E-05	5.78E-03
378528.59	3764156.44	Residential	4.74E-04	4.20E-06	8.92E-04	5.48E-04	2.32E-04	6.57E-06	4.37E-05	7.61E-05	5.47E-03
378900.00	3753500.00	Residential	4.99E-04	4.89E-06	1.04E-03	6.37E-04	2.73E-04	7.24E-06	5.07E-05	8.93E-05	6.03E-03
378900.00	3755500.00	Residential	8.41E-04	7.48E-06	1.62E-03	1.14E-03	4.31E-04	1.16E-05	8.70E-05	1.43E-04	1.02E-02
378900.00	3756500.00	Residential	1.24E-03	1.20E-05	2.56E-03	1.71E-03	6.88E-04	1.78E-05	1.33E-04	2.26E-04	1.53E-02
378900.00	3757500.00	Residential	1.02E-03	1.07E-05	2.23E-03	1.32E-03	5.94E-04	1.53E-05	1.07E-04	1.93E-04	1.24E-02
378900.00	3758500.00	Residential	3.69E-03	3.78E-05	7.66E-03	3.92E-03	2.01E-03	5.54E-05	3.35E-04	6.47E-04	4.22E-02
378900.00	3759500.00	Residential	1.01E-03	9.69E-06	1.98E-03	1.09E-03	5.22E-04	1.46E-05	9.09E-05	1.69E-04	1.13E-02
378900.00	3760500.00	Residential	7.78E-04	6.98E-06	1.50E-03	9.71E-04	3.93E-04	1.08E-05	7.61E-05	1.29E-04	9.27E-03

Table 2-1.2
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2019 Unmitigated Construction, Construction TAC Concentrations - Particulates Only

X	Y	Receptor Type	ammonium (µg/m³)	arsenic (µg/m³)	chlorine (µg/m³)	copper (µg/m³)	manganese (µg/m³)	mercury (µg/m³)	nickel (µg/m³)	vanadium (µg/m³)	sulfates (µg/m³)
378900.00	3762500.00	Residential	2.26E-03	2.22E-05	4.51E-03	2.20E-03	1.17E-03	3.33E-05	1.92E-04	3.75E-04	2.51E-02
378900.00	3763500.00	Residential	1.24E-03	9.49E-06	2.09E-03	1.20E-03	5.11E-04	1.62E-05	9.79E-05	1.69E-04	1.39E-02
378900.00	3764500.00	Residential	4.76E-04	4.25E-06	9.02E-04	5.60E-04	2.36E-04	6.62E-06	4.45E-05	7.74E-05	5.51E-03
378902.85	3757271.45	Residential	1.15E-03	1.10E-05	2.31E-03	1.41E-03	6.09E-04	1.65E-05	1.13E-04	1.99E-04	1.35E-02
379900.00	3754500.00	Residential	9.59E-04	9.17E-06	1.99E-03	1.22E-03	5.13E-04	1.37E-05	9.65E-05	1.68E-04	1.15E-02
379900.00	3755500.00	Residential	8.08E-04	7.73E-06	1.67E-03	1.08E-03	4.46E-04	1.17E-05	8.45E-05	1.47E-04	9.84E-03
379900.00	3756500.00	Residential	1.03E-03	1.02E-05	2.16E-03	1.40E-03	5.77E-04	1.50E-05	1.10E-04	1.89E-04	1.27E-02
379900.00	3757500.00	Residential	8.11E-04	8.38E-06	1.74E-03	1.05E-03	4.66E-04	1.21E-05	8.44E-05	1.52E-04	9.82E-03
379900.00	3758500.00	Residential	7.38E-04	7.44E-06	1.56E-03	9.37E-04	4.14E-04	1.09E-05	7.53E-05	1.35E-04	8.76E-03
379900.00	3760500.00	Residential	7.12E-04	6.44E-06	1.39E-03	8.66E-04	3.60E-04	9.95E-06	6.86E-05	1.18E-04	8.47E-03
379900.00	3761500.00	Residential	6.45E-04	5.87E-06	1.25E-03	7.94E-04	3.29E-04	9.04E-06	6.27E-05	1.08E-04	7.63E-03
379900.00	3762500.00	Residential	1.16E-03	1.12E-05	2.35E-03	1.54E-03	6.45E-04	1.74E-05	1.25E-04	2.16E-04	1.72E-02
379900.00	3763500.00	Residential	2.12E-03	2.14E-05	4.42E-03	2.35E-03	1.15E-03	3.15E-05	1.97E-04	3.71E-04	2.48E-02
379900.00	3764500.00	Residential	7.71E-04	4.64E-06	1.07E-03	6.50E-04	2.47E-04	9.15E-06	5.19E-05	8.33E-05	8.16E-03
379932.39	3757229.81	Residential	6.29E-04	5.83E-06	1.23E-03	8.05E-04	3.22E-04	8.76E-06	6.28E-05	1.06E-04	7.63E-03
380900.00	3754500.00	Residential	7.48E-04	6.92E-06	1.49E-03	1.03E-03	3.98E-04	1.05E-05	7.90E-05	1.32E-04	9.18E-03
380900.00	3755500.00	Residential	6.70E-04	5.98E-06	1.29E-03	8.59E-04	3.39E-04	9.26E-06	6.67E-05	1.12E-04	8.03E-03
380900.00	3756500.00	Residential	7.73E-04	7.30E-06	1.56E-03	9.91E-04	4.11E-04	1.05E-05	7.95E-05	1.35E-04	9.30E-03
380900.00	3757500.00	Residential	6.41E-04	6.29E-06	1.31E-03	7.51E-04	3.44E-04	9.36E-06	6.14E-05	1.12E-04	7.48E-03
380900.00	3758500.00	Residential	2.54E-03	2.75E-05	5.46E-03	2.49E-03	1.43E-03	3.95E-05	2.23E-04	4.57E-04	2.84E-02
380900.00	3759500.00	Residential	7.05E-04	6.59E-06	1.43E-03	7.88E-04	3.59E-04	1.01E-05	6.49E-05	1.15E-04	8.45E-03
380900.00	3760500.00	Residential	7.73E-04	7.59E-06	1.56E-03	8.72E-04	4.11E-04	1.13E-05	7.21E-05	1.33E-04	8.92E-03
380900.00	3761500.00	Residential	5.94E-04	5.41E-06	1.16E-03	7.66E-04	3.06E-04	8.29E-06	5.97E-05	1.01E-04	7.14E-03
380900.00	3762500.00	Residential	6.10E-04	5.83E-06	1.25E-03	7.94E-04	3.21E-04	8.74E-06	6.13E-05	1.05E-04	7.72E-03
380900.00	3763500.00	Residential	1.48E-03	1.41E-05	2.69E-03	9.37E-04	6.88E-04	2.19E-05	9.55E-05	2.17E-04	1.43E-02
380900.00	3764500.00	Residential	5.76E-04	5.33E-06	1.14E-03	7.61E-04	3.03E-04	8.10E-06	5.91E-05	1.00E-04	6.97E-03
381900.00	3755500.00	Residential	6.14E-04	4.60E-06	9.88E-04	6.44E-04	2.58E-04	7.12E-06	5.05E-05	8.55E-05	6.11E-03
381900.00	3756500.00	Residential	5.60E-04	5.04E-06	1.08E-03	6.81E-04	2.81E-04	7.80E-06	5.38E-05	9.26E-05	6.62E-03
381900.00	3757500.00	Residential	5.36E-04	5.18E-06	1.08E-03	6.08E-04	2.82E-04	7.78E-06	5.01E-05	9.15E-05	6.24E-03
381900.00	3758500.00	Residential	9.78E-04	9.27E-06	1.41E-03	7.86E-04	3.27E-04	1.15E-05	6.45E-05	1.04E-04	8.02E-03
381900.00	3760500.00	Residential	6.20E-04	5.96E-06	1.22E-03	6.66E-04	3.20E-04	9.00E-06	5.55E-05	1.04E-04	6.95E-03
381900.00	3761500.00	Residential	6.06E-04	5.70E-06	1.22E-03	7.76E-04	3.21E-04	8.61E-06	6.11E-05	1.05E-04	7.28E-03
381900.00	3762500.00	Residential	5.98E-04	5.68E-06	1.21E-03	7.81E-04	3.21E-04	8.53E-06	6.13E-05	1.05E-04	7.23E-03
381900.00	3763500.00	Residential	5.64E-04	5.40E-06	1.16E-03	7.51E-04	3.06E-04	8.08E-06	5.87E-05	1.01E-04	6.91E-03
381900.00	3764500.00	Residential	1.66E-03	1.65E-05	3.26E-03	1.43E-03	8.44E-04	2.48E-05	1.30E-04	2.69E-04	1.77E-02
382900.00	3753500.00	Residential	4.86E-04	4.27E-06	9.34E-04	6.13E-04	2.42E-04	6.68E-06	4.77E-05	8.00E-05	5.86E-03
382900.00	3754500.00	Residential	3.19E-04	3.22E-06	6.77E-04	4.31E-04	1.81E-04	4.67E-06	3.34E-05	5.70E-05	3.94E-03
382900.00	3755500.00	Residential	3.06E-04	3.22E-06	6.89E-04	4.48E-04	1.84E-04	4.57E-06	3.50E-05	6.03E-05	3.94E-03
382900.00	3756500.00	Residential	3.65E-04	3.79E-06	8.10E-04	5.21E-04	2.16E-04	5.43E-06	4.08E-05	7.07E-05	4.63E-03
382900.00	3757500.00	Residential	4.30E-04	4.18E-06	8.78E-04	4.90E-04	2.28E-04	6.22E-06	4.04E-05	7.39E-05	5.03E-03
382900.00	3758500.00	Residential	1.66E-03	1.68E-05	3.32E-03	1.46E-03	8.62E-04	2.50E-05	1.33E-04	2.75E-04	1.77E-02
382900.00	3759500.00	Residential	1.24E-03	9.47E-06	2.03E-03	1.11E-03	5.00E-04	1.63E-05	9.23E-05	1.64E-04	1.33E-02
382900.00	3760500.00	Residential	4.85E-04	4.04E-06	8.52E-04	5.32E-04	2.41E-04	7.28E-06	4.56E-05	8.15E-05	5.60E-03
382900.00	3761500.00	Residential	5.88E-04	5.60E-06	1.20E-03	7.80E-04	3.17E-04	8.39E-06	6.10E-05	1.04E-04	7.19E-03
382900.00	3762500.00	Residential	5.01E-04	4.33E-06	9.41E-04	6.35E-04	2.46E-04	6.82E-06	4.91E-05	8.17E-05	5.97E-03
382900.00	3763500.00	Residential	5.54E-04	5.24E-06	1.13E-03	7.43E-04	2.98E-04	7.87E-06	5.85E-05	9.82E-05	6.80E-03
382900.00	3764500.00	Residential	7.25E-04	6.63E-06	1.35E-03	7.89E-04	3.59E-04	1.03E-05	6.45E-05	1.17E-04	8.03E-03
383900.00	3753500.00	Residential	3.51E-04	3.62E-06	7.74E-04	5.00E-04	2.06E-04	5.20E-06	3.91E-05	6.76E-05	4.45E-03
383900.00	3754500.00	Residential	2.60E-04	2.62E-06	5.56E-04	3.44E-04	1.47E-04	3.82E-06	2.72E-05	4.60E-05	3.22E-03
383900.00	3755500.00	Residential	2.85E-04	2.91E-06	6.25E-04	4.08E-04	1.66E-04	4.20E-06	3.18E-05	5.46E-05	3.63E-03
383900.00	3756500.00	Residential	3.29E-04	3.40E-06	7.26E-04	4.66E-04	1.94E-04	4.88E-06	3.66E-05	6.34E-05	4.16E-03
383900.00	3757500.00	Residential	3.57E-04	3.62E-06	7.47E-04	4.30E-04	1.99E-04	5.30E-06	3.55E-05	6.48E-05	4.41E-03
383900.00	3758500.00	Residential	5.48E-04	5.16E-06	1.11E-03	7.39E-04	2.94E-04	7.77E-06	5.73E-05	9.71E-05	6.71E-03
383900.00	3759500.00	Residential	5.35E-04	5.18E-06	1.10E-03	7.21E-04	2.94E-04	7.69E-06	5.63E-05	9.66E-05	6.55E-03
383900.00	3760500.00	Residential	5.21E-04	4.66E-06	1.00E-03	7.24E-04	2.96E-04	7.64E-06	5.44E-05	9.26E-05	6.46E-03
384900.00	3753500.00	Residential	3.09E-04	3.08E-06	6.58E-04	4.08E-04	1.73E-04	4.52E-06	3.23E-05	5.67E-05	3.80E-03
384900.00	3754500.00	Residential	2.28E-04	2.26E-06	4.84E-04	3.26E-04	1.30E-04	3.32E-06	2.52E-05	4.27E-05	2.87E-03
384900.00	3755500.00	Residential	2.68E-04	2.68E-06	5.78E-04	3.77E-04	1.54E-04	3.91E-06	2.98E-05	5.05E-05	3.38E-03
384900.00	3756500.00	Residential	2.97E-04	3.06E-06	6.54E-04	4.20E-04	1.74E-04	4.40E-06	3.29E-05	5.71E-05	3.76E-03
384900.00	3757500.00	Residential	3.12E-04	3.20E-06	6.65E-04	3.97E-04	1.77E-04	4.64E-06	3.20E-05	5.77E-05	3.75E-03
384900.00	3758500.00	Residential	1.51E-03	1.50E-05	3.06E-03	1.60E-03	7.99E-04	2.23E-05	1.36E-04	2.58E-04	1.72E-02
384900.00	3759500.00	Residential	1.51E-03	1.50E-05	3.06E-03	1.60E-03	7.99E-04	2.23E-05	1.36E-04	2.58E-04	1.72E-02
384900.00	3760500.00	Residential	4.52E-04	4.59E-06	9.67E-04	5.72E-04	2.55E-04	6.70E-06	4.62E-05	8.29E-05	5.49E-03
384900.00	3761500.00	Residential	4.95E-04	4.92E-06	1.02E-03	5.96E-04	2.70E-04	7.27E-06	4.84E-05	8.79E-05	5.91E-03
384900.00	3762500.00	Residential	4.77E-04	4.48E-06	9.51E-04	5.81E-04	2.49E-04	6.79E-06	4.71E-05	8.15E-05	5.66E-03
384900.00	3763500.00	Residential	3.99E-04	3.44E-06	7.39E-04	4.52E-04	1.90E-04	5.47E-06	3.61E-05	6.25E-05	4.62E-03
384900.00	3764500.00	Residential	4.94E-04	4.68E-06	1.01E-03	6.78E-04	2.68E-04	7.01E-06	5.24E-05	8.84E-05	6.09E-03
371641.30	3756983.00	Commercial	2.42E-03	3.54E-05	6.61E-03	1.69E-03	1.73E-03	4.53E-05	2.42E-04	5.30E-04	2.44E-01
371741.00	3756983.00	Commercial	1.96E-02	3.03E-04	5.69E-02	1.48E-02	1.49E-02	3.80E-04	1.73E-03	4.56E-03	2.18E-01
371841.00	3756983.00	Commercial	1.62E-02	2.54E-04	4.82E-02	1.28E-02	1.25E-02	3.15E-04	1.47E-03	3.83E-03	1.86E-01
371941.00	3756983.00	Commercial	1.36E-02	2.13E-04	4.22E-02	1.39E-02	1.09E-02	2.62E-04	1.42E-03	3.36E-03	1.76E-01
371941.00	3757683.00	Commercial	2.97E-02	2.51E-04	8.79E-02	4.93E-02	1.57E-02	3.92E-04	3.61E-03	5.28E-03	4.52E-01
372041.00	3756983.00	Commercial	1.27E-02	1.82E-04	3.64E-02	1.52E-02	9.58E-03	2.31E

Table 2-1.2
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2019 Unmitigated Construction,
Construction TAC Concentrations - Particulates Only

X	Y	Receptor Type	ammonium ($\mu g/m^3$)	arsenic ($\mu g/m^3$)	chlorine ($\mu g/m^3$)	copper ($\mu g/m^3$)	manganese ($\mu g/m^3$)	mercury ($\mu g/m^3$)	nickel ($\mu g/m^3$)	vanadium ($\mu g/m^3$)	sulfates ($\mu g/m^3$)
371841.00	3757083.00	Commercial	1.34E-02	1.43E-04	3.09E-02	1.39E-02	7.54E-03	2.06E-04	1.23E-03	2.41E-03	1.68E-01
371841.00	3757183.00	Commercial	1.93E-02	1.47E-04	3.55E-02	2.65E-02	8.78E-03	2.46E-04	1.97E-03	2.97E-03	2.54E-01
371841.00	3757283.00	Commercial	3.74E-02	2.43E-04	5.26E-02	2.74E-02	1.24E-02	4.61E-04	2.33E-03	4.10E-03	3.76E-01
371900.00	3753500.00	Commercial	1.43E-03	1.21E-05	2.79E-03	2.26E-03	7.41E-04	1.90E-05	1.65E-04	2.50E-04	1.89E-02
371900.00	3754500.00	Commercial	1.87E-03	1.76E-05	3.97E-03	2.89E-03	1.04E-03	2.61E-05	2.17E-04	3.47E-04	2.51E-02
371900.00	3760500.00	Commercial	1.30E-03	1.15E-05	2.58E-03	1.92E-03	6.83E-04	1.77E-05	1.44E-04	2.28E-04	1.66E-02
371900.00	3761500.00	Commercial	8.75E-04	7.78E-06	1.69E-03	9.89E-04	4.27E-04	1.22E-05	7.98E-05	1.40E-04	1.03E-02
371900.00	3764500.00	Commercial	9.06E-04	7.31E-06	1.54E-03	7.58E-04	3.78E-04	1.22E-05	6.55E-05	1.23E-04	9.51E-03
371941.00	3757083.00	Commercial	1.46E-02	1.58E-04	3.41E-02	1.90E-02	8.76E-03	2.23E-04	1.56E-03	2.84E-03	1.92E-01
371941.00	3757183.00	Commercial	2.12E-02	1.25E-04	2.78E-02	1.91E-02	6.80E-03	2.49E-04	1.48E-03	2.31E-03	2.19E-01
371941.00	3757283.00	Commercial	3.56E-02	2.54E-04	5.08E-02	2.94E-02	1.32E-02	4.55E-04	2.44E-03	4.36E-03	3.47E-01
371941.00	3757383.00	Commercial	4.43E-02	3.12E-04	6.12E-02	3.66E-02	1.62E-02	5.61E-04	3.01E-03	5.36E-03	4.23E-01
372041.00	3757083.00	Commercial	1.59E-02	1.58E-04	3.16E-02	1.56E-02	8.28E-03	2.36E-04	1.36E-03	2.66E-03	1.77E-01
372041.00	3757183.00	Commercial	1.81E-02	1.28E-04	2.69E-02	1.83E-02	7.04E-03	2.28E-04	1.43E-03	2.36E-03	1.93E-01
372041.00	3757283.00	Commercial	2.16E-02	1.61E-04	3.29E-02	2.11E-02	8.70E-03	2.78E-04	1.68E-03	2.89E-03	2.24E-01
372041.00	3757383.00	Commercial	2.80E-02	1.51E-04	3.49E-02	2.51E-02	8.29E-03	3.17E-04	1.91E-03	2.85E-03	2.86E-01
372041.00	3757783.00	Commercial	3.07E-02	2.18E-04	6.15E-02	4.53E-02	1.36E-02	3.76E-04	3.30E-03	4.64E-03	4.42E-01
372041.00	3757883.00	Commercial	1.73E-02	2.01E-04	4.27E-02	2.15E-02	1.09E-02	2.76E-04	1.82E-03	3.50E-03	2.26E-01
372041.00	3757983.00	Commercial	1.26E-02	1.38E-04	2.92E-02	1.39E-02	7.36E-03	1.96E-04	1.21E-03	2.36E-03	1.57E-01
372141.00	3757083.00	Commercial	1.20E-02	1.47E-04	2.94E-02	1.38E-02	7.80E-03	1.99E-04	1.22E-03	2.48E-03	1.47E-01
372141.00	3757183.00	Commercial	1.39E-02	1.19E-04	2.42E-02	1.53E-02	6.50E-03	1.90E-04	1.22E-03	2.14E-03	1.53E-01
372141.00	3757283.00	Commercial	1.16E-02	1.22E-04	2.47E-02	1.20E-02	6.44E-03	1.77E-04	1.04E-03	2.06E-03	1.34E-01
372141.00	3757783.00	Commercial	6.13E-02	4.39E-04	1.17E-01	8.67E-02	2.69E-02	7.56E-04	6.36E-03	9.15E-03	8.38E-01
372141.00	3757883.00	Commercial	2.07E-02	1.76E-04	3.90E-02	1.90E-02	9.24E-03	2.85E-04	1.63E-03	3.00E-03	2.42E-01
372141.00	3757983.00	Commercial	1.43E-02	1.61E-04	3.42E-02	1.68E-02	8.69E-03	2.25E-04	1.44E-03	2.78E-03	1.82E-01
372241.00	3757083.00	Commercial	1.05E-02	1.38E-04	2.71E-02	1.23E-02	7.28E-03	1.81E-04	1.10E-03	2.30E-03	1.29E-01
372241.00	3757183.00	Commercial	9.99E-03	1.36E-04	2.64E-02	9.56E-03	6.92E-03	1.77E-04	9.43E-04	2.16E-03	1.18E-01
372241.00	3757283.00	Commercial	1.01E-02	1.39E-04	2.74E-02	9.88E-03	7.09E-03	1.80E-04	9.73E-04	2.21E-03	1.23E-01
372241.00	3757483.00	Commercial	3.14E-02	2.75E-04	5.67E-02	2.89E-02	1.44E-02	4.38E-04	2.48E-03	4.67E-03	3.39E-01
372241.00	3757583.00	Commercial	3.00E-02	2.23E-04	4.99E-02	2.65E-02	1.18E-02	3.89E-04	2.21E-03	3.88E-03	3.33E-01
372241.00	3757683.00	Commercial	4.08E-02	3.12E-04	8.50E-02	6.56E-02	1.97E-02	5.13E-04	4.74E-03	6.71E-03	6.00E-01
372241.00	3757783.00	Commercial	4.54E-02	3.48E-04	8.70E-02	6.40E-02	2.09E-02	5.78E-04	4.74E-03	7.07E-03	6.01E-01
372341.00	3757083.00	Commercial	9.29E-03	1.26E-04	2.44E-02	8.18E-03	6.38E-03	1.65E-04	8.38E-04	1.98E-03	1.06E-01
372341.00	3757183.00	Commercial	1.07E-02	1.39E-04	2.72E-02	8.98E-03	6.97E-03	1.85E-04	9.22E-04	2.17E-03	1.21E-01
372341.00	3757283.00	Commercial	1.35E-02	1.56E-04	3.17E-02	1.38E-02	8.14E-03	2.17E-04	1.25E-03	2.58E-03	1.59E-01
372341.00	3757383.00	Commercial	1.60E-02	1.46E-04	3.03E-02	1.42E-02	7.59E-03	2.28E-04	1.25E-03	2.44E-03	1.74E-01
372341.00	3757483.00	Commercial	2.48E-02	2.20E-04	4.36E-02	2.19E-02	1.14E-02	3.49E-04	1.90E-03	3.69E-03	2.58E-01
372341.00	3757583.00	Commercial	2.65E-02	2.12E-04	4.61E-02	2.50E-02	1.13E-02	3.53E-04	2.08E-03	3.69E-03	2.97E-01
372341.00	3757683.00	Commercial	2.92E-02	2.32E-04	6.02E-02	4.52E-02	1.43E-02	3.76E-04	3.31E-03	4.84E-03	4.16E-01
372341.00	3757783.00	Commercial	2.76E-02	2.05E-04	4.79E-02	2.82E-02	1.12E-02	3.54E-04	2.25E-03	3.73E-03	3.24E-01
372441.00	3757083.00	Commercial	8.51E-03	1.39E-04	2.69E-02	7.72E-03	6.97E-03	1.70E-04	8.48E-04	2.14E-03	1.05E-01
372441.00	3757183.00	Commercial	1.30E-02	1.69E-04	3.25E-02	1.03E-02	8.42E-03	2.26E-04	1.09E-03	2.61E-03	1.43E-01
372441.00	3757283.00	Commercial	1.70E-02	2.24E-04	4.23E-02	1.46E-02	1.12E-02	2.97E-04	1.48E-03	3.50E-03	1.85E-01
372441.00	3757383.00	Commercial	2.11E-02	2.44E-04	4.64E-02	1.98E-02	1.26E-02	3.41E-04	1.83E-03	3.97E-03	2.25E-01
372441.00	3757483.00	Commercial	2.12E-02	2.63E-04	5.12E-02	1.95E-02	1.34E-02	3.57E-04	1.89E-03	4.21E-03	2.38E-01
372441.00	3757583.00	Commercial	2.32E-02	1.96E-04	4.22E-02	2.28E-02	1.05E-02	3.17E-04	1.90E-03	3.42E-03	2.63E-01
372441.00	3757683.00	Commercial	2.38E-02	1.95E-04	4.83E-02	3.44E-02	1.17E-02	3.13E-04	2.57E-03	3.92E-03	3.25E-01
372441.00	3757783.00	Commercial	1.73E-02	1.72E-04	4.18E-02	2.52E-02	9.98E-03	2.51E-04	1.98E-03	3.28E-03	2.50E-01
372441.00	3757883.00	Commercial	2.35E-02	1.90E-04	4.37E-02	2.84E-02	1.08E-02	3.11E-04	2.20E-03	3.58E-03	2.86E-01
372441.00	3757983.00	Commercial	2.28E-02	1.92E-04	4.48E-02	3.05E-02	1.11E-02	3.05E-04	2.32E-03	3.71E-03	2.92E-01
372541.00	3757083.00	Commercial	8.09E-03	1.17E-04	2.31E-02	8.16E-03	6.01E-03	1.49E-04	8.09E-04	1.87E-03	9.81E-02
372541.00	3757183.00	Commercial	1.17E-02	2.04E-04	3.83E-02	1.04E-02	1.02E-02	2.43E-04	1.19E-03	3.11E-03	1.39E-01
372541.00	3757283.00	Commercial	2.05E-02	2.49E-04	4.59E-02	1.43E-02	1.22E-02	3.44E-04	1.54E-03	3.79E-03	2.03E-01
372541.00	3757383.00	Commercial	3.81E-02	3.94E-04	7.32E-02	3.87E-02	2.07E-02	5.76E-04	3.32E-03	6.65E-03	3.84E-01
372541.00	3757483.00	Commercial	3.30E-02	3.67E-04	7.00E-02	3.23E-02	1.90E-02	5.20E-04	2.90E-03	6.05E-03	3.47E-01
372541.00	3757583.00	Commercial	2.05E-02	2.02E-04	4.22E-02	2.05E-02	1.07E-02	3.03E-04	1.78E-03	3.43E-03	2.38E-01
372541.00	3757683.00	Commercial	2.07E-02	1.99E-04	4.59E-02	2.82E-02	1.13E-02	2.96E-04	2.21E-03	3.73E-03	2.77E-01
372541.00	3757783.00	Commercial	1.62E-02	2.28E-04	5.04E-02	2.43E-02	1.26E-02	2.87E-04	2.07E-03	4.00E-03	2.45E-01
372541.00	3757883.00	Commercial	1.67E-02	1.27E-04	2.76E-02	1.41E-02	6.64E-03	2.19E-04	1.20E-03	2.17E-03	1.79E-01
372541.00	3757983.00	Commercial	1.98E-02	1.69E-04	3.86E-02	2.55E-02	9.69E-03	2.68E-04	1.97E-03	3.22E-03	2.47E-01
372641.00	3757183.00	Commercial	4.53E-02	5.02E-04	9.32E-02	4.73E-02	2.64E-02	7.10E-04	4.12E-03	8.42E-03	4.63E-01
372641.00	3757483.00	Commercial	4.92E-02	5.51E-04	1.04E-01	5.37E-02	2.92E-02	7.74E-04	4.62E-03	9.33E-03	5.18E-01
372641.00	3757583.00	Commercial	1.92E-02	3.39E-04	6.60E-02	1.92E-02	1.71E-02	4.02E-04	2.09E-03	5.25E-03	2.50E-01
372641.00	3757683.00	Commercial	1.96E-02	3.70E-04	7.42E-02	2.51E-02	1.92E-02	4.24E-04	2.52E-03	5.93E-03	2.87E-01
372641.00	3757783.00	Commercial	1.46E-02	1.55E-04	3.63E-02	2.22E-02	8.99E-03	2.20E-04	1.74E-03	2.94E-03	2.10E-01
372641.00	3757883.00	Commercial	1.16E-02	8.69E-05	1.93E-02	7.80E-03	4.33E-03	1.52E-04	2.22E-04	1.40E-03	1.23E-01
372641.00	3757983.00	Commercial	1.56E-02	1.28E-04	2.81E-02	1.60E-02	6.92E-03	2.10E-04	1.30E-03	2.27E-03	1.78E-01
372741.00	3757783.00	Commercial	1.68E-02	2.22E-04	4.87E-02	2.14E-02	1.19E-02	2.89E-04	1.88E-03	3.79E-03	2.27E-01
372741.00	3757783.00	Commercial	1.34E-02	1.11E-04	2.74E-02	2.02E-02	6.71E-03	1.76E-04	1.50E-03	2.26E-03	1.85E-01
372741.00	3757883.00	Commercial	8.40E-03	7.05E-05	1.71E-02	9.18E-03	3.88E-03	1.14E-04	7.49E-04	1.27E-03	1.09E-01
372741.00	3757983.00	Commercial	1.17E-02	9.11E-05	1.92E-02	8.60E-03	4.60E-03	1.56E-04	7.71E-04	1.49E-03	1.20E-01
372841.00	3757783.00	Commercial	1.27E-02	1.12E-04	2.67E-02	1.87E-02	6.65E-03	1.73E-04	1.41E-03	2.22E-03	1.72E-01
372841.00	3757883.00	Commercial	8.54E-03	7.46E-05	1.79E-02	1.02E-02	4.18E-03	1.17E-04	8.16E-04	1.37E-03	1.12E-01
372841.00	3757983.00	Commercial	8.61E-03	6.58E-05	1.35E-02	5.60E-03	3.24E-03	1.14E-04	5.23E-04	1.05E-03	8.54E-02
372843.75	3756668.92	Commercial	4.26E-03	4.88E-05	1.00E-02	4.73E-03	2.59E-03	6.80E-05	4.15E-04	8.27E-04	5.20E-02
372857.79	3756854.91	Commercial	4.00E-03	6.43E-05	1.29E-02	4.19E-03	3.29E-03	7.84E-05	4.29E-04	1.02E-03	5.26E-02
372900.00	3758500.00	Commercial	9.65E-03	9.25E-05	2.00E-02	1.07E-02	5.01E-03	1.40E-04	8.90E-04	1.63E-03	1.17E-01
372900.00	3763500.00	Commercial	7.05E-04	5.61E-06	1.26E-03	8.08E-04	3.14E-04	9.28E-06	6.32E-05	1.04E-04	8.43E-03
372900.00	3764500.00	Commercial	7.29E-04	6.93E-06	1.46E-03	7.21E-04	3.66E-04	1.06E-05	6.20E-05	1.18E-04	8.31E-03

Table 2-1.2
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2019 Unmitigated Construction,
Construction TAC Concentrations - Particulates Only

X	Y	Receptor Type	ammonium ($\mu g/m^3$)	arsenic ($\mu g/m^3$)	chlorine ($\mu g/m^3$)	copper ($\mu g/m^3$)	manganese ($\mu g/m^3$)	mercury ($\mu g/m^3$)	nickel ($\mu g/m^3$)	vanadium ($\mu g/m^3$)	sulfates ($\mu g/m^3$)
372941.00	3757783.00	Commercial	1.19E-02	1.16E-04	2.67E-02	1.73E-02	6.71E-03	1.71E-04	1.34E-03	2.21E-03	1.62E-01
372941.00	3757883.00	Commercial	8.56E-03	7.70E-05	1.82E-02	1.08E-02	4.35E-03	1.19E-04	8.56E-04	1.43E-03	1.13E-01
372941.00	3757983.00	Commercial	6.49E-03	5.48E-05	1.21E-02	5.59E-03	2.84E-03	8.93E-05	4.90E-04	9.20E-04	7.40E-02
373035.50	3755453.68	Commercial	2.68E-03	2.51E-05	5.32E-03	3.02E-03	1.37E-03	3.83E-05	2.47E-04	4.46E-04	3.16E-02
373035.50	3755652.82	Commercial	2.95E-03	2.52E-05	5.49E-03	3.57E-03	1.42E-03	4.01E-05	2.79E-04	4.70E-04	3.54E-02
373041.00	3757783.00	Commercial	1.12E-02	9.88E-05	2.31E-02	1.60E-02	5.80E-03	1.53E-04	1.21E-03	1.93E-03	1.48E-01
373041.00	3757883.00	Commercial	8.45E-03	7.30E-05	1.74E-02	1.11E-02	4.20E-03	1.15E-04	8.58E-04	1.39E-03	1.11E-01
373041.00	3757983.00	Commercial	5.54E-03	5.49E-05	1.23E-02	5.40E-03	2.89E-03	8.21E-05	4.79E-04	9.24E-04	6.95E-02
373141.00	3757783.00	Commercial	1.31E-02	1.25E-04	2.69E-02	1.50E-02	6.85E-03	1.89E-04	1.23E-03	2.23E-03	1.57E-01
373141.00	3757883.00	Commercial	8.26E-03	6.42E-05	1.56E-02	1.11E-02	3.79E-03	1.06E-04	8.32E-04	1.27E-03	1.07E-01
373141.00	3757983.00	Commercial	5.55E-03	4.53E-05	1.07E-02	5.18E-03	2.41E-03	7.49E-05	4.40E-04	7.84E-04	6.73E-02
373241.00	3757783.00	Commercial	1.39E-02	2.23E-04	4.35E-02	1.46E-02	1.14E-02	2.72E-04	1.48E-03	3.52E-03	1.77E-01
373241.00	3757883.00	Commercial	9.53E-03	8.73E-05	1.93E-02	1.11E-02	4.82E-03	1.34E-04	9.01E-04	1.58E-03	1.17E-01
373241.00	3757983.00	Commercial	6.52E-03	4.66E-05	1.08E-02	5.81E-03	2.48E-03	8.29E-05	4.80E-04	8.18E-04	7.40E-02
373247.31	3756833.85	Commercial	4.47E-03	5.86E-05	1.11E-02	3.62E-03	2.92E-03	7.81E-05	3.78E-04	9.07E-04	4.86E-02
373250.82	3756654.89	Commercial	3.28E-03	2.69E-05	5.82E-03	3.41E-03	1.46E-03	4.41E-05	2.76E-04	4.81E-04	3.69E-02
373258.92	3755458.54	Commercial	2.59E-03	2.11E-05	4.66E-03	3.10E-03	1.19E-03	3.44E-05	2.41E-04	3.96E-04	3.09E-02
373278.35	3755547.97	Commercial	2.59E-03	2.06E-05	4.60E-03	2.89E-03	1.15E-03	3.41E-05	2.28E-04	3.80E-04	3.04E-02
373341.00	3757783.00	Commercial	1.14E-02	1.79E-04	3.57E-02	1.35E-02	9.33E-03	2.19E-04	1.29E-03	2.91E-03	1.51E-01
373341.00	3757883.00	Commercial	1.02E-02	1.47E-04	2.96E-02	1.13E-02	7.64E-03	1.86E-04	1.08E-03	2.39E-03	1.31E-01
373341.00	3757983.00	Commercial	7.65E-03	6.44E-05	1.39E-02	6.41E-03	3.32E-03	1.05E-04	5.64E-04	1.07E-03	8.45E-02
373441.00	3757083.00	Commercial	4.00E-03	6.38E-05	1.20E-02	3.58E-03	3.19E-03	7.85E-05	3.89E-04	9.81E-04	4.62E-02
373441.00	3757183.00	Commercial	4.75E-03	5.65E-05	1.08E-02	4.09E-03	2.86E-03	7.83E-05	3.98E-04	8.97E-04	5.08E-02
373441.00	3757283.00	Commercial	6.30E-03	6.00E-05	1.15E-02	4.53E-03	2.98E-03	9.27E-05	4.36E-04	9.46E-04	6.18E-02
373441.00	3757383.00	Commercial	1.02E-02	7.09E-05	1.33E-02	5.61E-03	3.39E-03	1.30E-04	5.33E-04	1.10E-03	8.79E-02
373441.00	3757483.00	Commercial	1.67E-02	1.72E-04	3.14E-02	1.07E-02	8.38E-03	2.57E-04	1.11E-03	2.63E-03	1.57E-01
373900.00	3758500.00	Commercial	3.98E-03	3.57E-05	7.70E-03	4.17E-03	1.92E-03	5.58E-05	3.46E-04	6.27E-04	4.64E-02
373900.00	3762500.00	Commercial	7.75E-04	8.28E-06	1.82E-03	1.25E-03	4.85E-04	1.16E-05	9.57E-05	1.60E-04	1.06E-02
373900.00	3763500.00	Commercial	9.63E-04	7.65E-06	1.69E-03	1.13E-03	4.31E-04	1.26E-05	8.75E-05	1.44E-04	1.12E-02
373900.00	3763500.00	Commercial	1.31E-03	1.04E-05	2.26E-03	1.51E-03	5.84E-04	1.72E-05	1.17E-04	1.94E-04	1.50E-02
374900.00	3758500.00	Commercial	2.22E-03	1.81E-05	3.88E-03	2.31E-03	9.86E-04	2.98E-05	1.86E-04	3.24E-04	2.48E-02
375900.00	3754500.00	Commercial	1.16E-03	1.05E-05	2.18E-03	1.27E-03	5.70E-04	1.63E-05	1.04E-04	1.86E-04	1.31E-02
375900.00	3757500.00	Commercial	3.34E-03	3.18E-05	6.18E-03	2.49E-03	1.59E-03	4.90E-05	2.36E-04	5.05E-04	3.36E-02
375900.00	3758500.00	Commercial	1.75E-03	1.70E-05	3.78E-03	1.89E-03	9.17E-04	2.56E-05	1.60E-04	2.96E-04	2.16E-02
375900.00	3759500.00	Commercial	1.53E-03	1.79E-05	3.62E-03	1.74E-03	9.52E-04	2.47E-05	1.52E-04	3.04E-04	1.83E-02
376900.00	3753500.00	Commercial	9.32E-04	8.99E-06	1.84E-03	1.04E-03	4.86E-04	1.35E-05	8.55E-05	1.58E-04	1.06E-02
376900.00	3754500.00	Commercial	6.80E-04	6.91E-06	1.49E-03	9.95E-04	3.98E-04	9.96E-06	7.65E-05	1.31E-04	8.69E-03
376900.00	3757500.00	Commercial	2.17E-03	1.96E-05	3.83E-03	1.71E-03	9.94E-04	3.10E-05	1.56E-04	3.18E-04	2.17E-02
376900.00	3763500.00	Commercial	7.00E-04	5.95E-06	1.31E-03	8.93E-04	3.40E-04	9.45E-06	6.87E-05	1.13E-04	8.45E-03
377900.00	3758500.00	Commercial	3.49E-03	3.02E-05	6.42E-03	3.75E-03	1.64E-03	4.80E-05	3.05E-04	5.38E-04	3.99E-02
378900.00	3754500.00	Commercial	9.78E-04	8.47E-06	1.86E-03	1.30E-03	4.88E-04	1.33E-05	9.92E-05	1.62E-04	1.19E-02
378900.00	3761500.00	Commercial	8.13E-04	7.28E-06	1.50E-03	8.46E-04	3.91E-04	1.14E-05	6.99E-05	1.27E-04	9.00E-03
378900.00	3763500.00	Commercial	4.19E-04	4.35E-06	9.32E-04	6.14E-04	2.50E-04	6.22E-06	4.77E-05	8.19E-05	5.37E-03
379900.00	3758500.00	Commercial	3.32E-03	3.59E-05	7.14E-03	3.38E-03	1.88E-03	5.15E-05	2.98E-04	6.02E-04	3.75E-02
380900.00	3764500.00	Commercial	1.73E-03	1.68E-05	3.53E-03	1.96E-03	9.13E-04	2.52E-05	1.62E-04	2.96E-04	2.04E-02
381900.00	3753500.00	Commercial	5.88E-04	5.41E-06	1.16E-03	7.49E-04	3.05E-04	8.25E-06	5.87E-05	1.00E-04	7.08E-03
381900.00	3758500.00	Commercial	2.10E-03	2.22E-05	4.38E-03	1.95E-03	1.15E-03	3.23E-05	1.77E-04	3.65E-04	2.30E-02
383900.00	3758500.00	Commercial	1.33E-03	1.27E-05	2.52E-03	1.08E-03	6.48E-04	1.95E-05	9.97E-05	2.07E-04	1.38E-02
383900.00	3759500.00	Commercial	1.41E-03	1.26E-05	2.63E-03	1.41E-03	6.72E-04	1.98E-05	1.18E-04	2.18E-04	1.58E-02
383900.00	3760500.00	Commercial	4.61E-04	4.64E-06	9.78E-04	6.04E-04	2.60E-04	6.77E-06	4.81E-05	8.49E-05	5.62E-03
383900.00	3761500.00	Commercial	6.25E-04	6.44E-06	1.32E-03	7.34E-04	3.50E-04	9.37E-06	6.08E-05	1.13E-04	7.33E-03
368085.00	3755395.00	Residential	4.47E-03	4.36E-05	9.30E-03	5.48E-03	2.41E-03	6.49E-05	4.42E-04	7.87E-04	5.44E-02
368185.00	3755395.00	Residential	5.34E-03	4.71E-05	1.01E-02	5.77E-03	2.56E-03	7.42E-05	4.71E-04	8.38E-04	6.20E-02
368285.00	3755395.00	Residential	4.60E-03	4.48E-05	9.52E-03	5.85E-03	2.50E-03	6.65E-05	4.66E-04	8.18E-04	5.62E-02
368385.00	3755395.00	Residential	4.60E-03	4.49E-05	9.60E-03	5.80E-03	2.50E-03	6.64E-05	4.69E-04	8.18E-04	5.69E-02
368485.00	3755395.00	Residential	4.54E-03	4.50E-05	9.75E-03	6.23E-03	2.56E-03	6.60E-05	4.89E-04	8.40E-04	5.78E-02
368585.00	3755395.00	Residential	4.64E-03	4.57E-05	9.87E-03	6.38E-03	2.60E-03	6.72E-05	4.99E-04	8.54E-04	5.87E-02
368685.00	3755395.00	Residential	4.68E-03	4.58E-05	9.77E-03	6.18E-03	2.58E-03	6.78E-05	4.88E-04	8.46E-04	5.80E-02
368785.00	3755395.00	Residential	4.67E-03	4.61E-05	9.97E-03	6.66E-03	2.65E-03	6.76E-05	5.16E-04	8.72E-04	5.97E-02
368885.00	3755395.00	Residential	4.58E-03	4.58E-05	1.01E-02	7.09E-03	2.69E-03	6.63E-05	5.39E-04	8.88E-04	6.11E-02
368985.00	3755395.00	Residential	4.54E-03	4.71E-05	1.04E-02	7.74E-03	2.74E-03	6.70E-05	5.40E-04	9.04E-04	6.12E-02
369085.00	3755395.00	Commercial	4.51E-03	4.97E-05	1.09E-02	7.24E-03	2.89E-03	6.87E-05	5.59E-04	9.49E-04	6.24E-02
369185.00	3755395.00	Commercial	4.54E-03	5.14E-05	1.13E-02	7.36E-03	2.99E-03	7.02E-05	5.71E-04	9.78E-04	6.35E-02
369285.00	3755395.00	Residential	4.58E-03	5.25E-05	1.17E-02	7.64E-03	3.07E-03	7.12E-05	5.91E-04	1.00E-03	6.59E-02
369385.00	3755395.00	Residential	6.57E-03	6.05E-05	1.41E-02	1.01E-02	3.81E-03	9.11E-05	7.64E-04	1.20E-03	9.02E-02
369485.00	3755395.00	Residential	6.49E-03	6.33E-05	1.47E-02	1.06E-02	3.79E-03	9.23E-05	7.94E-04	1.26E-03	9.16E-02
369585.00	3755395.00	Residential	6.90E-03	5.91E-05	1.41E-02	1.09E-02	3.61E-03	9.20E-05	8.02E-04	1.22E-03	9.46E-02
369685.00	3755395.00	Residential/Commercial	6.16E-03	5.15E-05	1.24E-02	9.84E-03	3.17E-03	8.10E-05	7.17E-04	1.07E-03	8.47E-02
369785.00	3755395.00	Residential	6.54E-03	5.27E-05	1.27E-02	1.00E-02	3.22E-03	8.48E-05	7.31E-04	1.09E-03	8.82E-02
369885.00	3755395.00	Residential	5.98E-03	5.15E-05	1.22E-02	9.06E-03	3.09E-03	8.02E-05	6.73E-04	1.04E-03	8.10E-02
369985.00	3755395.00	Residential	5.16E-03	4.67E-05	1.11E-02

Table 2-2.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2018 Mitigated Construction, Construction TAC Concentrations - Organics Only

	acetaldehyde	acrolein	benzene	formaldehyde	methyl alcohol	methyl ethyl ketone	styrene	toluene	xylene, total	1,3-Butadiene	ethyl benzene
	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)
Commercial - Onsite **Max Location**	404	404	404	404	404	404	404	404	404	404	404
Maximum Onsite Concentration-->	1.12E-01	2.16E-04	2.16E-01	2.25E-01	6.50E-04	2.24E-02	1.10E-03	3.18E-02	2.39E-02	3.78E-03	6.44E-03
Average Onsite Concentration-->	7.52E-02	1.44E-04	1.28E-01	1.52E-01	4.37E-04	1.51E-02	7.42E-04	2.14E-02	1.60E-02	2.54E-03	4.33E-03
Minimum Onsite Concentration-->	3.88E-02	7.25E-05	3.93E-02	7.82E-02	2.24E-04	7.79E-03	3.81E-04	1.09E-02	8.20E-03	1.30E-03	2.22E-03
Commercial - Offsite **Max Location**	790	813	782	790	813	790	813	813	813	813	813
Maximum Offsite Concentration-->	6.09E-01	3.74E-03	8.37E-01	1.23E+00	5.48E-03	1.22E-01	7.56E-03	2.68E-01	2.11E-01	2.88E-02	5.17E-02
Average Offsite Concentration-->	8.40E-02	2.35E-04	9.36E-02	1.70E-01	5.54E-04	1.68E-02	8.95E-04	2.71E-02	2.06E-02	3.14E-03	5.42E-03
Minimum Offsite Concentration-->	3.20E-03	9.72E-06	2.86E-03	6.48E-03	2.13E-05	6.42E-04	3.48E-05	1.07E-03	8.14E-04	1.23E-04	2.13E-04
Residential **Max Location**	474	474	474	474	474	474	474	474	474	474	474
Maximum Offsite Concentration-->	3.20E-01	1.44E-03	2.05E-01	6.52E-01	2.60E-03	6.41E-02	3.89E-03	1.27E-01	9.84E-02	1.42E-02	2.50E-02
Average Offsite Concentration-->	2.54E-02	6.40E-05	2.25E-02	5.14E-02	1.61E-04	5.10E-03	2.65E-04	7.89E-03	5.98E-03	9.21E-04	1.58E-03
Minimum Offsite Concentration-->	1.54E-03	4.48E-06	1.40E-03	3.12E-03	1.03E-05	3.09E-04	1.66E-05	5.04E-04	3.84E-04	5.83E-05	1.01E-04
CalEPA Acute REL	470	2.5	27	55	28000	13000	21000	37000	22000	660	2000
Commercial - Onsite											
Onsite Maximum Acute Hazard-->	2.37E-04	8.65E-05	8.02E-03	4.09E-03	2.32E-08	1.72E-06	5.25E-08	8.59E-07	1.09E-06	5.72E-06	3.22E-06
Onsite Average Acute Hazard-->	1.60E-04	5.78E-05	4.74E-03	2.76E-03	1.56E-08	1.16E-06	3.53E-08	5.77E-07	7.29E-07	3.85E-06	2.16E-06
Onsite Minimum Acute Hazard-->	8.25E-05	2.90E-05	1.45E-03	1.42E-03	7.98E-09	5.99E-07	1.81E-08	2.95E-07	3.73E-07	1.97E-06	1.11E-06
Commercial - Offsite											
Offsite Maximum Acute Hazard-->	1.30E-03	1.50E-03	3.10E-02	2.23E-02	1.96E-07	9.41E-06	3.60E-07	7.23E-06	9.60E-06	4.36E-05	2.59E-05
Offsite Average Acute Hazard-->	1.79E-04	9.38E-05	3.47E-03	3.09E-03	1.98E-08	1.30E-06	4.26E-08	7.32E-07	9.36E-07	4.75E-06	2.71E-06
Offsite Minimum Acute Hazard-->	6.81E-06	3.89E-06	1.06E-04	1.18E-04	7.79E-10	4.94E-08	1.66E-09	2.88E-08	3.70E-08	1.86E-07	1.06E-07
Residential											
Offsite Maximum Acute Hazard-->	6.81E-04	5.74E-04	7.60E-03	1.18E-02	9.28E-08	4.93E-06	1.85E-07	3.43E-06	4.47E-06	2.15E-05	1.25E-05
Offsite Average Acute Hazard-->	5.41E-05	2.56E-05	8.32E-04	9.34E-04	5.76E-09	3.92E-07	1.26E-08	2.13E-07	2.72E-07	1.40E-06	7.92E-07
Offsite Minimum Acute Hazard-->	3.28E-06	1.79E-06	5.20E-05	5.67E-05	3.69E-10	2.38E-08	7.89E-10	1.36E-08	1.75E-08	8.83E-08	5.04E-08

Table 2-2.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2018 Mitigated Construction, Construction TAC Concentrations - Organics Only

X	Y	Receptor Type	acetaldehyde	acrolein	benzene	formaldehyde	methyl alcohol	methyl ethyl ketone	styrene	toluene	xylene, total	1,3-Butadiene	ethyl benzene
			($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)
369131.40	3758945.42	Residential/Commercial	3.29E-02	7.81E-05	4.34E-02	6.65E-02	2.05E-04	6.61E-03	3.38E-04	1.00E-02	7.57E-03	1.17E-03	2.01E-03
370190.78	3758848.26	Residential/Commercial	7.66E-02	1.23E-04	4.06E-02	1.54E-01	4.24E-04	1.54E-02	7.36E-04	2.07E-02	1.56E-02	2.49E-03	4.22E-03
370747.03	3758937.58	Residential/Commercial	4.98E-03	1.29E-05	2.64E-03	9.00E-03	3.08E-05	9.98E-04	5.20E-05	1.56E-03	1.18E-03	1.86E-04	3.13E-04
370757.72	3755124.52	Residential/Commercial	7.43E-02	1.56E-04	1.08E-01	1.50E-01	4.44E-04	1.49E-02	7.45E-04	2.17E-02	1.63E-02	2.56E-03	4.38E-03
370946.31	3758260.69	Residential/Commercial	1.16E-01	2.32E-04	6.14E-02	2.32E-01	6.14E-04	2.32E-02	1.08E-03	3.00E-02	2.22E-02	3.64E-03	6.14E-03
371368.79	3758418.82	Residential/Commercial	2.50E-02	6.76E-05	2.02E-02	5.00E-02	1.63E-04	5.01E-03	2.64E-04	7.96E-03	6.05E-03	9.24E-04	1.59E-03
371786.04	3754168.42	Residential/Commercial	1.18E-02	3.53E-05	1.48E-02	2.39E-02	8.00E-05	2.37E-03	1.28E-04	3.91E-03	2.98E-03	4.51E-04	7.81E-04
373756.25	3761779.11	Residential/Commercial	1.36E-02	3.91E-05	1.23E-02	2.75E-02	9.05E-05	2.72E-03	1.46E-04	4.43E-03	3.37E-03	5.12E-04	8.85E-04
369734.03	3758536.57	Residential/Commercial	2.22E-02	4.54E-05	3.89E-02	4.50E-02	1.44E-04	4.48E-03	2.23E-04	6.46E-03	4.80E-03	7.64E-04	1.30E-03
368069.11	3760165.13	Residential/Commercial	2.55E-02	4.91E-05	2.24E-02	5.14E-02	1.48E-04	5.12E-03	2.52E-04	7.25E-03	5.44E-03	8.62E-04	1.47E-03
369125.38	3763066.25	Residential/Commercial	5.14E-03	1.34E-05	5.00E-03	1.04E-02	3.30E-05	1.03E-03	5.39E-05	1.61E-03	1.22E-03	1.88E-04	3.24E-04
369225.45	3764227.42	Residential/Commercial	4.96E-03	1.29E-05	4.64E-03	9.00E-03	2.85E-05	8.98E-04	4.70E-05	1.41E-03	1.07E-03	1.66E-04	2.85E-04
370236.75	3761140.30	Residential/Commercial	9.30E-03	2.30E-05	8.49E-03	1.88E-02	5.86E-05	1.87E-03	9.64E-05	2.87E-03	2.17E-03	3.35E-04	5.76E-04
372218.41	3759157.53	Residential/Commercial	3.15E-02	7.78E-05	2.31E-02	6.37E-02	1.99E-04	6.33E-03	3.27E-04	9.72E-03	7.36E-03	1.14E-03	1.95E-03
372267.44	3762886.25	Residential/Commercial	2.51E-02	5.29E-05	8.81E-02	2.26E-02	6.81E-05	2.24E-03	1.13E-04	3.92E-03	2.51E-03	3.92E-04	6.71E-04
374498.14	3758643.27	Residential/Commercial	1.33E-02	3.73E-05	1.26E-02	2.70E-02	8.81E-05	2.68E-03	1.42E-04	4.30E-03	3.28E-03	4.99E-04	8.61E-04
375472.61	3759680.03	Residential/Commercial	1.86E-02	6.66E-05	3.12E-02	3.78E-02	1.36E-04	3.73E-03	2.11E-04	6.64E-03	5.10E-03	7.56E-04	1.32E-03
376514.33	3757500.61	Residential/Commercial	2.51E-02	5.29E-05	3.99E-02	5.08E-02	1.63E-04	5.06E-03	2.58E-04	8.13E-03	5.76E-03	8.93E-04	1.53E-03
377395.41	3759189.37	Residential/Commercial	9.07E-03	2.91E-05	8.52E-03	1.84E-02	6.33E-05	1.82E-03	1.00E-04	3.09E-03	2.36E-03	3.55E-04	6.16E-04
366363.62	3757753.10	Fenceline	1.90E-02	4.08E-05	2.32E-02	3.84E-02	1.14E-04	3.82E-03	1.92E-04	5.59E-03	4.21E-03	6.60E-04	1.13E-03
366385.71	3758351.85	Fenceline	4.21E-02	7.04E-05	7.66E-02	8.48E-02	2.92E-04	9.67E-03	4.67E-04	1.39E-02	9.66E-03	1.38E-03	2.34E-03
369388.19	3758584.61	Fenceline	5.26E-02	8.64E-05	7.16E-02	1.06E-01	2.93E-04	1.06E-02	5.06E-04	1.43E-02	1.07E-02	1.72E-03	2.91E-03
371727.30	3758286.14	Fenceline	7.87E-02	1.48E-04	5.11E-02	1.59E-01	4.54E-04	1.58E-02	7.74E-04	2.22E-02	1.67E-02	2.64E-03	4.50E-03
371973.19	3757657.97	Fenceline	4.60E-01	2.51E-03	8.81E-01	2.02E-01	6.81E-03	2.24E-03	1.13E-04	3.92E-03	2.51E-03	3.92E-04	6.71E-04
372028.99	3757658.28	Fenceline	4.25E-01	4.73E-03	4.53E-01	8.87E-01	5.99E-03	8.43E-02	7.68E-03	2.92E-01	2.34E-01	3.05E-02	5.58E-02
372057.72	3757303.44	Fenceline	1.49E-01	5.65E-04	2.02E-01	3.03E-01	1.12E-03	2.99E-02	1.72E-03	5.46E-02	4.20E-02	6.19E-03	1.08E-02
372058.94	3757965.68	Fenceline	1.37E-01	8.00E-05	2.88E-02	8.31E-02	2.40E-04	8.28E-03	4.08E-04	1.16E-02	8.82E-03	1.40E-03	2.38E-03
369154.15	3758166.98	Fenceline	3.72E-02	8.35E-05	3.29E-02	7.51E-02	2.27E-04	7.47E-03	3.78E-04	1.11E-02	8.38E-03	1.31E-03	2.24E-03
369214.54	3758209.64	Fenceline	3.65E-02	7.24E-05	2.99E-02	7.37E-02	2.14E-04	7.34E-03	3.63E-04	1.05E-02	7.88E-03	1.24E-03	2.12E-03
369279.67	3758015.34	Fenceline	5.43E-02	1.13E-04	5.35E-02	1.09E-01	3.24E-04	1.09E-02	5.44E-04	1.58E-02	1.19E-02	1.87E-03	3.20E-03
369788.09	3758340.35	Fenceline	6.21E-02	9.55E-05	6.52E-02	1.25E-01	3.39E-04	1.25E-02	5.92E-04	1.66E-02	1.24E-02	2.00E-03	3.55E-03
369790.55	3758580.31	Fenceline	4.80E-02	1.00E-04	4.76E-02	9.69E-02	2.86E-04	9.64E-03	4.81E-04	1.40E-02	1.05E-02	1.65E-03	2.83E-03
371537.21	3758959.02	Fenceline	3.85E-01	1.19E-03	1.35E+00	7.80E-01	2.65E-03	7.72E-02	4.21E-03	1.29E-01	9.88E-02	1.49E-02	2.58E-02
371736.26	3757371.88	Fenceline	1.15E+00	2.86E-03	4.70E-01	2.33E+00	7.28E-03	2.31E-01	1.20E-02	3.56E-01	2.70E-01	4.16E-02	7.15E-02
371795.72	3757393.54	Fenceline	6.16E-01	1.84E-03	3.38E-01	1.25E+00	4.17E-03	1.24E-01	6.67E-03	2.04E-01	1.56E-01	2.35E-02	4.07E-02
371925.67	3757658.96	Fenceline	4.91E-01	2.00E-03	2.57E-01	9.98E-01	3.81E-03	9.83E-02	5.79E-03	1.86E-01	1.44E-01	2.09E-02	3.67E-02
367720.95	3758278249.47	Fenceline	2.71E-02	5.68E-05	2.68E-02	5.47E-02	1.62E-04	5.46E-03	2.72E-04	7.92E-03	5.96E-03	9.36E-04	1.60E-03
366410.42	3757645.39	Fenceline	2.00E-02	4.39E-05	2.60E-02	4.04E-02	1.21E-04	4.02E-03	2.02E-04	5.92E-03	4.47E-03	6.98E-04	1.19E-03
366412.06	3757743.84	Fenceline	1.92E-02	4.12E-05	2.36E-02	3.88E-02	1.15E-04	3.86E-03	1.94E-04	5.65E-03	4.26E-03	6.67E-04	1.14E-03
366449.10	3757556.84	Fenceline	2.13E-02	4.62E-05	2.72E-02	4.29E-02	1.28E-04	4.27E-03	2.15E-04	6.28E-03	4.73E-03	7.40E-04	1.27E-03
366471.13	3757711.22	Fenceline	1.94E-02	4.24E-05	2.46E-02	3.91E-02	1.17E-04	3.89E-03	1.96E-04	5.73E-03	4.32E-03	6.76E-04	1.16E-03
366487.79	3757468.29	Fenceline	2.22E-02	4.80E-05	2.68E-02	4.49E-02	1.34E-04	4.47E-03	2.24E-04	6.55E-03	4.94E-03	7.73E-04	1.32E-03
366526.47	3757379.74	Fenceline	2.28E-02	4.87E-05	2.67E-02	4.60E-02	1.37E-04	4.57E-03	2.29E-04	6.69E-03	5.04E-03	7.90E-04	1.35E-03
366543.32	3757684.41	Fenceline	2.01E-02	4.42E-05	2.56E-02	4.06E-02	1.22E-04	4.04E-03	2.04E-04	5.96E-03	4.49E-03	7.02E-04	1.20E-03
366565.16	3757291.19	Fenceline	2.30E-02	4.88E-05	2.76E-02	4.64E-02	1.38E-04	4.62E-03	2.31E-04	6.74E-03	5.07E-03	7.95E-04	1.36E-03
366572.51	3757757.35	Fenceline	2.29E-02	5.07E-05	2.57E-02	4.62E-02	1.39E-04	4.62E-03	2.32E-04	6.77E-03	5.11E-03	7.98E-04	1.37E-03
366603.85	3757202.64	Fenceline	2.28E-02	4.79E-05	2.68E-02	4.61E-02	1.36E-04	4.59E-03	2.29E-04	6.67E-03	5.02E-03	7.88E-04	1.35E-03
366629.35	3757738.18	Fenceline	2.34E-02	5.23E-05	2.68E-02	4.73E-02	1.43E-04	4.71E-03	2.38E-04	6.98E-03	5.27E-03	8.22E-04	1.41E-03
366642.53	3757714.09	Fenceline	2.23E-02	4.67E-05	2.66E-02	4.48E-02	1.33E-04	4.46E-03	2.23E-04	6.48E-03	4.88E-03	7.67E-04	1.31E-03
366681.22	3757025.54	Fenceline	2.14E-02	4.35E-05	2.81E-02	4.32E-02	1.27E-04	4.30E-03	2.14E-04	6.19E-03	4.66E-03	7.33E-04	1.25E-03
366700.77	3757739.37	Fenceline	2.05E-02	4.39E-05	2.39E-02	4.14E-02	1.23E-04	4.12E-03	2.06E-04	6.02E-03	4.54E-03	7.11E-04	1.22E-03
366719.91	3758936.99	Fenceline	2.03E-02	4.09E-05	2.49E-02	4.09E-02	1.21E-04	4.08E-03	2.02E-04	5.85E-03	4.40E-03	6.93E-04	1.18E-03
366758.59	3756848.44	Fenceline	1.88E-02	3.75E-05	2.99E-02	3.80E-02	1.11E-04	3.78E-03	1.87E-04	5.41E-03	4.07E-03	6.42E-04	1.09E-03
366780.64	3757782.90	Fenceline	2.10E-02	4.50E-05	2.20E-02	4.23E-02	1.26E-04	4.21E-03	2.11E-04	6.16E-03	4.65E-03	7.27E-04	1.24E-03
366797.28	3756759.89	Fenceline	1.70E-02	3.33E-05	2.74E-02	3.43E-02	9.93E-05	3.41E-03	1.68E-04	4.86E-03	3.65E-03	5.76E-04	9.83E-04
366835.96	3756871.34	Fenceline	1.49E-02	2.96E-05	2.32E-02	3.00E-02	8.80E-05	2.99E-03	1.48E-04	4.30E-03	3.24E-03	5.10E-04	8.70E-04
366869.69	3757831.79	Fenceline	2.13E-02	4.58E-05	1.95E-02	4.30E-02	1.28E-04	4.28E-03	2.15E-04	6.27E-03	4.73E-03	7.40E-04	1.27E-03
366874.65	3756582.79	Fenceline	1.42E-02	2.90E-05	1.85E-02	2.87E-02	8.42E-05	2.86E-03	1.42E-04	4.12E-03	3.10E-03	4.88E-04	8.32E-04
366900.00	3756500.00	Fenceline	1.55E-02	3.12E-05	1.90E-02	3.12E-02	9.08E-05	3.11E-03	1.54E-04	4.49E-03	3.34E-03	5.27E-04	9.08E-04
366913.34	3756494.23	Fenceline	1.59E-02	3.13E-05	1.92E-02	3.20E-02	9.30E-05	3.19E-03	1.57E-04	4.55E-03	3.42E-03	5.39E-04	9.20E-04
366921.75	3757860.58	Fenceline	2.15E-02	4.63E-05	1.96E-02	4.33E-02	1.29E-04	4.31E-03	2.17E-04	6.32E-03	4.77E-03	7.46E-04	1.28E-03
366952.02	3756405.68	Fenceline	1.90E-02	3.73E-05	1.96E-02	3.83E-02	1.11E-04	3.81E-03	1.88E-04	5.43E-03	4.08E-03	6.44E-04	1.10E-03
366982.97	3757895.00	Fenceline	2.17E-02	4.68E-05	2.07E-02	4.38E-02	1.31E-04	4.36E-03	2.19E-04	6.39E-03	4.82E-03	7.54E-04	1.29E-03
366990.71	3756317.13	Fenceline	2.20E-02	4.31E-05	1.91E-02	4.43E-02	1.29E-04	4.42E-03	2.18E-04	6.29E-03	4.72E-03	7.46E-04	1.27E-03
367029.39	3756228.58	Fenceline	2.47E-02	4.83E-05	1.79E-02	5.12E-02	1.44E-04	4.95E-03	2.44E-04	7.09E-03	5.29E-03	8.37E-04	1.43E-03
367044.19	3757929.41	Fenceline	2.29E-02	5.38E-05	2.28E-02	4.62E-02	1.42E-04	4.59E-03	2.35E-04	6.93E-03	5.24E-03	8.13E-04	1.39E-03
367068.08	3756140.03	Fenceline	2.67E-02	5.25E-05	1.63E-02	5.38E-02	1.56E-04	5.36E-03	2.65E-04	7.64E-03	5.74E-03	9.06E-04	1.55E-03
367106.77	3756051.48	Fenceline	2.78E-02	5.53E-05	1.81E-02	5.61E-02	1.63E-04	5.59E-03	2.76E-04	7.99E-03	6.01E-03	9.48E-04	1.62E-03
367145.45	3755962.93	Fenceline	2.78E-02	5.63E-05	2.24E-02	5.61E-02	1.64E-04	5.58E-03	2.77E-04	8.03E-03	6.04E-03	9.51E-04	1.62E-03
367163.35	3757937.75	Fenceline	2.83E-02	5.91E-05	2.64E-02	5.71E-02	1.69E-04	5.68E-03	2.84E-04	8.25E-03	6.21E-03	9.75E-04	1.67E-03

Table 2-2.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2018 Mitigated Construction, Construction TAC Concentrations - Organics Only

X	Y	Receptor Type	acetaldehyde	acrolein	benzene	formaldehyde	methyl alcohol	methyl ethyl ketone	styrene	toluene	xylene, total	1,3-Butadiene	ethyl benzene
			($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)
367184.14	3755874.38	Fenceline	2.67E-02	5.55E-05	2.68E-02	5.38E-02	1.59E-04	5.36E-03	2.67E-04	7.77E-03	5.85E-03	9.19E-04	1.57E-03
367222.83	3755785.83	Fenceline	2.49E-02	5.29E-05	3.03E-02	5.03E-02	1.49E-04	5.01E-03	2.51E-04	7.31E-03	5.50E-03	8.63E-04	1.47E-03
367261.51	3755697.28	Fenceline	2.58E-02	5.03E-05	3.24E-02	5.01E-02	1.46E-04	5.01E-03	2.53E-04	7.30E-03	5.48E-03	8.60E-04	1.46E-03
367284.84	3757912.25	Fenceline	2.37E-02	5.03E-05	2.36E-02	4.77E-02	1.42E-04	4.75E-03	2.38E-04	6.93E-03	5.22E-03	8.19E-04	1.40E-03
367300.20	3755608.73	Fenceline	2.86E-02	5.16E-05	3.27E-02	5.76E-02	1.63E-04	5.74E-03	2.79E-04	7.98E-03	5.97E-03	9.51E-04	1.62E-03
367338.88	3755520.18	Fenceline	3.06E-02	5.76E-05	3.77E-02	6.15E-02	3.01E-04	8.64E-03	6.48E-03	1.03E-02	1.00E-02	1.75E-03	3.04E-03
367348.39	3757912.82	Fenceline	2.41E-02	5.12E-05	2.42E-02	4.87E-02	1.45E-04	4.84E-03	2.43E-04	7.07E-03	5.32E-03	8.35E-04	1.43E-03
367377.57	3755431.63	Fenceline	3.13E-02	6.19E-05	3.09E-02	6.32E-02	1.84E-04	6.29E-03	3.11E-04	8.98E-03	6.74E-03	1.07E-03	1.82E-03
367401.92	3757982.92	Fenceline	2.49E-02	5.27E-05	2.45E-02	5.03E-02	1.49E-04	5.01E-03	2.51E-04	7.30E-03	5.51E-03	8.63E-04	1.47E-03
367464.88	3755430.72	Fenceline	3.21E-02	6.45E-05	3.14E-02	6.48E-02	1.89E-04	6.45E-03	3.20E-04	9.25E-03	6.95E-03	1.10E-03	1.87E-03
367498.60	3757937.52	Fenceline	2.54E-02	5.37E-05	2.54E-02	5.13E-02	1.50E-04	5.10E-03	2.55E-04	7.44E-03	5.60E-03	8.78E-04	1.50E-03
367539.80	3757894.76	Fenceline	2.56E-02	5.34E-05	2.56E-02	5.06E-02	1.50E-04	5.03E-03	2.52E-04	7.39E-03	5.53E-03	8.67E-04	1.48E-03
367552.20	3755429.80	Fenceline	3.26E-02	6.68E-05	3.15E-02	6.57E-02	1.93E-04	6.54E-03	3.25E-04	9.44E-03	7.10E-03	1.12E-03	1.91E-03
367596.95	3757879.64	Fenceline	2.56E-02	5.41E-05	2.62E-02	5.17E-02	1.53E-04	5.14E-03	2.57E-04	7.49E-03	5.64E-03	8.85E-04	1.51E-03
367628.79	3757855.59	Fenceline	2.57E-02	5.46E-05	2.62E-02	5.18E-02	1.53E-04	5.16E-03	2.58E-04	7.53E-03	5.67E-03	8.89E-04	1.52E-03
367639.51	3755428.89	Fenceline	3.28E-02	6.90E-05	3.14E-02	6.62E-02	1.96E-04	6.59E-03	3.29E-04	9.58E-03	7.22E-03	1.13E-03	1.93E-03
367696.39	3757845.44	Fenceline	2.62E-02	5.56E-05	2.70E-02	5.29E-02	1.57E-04	5.26E-03	2.64E-04	7.68E-03	5.78E-03	9.07E-04	1.55E-03
367700.81	3758169.46	Fenceline	3.18E-02	6.64E-05	2.32E-02	6.41E-02	1.86E-04	6.38E-03	3.18E-04	9.28E-03	6.97E-03	1.09E-03	1.87E-03
367707.57	3757896.37	Fenceline	2.67E-02	5.59E-05	2.70E-02	5.38E-02	1.59E-04	5.35E-03	2.68E-04	7.78E-03	5.86E-03	9.20E-04	1.57E-03
367726.83	3755427.97	Fenceline	3.27E-02	7.07E-05	3.12E-02	6.61E-02	1.97E-04	6.58E-03	3.30E-04	9.65E-03	7.27E-03	1.14E-03	1.95E-03
367734.79	3758105.67	Fenceline	3.32E-02	6.76E-05	2.47E-02	6.69E-02	1.96E-04	6.66E-03	3.31E-04	9.66E-03	7.22E-03	1.14E-03	1.94E-03
367743.72	3758010.21	Fenceline	2.83E-02	6.43E-05	2.66E-02	5.71E-02	1.73E-04	5.68E-03	2.88E-04	8.48E-03	6.40E-03	9.96E-04	1.71E-03
367785.33	3758200.53	Fenceline	3.29E-02	6.98E-05	2.64E-02	6.94E-02	1.97E-04	6.61E-03	3.31E-04	9.64E-03	7.26E-03	1.14E-03	1.95E-03
367814.14	3755427.06	Fenceline	3.24E-02	7.19E-05	3.33E-02	6.54E-02	1.97E-04	6.50E-03	3.28E-04	9.63E-03	7.26E-03	1.13E-03	1.94E-03
367830.31	3758150.13	Fenceline	3.31E-02	6.88E-05	2.67E-02	6.87E-02	2.22E-04	6.84E-03	3.31E-04	9.63E-03	7.26E-03	1.13E-03	1.94E-03
367839.73	3758178.15	Fenceline	3.41E-02	7.17E-05	2.70E-02	6.87E-02	2.04E-04	6.84E-03	3.42E-04	9.95E-03	7.50E-03	1.18E-03	2.01E-03
367874.18	3755433.41	Fenceline	3.22E-02	7.28E-05	3.50E-02	6.51E-02	1.97E-04	6.47E-03	3.26E-04	9.64E-03	7.26E-03	1.13E-03	1.94E-03
367912.80	3758112.41	Fenceline	3.26E-02	7.54E-05	2.73E-02	7.58E-02	2.21E-04	7.55E-03	3.74E-04	1.08E-02	8.14E-03	1.28E-03	2.19E-03
367934.21	3755439.76	Fenceline	3.19E-02	7.34E-05	3.66E-02	6.45E-02	1.96E-04	6.41E-03	3.26E-04	9.61E-03	7.26E-03	1.13E-03	1.93E-03
368001.74	3755450.16	Fenceline	3.22E-02	7.41E-05	3.85E-02	6.50E-02	1.98E-04	6.47E-03	3.26E-04	9.68E-03	7.32E-03	1.14E-03	1.95E-03
368067.33	3758044.68	Fenceline	4.16E-02	7.94E-05	2.96E-02	8.27E-02	2.29E-04	8.23E-03	4.05E-04	1.17E-02	8.77E-03	1.39E-03	2.36E-03
368069.28	3755460.56	Fenceline	3.34E-02	7.48E-05	4.07E-02	6.74E-02	2.04E-04

Table 2-2.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2018 Mitigated Construction, Construction TAC Concentrations - Organics Only

X	Y	Receptor Type	acetaldehyde ($\mu g/m^3$)	acrolein ($\mu g/m^3$)	benzene ($\mu g/m^3$)	formaldehyde ($\mu g/m^3$)	methyl alcohol ($\mu g/m^3$)	methyl ethyl ketone ($\mu g/m^3$)	styrene ($\mu g/m^3$)	toluene ($\mu g/m^3$)	xylene, total ($\mu g/m^3$)	1,3-Butadiene ($\mu g/m^3$)	ethyl benzene ($\mu g/m^3$)
371356.75	3757207.46	Fenceline	3.18E-01	7.94E-04	2.29E-01	6.44E-01	2.01E-03	6.39E-02	3.31E-03	9.85E-02	7.46E-02	1.15E-02	1.98E-02
371356.89	3756960.85	Fenceline	7.54E-01	2.43E-03	2.85E+00	1.53E+00	5.27E-03	1.51E-01	8.32E-03	2.57E-01	1.97E-01	2.95E-02	5.13E-02
371402.37	3758061.24	Fenceline	1.00E-01	2.41E-04	6.48E-02	1.70E-01	6.50E-04	1.84E-02	1.08E-03	3.18E-02	2.40E-02	3.74E-03	6.41E-03
371437.81	3757206.27	Fenceline	4.19E-01	9.69E-04	2.68E-01	8.47E-01	2.58E-03	8.42E-02	4.29E-03	1.26E-01	9.55E-02	1.48E-02	2.54E-02
371447.31	3755400.73	Fenceline	2.29E-01	1.07E-04	3.67E-02	8.67E-02	2.71E-04	8.61E-03	4.45E-04	1.32E-02	1.00E-02	1.55E-03	2.66E-03
371455.33	3756959.34	Fenceline	6.82E-01	2.70E-03	2.35E+00	1.38E+00	4.66E-03	1.37E-01	7.53E-03	2.23E-01	1.73E-01	2.67E-02	4.64E-02
371474.09	3758110.88	Fenceline	9.39E-02	3.40E-04	6.36E-02	1.91E-01	6.89E-04	1.88E-02	1.07E-03	3.37E-02	2.59E-02	3.83E-03	6.68E-03
371518.87	3757205.07	Fenceline	5.11E-01	8.17E-04	2.73E-01	1.03E+00	2.82E-03	1.03E-01	4.90E-03	1.38E-01	1.03E-01	1.66E-02	2.81E-02
371537.39	3758154.69	Fenceline	9.28E-02	3.36E-04	6.37E-02	1.88E-01	6.81E-04	1.86E-02	1.06E-03	3.33E-02	2.56E-02	3.79E-03	6.60E-03
371542.99	3755399.65	Fenceline	3.47E-02	9.71E-05	3.48E-02	7.01E-02	2.29E-04	6.96E-03	3.70E-04	1.12E-02	8.52E-03	1.30E-03	2.21E-03
371599.93	3757203.87	Fenceline	4.15E-01	1.04E-03	4.24E-01	8.39E-01	2.63E-03	8.33E-02	4.31E-03	1.28E-01	9.73E-02	1.50E-02	2.58E-02
371600.70	3758198.51	Fenceline	8.38E-02	2.41E-04	5.78E-02	1.70E-01	5.97E-04	1.68E-02	9.35E-04	2.78E-02	2.12E-02	3.33E-03	5.71E-03
371613.52	3756957.47	Fenceline	2.84E-01	8.72E-04	1.08E+00	5.76E-01	1.95E-03	5.70E-02	3.10E-03	9.51E-02	7.26E-02	1.09E-02	1.90E-02
371638.68	3755398.58	Fenceline	2.73E-02	8.65E-05	2.90E-02	5.54E-02	1.89E-04	5.48E-03	3.00E-04	9.26E-03	7.08E-03	1.06E-03	1.84E-03
371652.22	3756956.31	Fenceline	2.47E-01	7.56E-04	9.34E-01	5.00E-01	1.68E-03	4.96E-02	2.69E-03	8.27E-02	6.30E-02	9.50E-03	1.65E-02
371664.00	3758242.33	Fenceline	8.02E-02	1.87E-04	5.02E-02	1.62E-01	4.96E-04	1.61E-02	8.21E-04	2.42E-02	1.83E-02	2.84E-03	4.88E-03
371678.83	3757376.47	Fenceline	1.08E+00	3.68E-03	4.41E-01	2.20E+00	7.73E-03	2.17E-01	1.21E-02	3.78E-01	2.90E-01	4.32E-02	7.51E-02
371680.99	3757202.68	Fenceline	2.51E-01	7.36E-04	5.34E-01	1.88E+00	1.64E-03	4.83E-02	2.62E-03	8.05E-02	6.11E-02	9.25E-03	1.60E-02
371683.71	3757291.78	Fenceline	4.39E-01	1.26E-03	3.29E-01	8.88E-01	2.92E-03	8.80E-02	4.70E-03	1.43E-01	1.09E-01	1.65E-02	2.86E-02
371734.36	3755397.50	Fenceline	2.09E-02	7.50E-05	2.62E-02	4.24E-02	1.53E-04	4.19E-03	2.38E-04	7.47E-03	5.74E-03	8.50E-04	1.48E-03
371750.66	3756954.80	Fenceline	1.86E-01	5.60E-04	7.16E-01	1.88E-01	1.22E-03	3.60E-02	1.95E-03	5.98E-02	4.54E-02	6.87E-03	1.19E-02
371767.81	3758230.27	Fenceline	8.50E-02	1.68E-04	5.66E-02	1.72E-01	4.99E-04	1.71E-02	8.44E-04	2.44E-02	1.83E-02	2.89E-03	4.93E-03
371801.04	3755399.23	Fenceline	2.07E-02	6.67E-05	2.72E-02	4.19E-02	1.44E-04	4.15E-03	2.28E-04	7.06E-03	5.40E-03	8.10E-04	1.41E-03
371812.25	3757364.20	Fenceline	5.66E-01	1.43E-03	5.76E-01	1.74E+00	3.60E-03	1.14E-01	5.96E-03	1.85E-01	1.40E-01	2.13E-02	3.63E-02
371825.62	3758161.92	Fenceline	9.75E-02	1.90E-04	5.85E-02	1.97E-01	5.69E-04	1.96E-02	9.65E-04	2.78E-02	2.09E-02	3.30E-03	5.63E-03
371849.10	3756953.29	Fenceline	1.37E-01	4.06E-04	5.37E-01	2.77E-01	9.24E-04	2.75E-02	1.48E-03	4.52E-02	3.45E-02	5.21E-03	9.02E-03
371866.03	3757363.09	Fenceline	3.90E-01	1.16E-03	3.67E-01	1.38E+00	2.46E-03	7.83E-02	4.04E-03	1.23E-01	9.31E-02	1.42E-02	2.44E-02
371867.72	3755400.96	Fenceline	2.09E-02	5.82E-05	2.81E-02	4.23E-02	1.38E-04	4.20E-03	2.23E-04	6.73E-03	5.12E-03	7.81E-04	1.35E-03
371895.02	3758059.68	Fenceline	9.74E-02	2.35E-04	6.13E-02	1.97E-01	6.09E-04	1.95E-02	1.00E-03	2.98E-02	2.25E-02	3.49E-03	5.99E-03
371898.90	3758134.17	Fenceline	8.76E-02	2.09E-04	5.66E-02	1.82E-01	5.62E-04	1.80E-02	9.26E-04	2.76E-02	2.08E-02	3.22E-03	5.53E-03
371909.58	3757435.59	Fenceline	3.76E-01	1.25E-03	3.08E-01	7.63E-01	2.66E-03	7.55E-02	4.18E-03	1.30E-01	9.95E-02	1.49E-02	2.58E-02
371916.85	3757398.54	Fenceline	2.31E-01	7.53E-04	3.15E-01	4.68E-01	1.62E-03	4.63E-02	2.55E-03	7.92E-02	6.06E-02	9.07E-03	1.58E-02
371917.20	3757362.27	Fenceline	2.72E-01	7.26E-04	6.27E-01	5.49E-01	1.76E-03	5.45E-02	2.87E-03	8.62E-02	6.55E-02	1.00E-02	1.75E-02
371927.01	3757742.18	Fenceline	5.32E-01	1.57E-03	2.52E-01	1.68E+00	3.71E-03	1.03E-01	1.81E-03	1.39E-01	1.08E-01	1.61E-02	2.82E-02
371928.06	3757790.69	Fenceline	5.11E-01	2.02E-03	2.71E-01	1.04E+00	3.91E-03	1.02E-01	5.97E-03	1.91E-01	1.47E-01	2.16E-02	3.77E-02
371934.40	3755402.69	Fenceline	2.09E-02	5.05E-05	2.66E-02	4.21E-02	1.39E-04	4.19E-03	2.15E-04	6.38E-03	4.83E-03	7.48E-04	1.28E-03
371934.40	3757852.44	Fenceline	4.14E-01	1.01E-03	4.20E-01	8.29E-01	2.60E-03	8.23E-02	4.26E-03	1.27E-01	9.61E-02	1.48E-02	2.55E-02
371937.61	3757919.43	Fenceline	2.85E-01	6.00E-04	1.19E-01	5.75E-01	1.70E-03	5.72E-02	2.86E-03	8.33E-02	6.27E-02	9.84E-03	1.68E-02
371940.82	3757986.42	Fenceline	1.76E-01	2.89E-04	8.35E-02	3.55E-01	9.79E-04	3.54E-02	1.70E-03	4.79E-02	3.58E-02	5.74E-03	9.74E-03
371944.03	3758053.41	Fenceline	1.02E-01	2.81E-04	6.04E-02	2.00E-01	7.58E-04	2.00E-02	1.04E-03	3.09E-02	2.27E-02	3.49E-03	5.92E-03
371947.54	3756951.78	Fenceline	1.87E-01	3.17E-04	4.32E-01	3.77E-01	1.05E-03	3.76E-02	1.81E-03	5.13E-02	3.83E-02	6.14E-03	1.04E-02
371954.98	3757424.18	Fenceline	2.71E-01	1.03E-03	3.10E-01	5.50E-01	2.03E-03	5.43E-02	3.13E-03	9.92E-02	7.64E-02	1.12E-02	1.96E-02
371957.70	3757423.51	Fenceline	2.30E-01	6.91E-04	3.27E-01	4.66E-01	1.60E-03	4.60E-02	2.53E-03	7.85E-02	6.00E-02	8.89E-03	1.56E-02
371957.70	3757424.85	Fenceline	2.30E-01	6.91E-04	3.27E-01	4.66E-01	1.60E-03	4.60E-02	2.53E-03	7.85E-02	6.00E-02	8.89E-03	1.56E-02
372031.48	3757755.88	Fenceline	4.04E-01	5.09E-03	4.65E-01	8.49E-01	6.23E-03	8.01E-02	7.84E-03	3.04E-01	2.45E-01	3.15E-02	5.78E-02
372033.85	3755399.05	Fenceline	1.94E-02	5.03E-05	2.81E-02	3.93E-02	1.25E-04	3.90E-03	2.03E-04	6.09E-03	4.62E-03	7.09E-04	1.22E-03
372045.99	3756950.26	Fenceline	1.86E-01	5.60E-04	7.16E-01	1.88E-01	1.22E-03	3.60E-02	1.95E-03	5.98E-02	4.54E-02	6.87E-03	1.19E-02
372060.42	3757422.83	Fenceline	1.99E-01	1.04E-03	3.03E-01	4.06E-01	1.74E-03	3.98E-02	2.55E-03	8.51E-02	6.64E-02	9.41E-03	1.67E-02
372097.97	3757754.97	Fenceline	7.11E-01	5.97E-03	6.04E-01	1.47E+00	8.28E-03	1.42E-01	1.11E-02	4.04E-01	3.21E-01	4.30E-02	7.78E-02
372114.62	3757440.24	Fenceline	2.09E-02	6.82E-04	2.77E-01	4.25E-01	1.47E-03	4.22E-02	2.32E-03	7.18E-02	5.50E-02	8.23E-03	1.43E-02
372133.29	3755395.42	Fenceline	1.75E-02	4.80E-05	3.62E-02	3.54E-02	1.15E-04	3.51E-03	1.85E-04	5.60E-03	4.26E-03	6.50E-04	1.12E-03
372144.43	3756948.75	Fenceline	1.35E-01	2.10E-04	2.71E-01	2.72E-01	7.40E-04	2.71E-02	1.29E-03	3.62E-02	2.70E-02	4.35E-03	7.37E-03
372152.01	3757362.33	Fenceline	1.01E-01	2.79E-04	6.00E-02	1.99E-01	7.53E-04	1.99E-02	1.03E-03	3.07E-02	2.25E-02	3.47E-03	5.89E-03
372153.80	3757418.83	Fenceline	1.57E-01	5.48E-04	2.27E-01	3.18E-01	1.13E-03	3.15E-02	1.77E-03	5.54E-02	4.25E-02	6.32E-03	1.10E-02
372154.47	3757439.86	Fenceline	1.92E-01	6.95E-04	2.50E-01	3.86E-01	1.41E-03	3.84E-02	2.19E-03	6.88E-02	5.29E-02	7.82E-03	1.36E-02
372156.97	3757518.41	Fenceline	3.22E-01	1.61E-03	3.47E-01	1.06E+00	2.76E-03	6.43E-02	3.66E-03	1.15E-01	8.86E-02	1.32E-02	2.30E-02
372159.47	3757596.96	Fenceline	4.61E-01	2.15E-03	3.17E-01	9.39E-01	3.81E-03	9.22E-02	5.68E-03	1.86E-01	1.45E-01	2.08E-02	3.66E-02
372161.97	3757675.51	Fenceline	6.60E-01	4.51E-03	4.69E-01	1.36E+00	6.75E-03	1.32E-01	9.41E-03	3.30E-01	2.60E-01	3.57E-02	6.39E-02
372164.46	3757754.06	Fenceline	5.22E-01	4.42E-03	4.20E-01	1.08E+00	6.11E-03	1.04E-01	8.21E-03	2.98E-01	2.36E-01	3.13E-02	5.82E-02
372232.73	3755391.79	Fenceline	1.73E-02	4.52E-05	5.07E-02	3.51E-02	1.12E-04	3.48E-03	1.82E-04	5.45E-03	4.14E-03	6.35E-04	1.09E-03
372242.87	3756947.24	Fenceline	1.09E-01	1.76E-04	2.18E-01	2.20E-01	6.05E-04	2.20E-02	1.06E-03	2.96E-02	2.21E-02	3.55E-03	6.02E-03
372332.18	3755388.15	Fenceline	1.66E-02	5.01E-05	3.60E-02	3.36E-02	1.12E-04	3.81E-03	1.82E-04	5.29E-03	3.98E-03	6.19E-04	1.04E-03
372341.31	3756945.73	Fenceline	1.00E-01	1.49E-04	1.81E-01	2.02E-01	5.44E-04	2.02E-02	9.53E-04	2.66E-02	1.98E-02	3.21E-03	5.43E-03
372410.73	3755381.99	Fenceline	2.11E-02	5.20E-05	6.24E-02	4.26E-02	1.33E-04	4.24E-03	2.19E-04	6.50E-03	4.92E-03	7.60E-04	1.31E-03
372439.76	3756944.21	Fenceline	8.54E-02	1.83E-04	1.51E-01	1.72E-01	5.13E-04	1.72E-02	8.60E-04	2.51E-02	1.88E-02	2.96E-03	5.07E-03
372489.28	3755375.83	Fenceline	2.32E-02	5.20E-05	6.24E-02	4.26E-02	1.33E-04	4.24E-03	2.19E-04	6.50E-03	4.92E-03	7.60E-04	1.31E-03
372538.20	3756942.70	Fenceline	6.97E-02	2.03E-04	1.27E-01	1.41E-01	4.67E-04	1.40E-02	7.50E-04	2.28E-02	1.74E-02	2.64E-03	4.56E-03
372567.83	3755369.67	Fenceline	2.54E-02	5.39E-05	5.14E-02	5.13E-02	1.52E-04	5.11E-03	2.66E-04	7.46E-03	5.61E-03	8.80E-04	1.50E-03
372621.24	3755369.96	Fenceline	2.71E-02	5.64E-05	8.66E-02	9.54E-02	3.76E-04	9.38E-03	5.65E-04	1.83E-02	1.42E-02	2.06E-03	3.61E-03
372627.96	3756505.77	Fenceline	5.12E-02	1.24E-04	4.18E-02	1.04E-01	3.21E-04	1.03E-02	5.29E-04	1.57E-02	1.19E-02	1.84E-03	3.15E-03
372628.35	3756589.05	Fenceline	5.74E-02	1.32E-04	4.39E-02	1.16E-01	3.54E-04	1.15E-02	5.87E-04	1.73E-02	1.31E-02	2.03E-03	3.48E-03
372630.81	3757028.03	Fenceline	4.87E-02	1.91E-04	1.58E-01	9.91E-02	3.71E-04	9.77E-03	5.60E-04	1.81E-02	1.40E-02	2.06E-03	3.59E-03
372632.23	3757120.50	Fenceline	4.64E-02	1.82E-04	1.61E-01	9.43E-02	3.53E-04	9.30E-03	5.41E-04	1.73E-02	1.33E-02	1.95E-03	3.41E-03
372632.53	3756752.34	Fenceline	6.60E-02	1.57E-04	4.69E-02	1.33E-01	4.11E-04	1.33E-02	6.79E-04	2.01E-02	1.52E-02	2.35E-03	4.04E-03
372634.59	3756846.76	Fenceline	6.36E-02	1.75E-04	5.21E-02	1.82E-01	4.17E-04	1.28E-02	6.75E-04	2.04E-02	1.55E-02	2.37E-03	4.08E-03
372634.70	3757211.58	Fenceline	4.59E-02	2.08E-04	1.10E-01	9.34E-02	3.74E-04	9.18E-03	5.60E-04	1.83E-02	1.42E-02	2.04E-03	3.60E-03
372636.64	3756941.19	Fenceline	5.59E-02	1.88E-04	1.06E-01	1.13E-01	3.97E-04	1.12E-02	6.23E-04	1.94E-02	1.49E-02	2.22E-03	3.86E-03
372650.02	3757248.61	Fenceline	4.69E-02	2.05E-04	8.66E-02	9.54E-02	3.76E-04	9.38E-03	5.65E-04	1.83E-02	1.42E-02	2.06E-03	3.61E-03
372671.90	3757332.14	Fenceline	5.81E-02	1.69E-04	4.85E-02	1.18E-01	3.90E-04	1.17E-02	6.25E-04	1.91E-02	1.45E-02	2.20E-03	3.81E-03
372672.36	3756975.42	Fenceline	4.78E-02	1.74E-04	1.22E-01	9.70E-02	3.52E-04	9.57E-03	5.45E-04	1.72E-02	1.32E-02	1.95E-03	3.41E-03

Table 2-2.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2018 Mitigated Construction, Construction TAC Concentrations - Organics Only

X	Y	Receptor Type	acetaldehyde ($\mu g/m^3$)	acrolein ($\mu g/m^3$)	benzene ($\mu g/m^3$)	formaldehyde ($\mu g/m^3$)	methyl alcohol ($\mu g/m^3$)	methyl ethyl ketone ($\mu g/m^3$)	styrene ($\mu g/m^3$)	toluene ($\mu g/m^3$)	xylene, total ($\mu g/m^3$)	1,3-Butadiene ($\mu g/m^3$)	ethyl benzene ($\mu g/m^3$)
372672.57	3757018.04	Fenceline	4.62E-02	1.69E-04	1.45E-01	9.38E-02	3.41E-04	9.26E-03	5.28E-04	1.66E-02	1.28E-02	1.89E-03	3.30E-03
372692.91	3756588.53	Fenceline	5.71E-02	1.34E-04	4.14E-02	1.15E-01	3.54E-04	1.15E-02	5.86E-04	1.72E-02	1.31E-02	2.03E-03	3.48E-03
372694.60	3756751.91	Fenceline	1.57E-01	5.55E-04	3.67E-01	2.13E-01	1.29E-03	3.88E-02	1.92E-03	6.09E-02	4.82E-02	6.36E-03	1.21E-02
372697.78	3755368.97	Fenceline	2.93E-02	5.50E-05	3.59E-02	5.91E-02	1.69E-04	5.89E-03	2.88E-04	8.28E-03	6.21E-03	9.85E-04	1.68E-03
372704.41	3757417.13	Fenceline	8.37E-02	1.78E-04	5.15E-02	1.66E-01	5.02E-04	1.68E-02	8.42E-04	2.45E-02	1.85E-02	2.90E-03	4.95E-03
372725.34	3756505.44	Fenceline	5.16E-02	1.40E-04	4.39E-02	1.24E-01	3.84E-04	1.04E-02	5.33E-04	1.55E-02	1.20E-02	1.84E-03	3.18E-03
372730.58	3756678.55	Fenceline	5.88E-02	1.44E-04	4.16E-02	1.19E-01	3.70E-04	1.18E-02	6.08E-04	1.81E-02	1.37E-02	2.11E-03	3.63E-03
372739.22	3757507.15	Fenceline	1.22E-01	2.62E-04	5.98E-02	2.45E-01	7.32E-04	2.44E-02	1.23E-03	3.58E-02	2.70E-02	4.22E-03	7.22E-03
372756.67	3756751.48	Fenceline	5.57E-02	1.32E-04	4.20E-02	1.14E-01	3.56E-04	1.12E-02	5.86E-04	1.70E-02	1.29E-02	1.99E-03	3.42E-03
372768.35	3756973.59	Fenceline	4.13E-02	1.43E-04	1.04E-01	8.38E-02	2.98E-04	8.28E-03	4.65E-04	1.45E-02	1.12E-02	1.66E-03	2.89E-03
372770.71	3757658.89	Fenceline	1.76E-01	4.91E-04	8.93E-02	3.56E-01	1.16E-03	3.53E-02	1.87E-03	5.67E-02	4.32E-02	6.57E-03	1.13E-02
372773.23	3757598.18	Fenceline	1.57E-01	1.55E-04	3.67E-02	2.13E-01	1.29E-03	3.88E-02	1.92E-03	6.09E-02	4.82E-02	6.36E-03	1.21E-02
372774.32	3755367.98	Fenceline	3.14E-02	5.59E-05	2.78E-02	6.33E-02	1.79E-04	6.31E-03	3.06E-04	8.73E-03	6.54E-03	1.04E-03	1.77E-03
372774.75	3757745.62	Fenceline	1.77E-01	5.61E-04	1.16E-01	3.59E-01	1.23E-03	3.55E-02	1.94E-03	6.00E-02	4.58E-02	6.89E-03	1.19E-02
372784.40	3757635.25	Fenceline	1.68E-01	4.47E-05	1.22E-02	3.38E-01	1.23E-03	3.55E-02	1.94E-03	6.00E-02	4.58E-02	6.18E-03	1.06E-02
372822.71	3756505.12	Fenceline	5.08E-02	1.24E-04	3.85E-02	1.03E-01	3.19E-04	1.02E-02	5.25E-04	1.56E-02	1.18E-02	1.83E-03	3.14E-03
372839.80	3757745.93	Fenceline	1.66E-01	5.08E-04	9.75E-02	3.35E-01	1.13E-03	3.32E-02	1.80E-03	5.54E-02	4.23E-02	6.38E-03	1.10E-02
372850.87	3755366.99	Fenceline	3.32E-02	5.91E-05	3.25E-02	6.68E-02	1.89E-04	6.66E-03	3.22E-04	9.37E-03	6.84E-03	1.09E-03	1.86E-03
372864.35	3756971.76	Fenceline	3.66E-02	1.37E-04	9.06E-02	7.43E-02	2.72E-04	7.33E-03	4.21E-04	1.33E-02	1.02E-02	1.51E-03	2.64E-03
372904.85	3757746.24	Fenceline	1.55E-01	4.64E-04	8.18E-02	3.15E-01	1.05E-03	3.12E-02	1.68E-03	5.14E-02	3.92E-02	5.93E-03	1.03E-02
372910.27	3757752.13	Fenceline	1.55E-01	4.37E-04	7.77E-02	3.15E-01	1.05E-03	3.12E-02	1.68E-03	5.14E-02	3.92E-02	5.93E-03	1.03E-02
372919.43	3756436.58	Fenceline	4.66E-02	1.14E-04	3.49E-02	9.42E-02	2.93E-04	9.36E-03	4.82E-04	1.43E-02	1.08E-02	1.67E-03	2.87E-03
372920.09	3756504.79	Fenceline	4.81E-02	1.15E-04	3.54E-02	9.71E-02	3.00E-04	9.65E-03	4.95E-04	1.47E-02	1.11E-02	1.72E-03	2.95E-03
372927.41	3755366.00	Fenceline	3.46E-02	5.91E-05	3.40E-02	6.96E-02	1.97E-04	6.93E-03	3.35E-04	9.76E-03	7.12E-03	1.14E-03	1.94E-03
372927.86	3755465.33	Fenceline	3.73E-02	6.23E-05	4.47E-02	7.51E-02	2.08E-04	7.49E-03	3.60E-04	1.02E-02	7.61E-03	1.22E-03	2.07E-03
372928.32	3755564.67	Fenceline	3.97E-02	6.65E-05	5.02E-02	8.00E-02	2.22E-04	7.98E-03	3.83E-04	1.09E-02	8.11E-03	1.30E-03	2.21E-03
372928.77	3755664.00	Fenceline	4.17E-02	7.08E-05	5.57E-02	8.48E-02	2.36E-04	8.47E-03	4.06E-04	1.15E-02	8.59E-03	1.37E-03	2.34E-03
372929.23	3755763.34	Fenceline	4.31E-02	7.67E-05	4.64E-02	8.69E-02	2.45E-04	8.66E-03	4.20E-04	1.20E-02	8.97E-03	1.43E-03	2.43E-03
372947.75	3756971.61	Fenceline	3.24E-02	1.25E-04	8.09E-02	6.59E-02	2.45E-04	6.50E-03	3.76E-04	1.20E-02	9.21E-03	1.35E-03	2.37E-03
372992.82	3755761.76	Fenceline	4.11E-02	6.97E-05	5.28E-02	7.98E-02	2.33E-04	8.28E-03	3.98E-04	1.14E-02	8.50E-03	1.36E-03	2.31E-03
372995.87	3757731.75	Fenceline	1.43E-01	4.08E-04	6.46E-02	2.90E-01	9.52E-04	2.87E-02	1.53E-03	4.65E-02	3.54E-02	5.38E-03	9.30E-03
373004.43	3756435.35	Fenceline	4.45E-02	1.04E-04	3.32E-02	8.98E-02	2.75E-04	8.93E-03	4.55E-04	1.34E-02	1.02E-02	1.58E-03	2.70E-03
373031.15	3756971.45	Fenceline	3.04E-02	1.09E-04	7.58E-02	6.18E-02	2.23E-04	6.10E-03	3.46E-04	1.06E-02	8.36E-03	1.24E-03	2.16E-03
373056.40	3757760.18	Fenceline	3.85E-02	1.27E-04	9.05E-02	7.74E-02	2.83E-04	7.64E-03	4.38E-04	1.39E-02	1.06E-02	1.57E-03	2.75E-03
373057.59	3755829.92	Fenceline	3.76E-02	8.30E-05	2.91E-02	7.59E-02	2.28E-04	7.55E-03	3.81E-04	1.12E-02	8.42E-03	1.31E-03	2.25E-03
373058.75	3755894.60	Fenceline	3.62E-02	8.63E-05	2.94E-02	7.37E-02	2.22E-04	7.26E-03	3.72E-04	1.09E-02	8.20E-03	1.27E-03	2.20E-03
373077.68	3757731.38	Fenceline	1.33E-01	3.84E-04	6.06E-02	2.69E-01	8.74E-04	2.66E-02	1.41E-03	4.27E-02	3.25E-02	4.95E-03	8.55E-03
373089.44	3756434.13	Fenceline	4.15E-02	9.02E-05	3.10E-02	8.37E-02	2.50E-04	8.33E-03	4.19E-04	1.22E-02	9.23E-03	1.44E-03	2.47E-03
373118.11	3756991.19	Fenceline	2.86E-02	8.88E-05	7.28E-02	5.80E-02	1.97E-04	5.75E-03	3.13E-04	9.62E-03	7.35E-03	1.11E-03	1.92E-03
373137.84	3757759.39	Fenceline	3.47E-02	1.20E-04	8.58E-02	6.98E-02	2.64E-04	6.88E-03	3.56E-04	1.06E-02	7.98E-03	1.20E-03	2.09E-03
373138.33	3755829.37	Fenceline	3.32E-02	8.29E-05	2.70E-02	6.72E-02	2.10E-04	6.67E-03	3.45E-04	1.03E-02	7.79E-03	1.20E-03	2.06E-03
373138.82	3755899.35	Fenceline	3.14E-02	8.54E-05	2.74E-02	6.34E-02	2.05E-04	6.29E-03	3.32E-04	1.00E-02	7.61E-03	1.16E-03	2.01E-03
373159.49	3757773.01	Fenceline	1.24E-01	3.77E-04	5.62E-02	2.51E-01	8.08E-04	2.48E-02	1.31E-03	3.98E-02	3.02E-02	4.59E-03	7.91E-03
373174.45	3756432.91	Fenceline	3.78E-02	8.27E-05	2.85E-02	7.64E-02	2.29E-04	7.60E-03	3.83E-04	1.12E-02	8.44E-03	1.32E-03	2.26E-03
373179.17	3757023.66	Fenceline	2.70E-02	7.48E-05	7.87E-02	5.46E-02	1.78E-04	5.42E-03	2.87E-04	8.68E-03	6.60E-03	1.01E-03	1.74E-03
373213.14	3755758.34

Table 2-2.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2018 Mitigated Construction, Construction TAC Concentrations - Organics Only

X	Y	Receptor Type	acetaldehyde ($\mu g/m^3$)	acrolein ($\mu g/m^3$)	benzene ($\mu g/m^3$)	formaldehyde ($\mu g/m^3$)	methyl alcohol ($\mu g/m^3$)	methyl ethyl ketone ($\mu g/m^3$)	styrene ($\mu g/m^3$)	toluene ($\mu g/m^3$)	xylene, total ($\mu g/m^3$)	1,3-Butadiene ($\mu g/m^3$)	ethyl benzene ($\mu g/m^3$)
378900.00	3762500.00	Residential	1.91E-02	4.99E-05	2.08E-02	3.86E-02	1.23E-04	3.83E-03	2.00E-04	6.01E-03	4.56E-03	6.99E-04	1.20E-03
378900.00	3763500.00	Residential	1.15E-02	1.96E-05	6.19E-03	2.31E-02	6.44E-05	2.30E-03	1.11E-04	3.15E-03	2.35E-03	3.77E-04	6.40E-04
378900.00	3764500.00	Residential	4.84E-03	1.36E-05	4.35E-03	9.24E-03	3.09E-05	9.21E-04	4.98E-05	1.51E-03	1.12E-03	1.75E-04	3.02E-04
378902.85	3757271.45	Residential	6.89E-03	1.98E-05	7.45E-03	1.39E-02	4.59E-05	1.38E-03	7.38E-05	2.24E-03	1.71E-03	2.59E-04	4.48E-04
379900.00	3754500.00	Residential	5.72E-03	1.58E-05	5.33E-03	1.16E-02	3.76E-05	1.15E-03	6.08E-05	1.84E-03	1.40E-03	2.13E-04	3.68E-04
379900.00	3755500.00	Residential	4.91E-03	1.36E-05	4.34E-03	9.94E-03	3.20E-05	9.89E-04	5.24E-05	1.59E-03	1.21E-03	1.84E-04	3.18E-04
379900.00	3756500.00	Residential	4.63E-03	1.34E-05	5.93E-03	9.37E-03	3.10E-05	9.28E-04	4.97E-05	1.51E-03	1.15E-03	1.75E-04	3.03E-04
379900.00	3757500.00	Residential	6.49E-03	1.88E-05	5.50E-03	1.31E-02	4.34E-05	1.30E-03	6.97E-05	2.12E-03	1.62E-03	2.45E-04	4.24E-04
379900.00	3759500.00	Residential	5.28E-03	1.52E-05	5.20E-03	1.06E-02	3.50E-05	1.06E-03	5.75E-05	1.74E-03	1.32E-03	2.00E-04	3.48E-04
379900.00	3760500.00	Residential	5.40E-03	1.42E-05	4.29E-03	1.09E-02	3.48E-05	1.08E-03	5.68E-05	1.70E-03	1.29E-03	1.98E-04	3.41E-04
379900.00	3761500.00	Residential	4.19E-03	1.31E-05	4.42E-03	8.48E-03	2.89E-05	8.40E-04	4.59E-05	1.41E-03	1.08E-03	1.62E-04	2.81E-04
379900.00	3762500.00	Residential	6.75E-03	1.96E-05	5.30E-03	1.36E-02	4.51E-05	1.35E-03	7.24E-05	2.20E-03	1.68E-03	2.54E-04	4.40E-04
379900.00	3763500.00	Residential	1.90E-02	4.49E-05	1.66E-02	3.84E-02	1.18E-04	3.82E-03	1.95E-04	5.77E-03	4.36E-03	6.77E-04	1.16E-03
379900.00	3764500.00	Residential	6.54E-03	1.19E-05	4.49E-03	1.32E-02	3.74E-05	1.31E-03	6.40E-05	1.83E-03	1.37E-03	2.18E-04	3.71E-04
380900.00	3753500.00	Residential	3.44E-03	9.81E-06	4.74E-03	6.95E-03	2.23E-05	6.90E-04	3.68E-05	1.05E-03	8.51E-04	1.29E-04	2.33E-04
380900.00	3754500.00	Residential	3.93E-03	1.20E-05	4.23E-03	7.96E-03	2.69E-05	7.89E-04	4.28E-05	1.31E-03	1.00E-03	1.51E-04	2.62E-04
380900.00	3755500.00	Residential	3.98E-03	1.13E-05	4.15E-03	8.06E-03	2.64E-05	7.99E-04	4.26E-05	1.29E-03	9.84E-04	1.50E-04	2.59E-04
380900.00	3756500.00	Residential	3.24E-03	9.48E-06	4.14E-03	6.56E-03	2.10E-05	6.50E-04	3.46E-05	9.81E-04	7.46E-04	1.13E-04	2.04E-04
380900.00	3757500.00	Residential	5.06E-03	1.48E-05	4.48E-03	1.02E-02	3.40E-05	1.02E-03	5.45E-05	1.66E-03	1.27E-03	1.92E-04	3.32E-04
380900.00	3758500.00	Residential	1.81E-02	4.20E-05	1.77E-02	3.65E-02	1.12E-04	3.63E-03	1.85E-04	5.46E-03	4.12E-03	6.41E-04	1.10E-03
380900.00	3759500.00	Residential	7.66E-03	1.95E-05	5.24E-03	1.55E-02	4.79E-05	1.54E-03	7.81E-05	2.30E-03	1.75E-03	2.72E-04	4.70E-04
380900.00	3760500.00	Residential	5.07E-03	1.38E-05	4.05E-03	1.03E-02	3.32E-05	1.02E-03	5.37E-05	1.62E-03	1.23E-03	1.88E-04	3.25E-04
380900.00	3761500.00	Residential	3.89E-03	1.18E-05	3.69E-03	7.88E-03	2.65E-05	7.80E-04	4.23E-05	1.30E-03	9.90E-04	1.49E-04	2.59E-04
380900.00	3762500.00	Residential	4.30E-03	1.25E-05	3.79E-03	8.61E-03	2.91E-05	8.53E-04	4.67E-05	1.43E-03	1.08E-03	1.65E-04	2.85E-04
380900.00	3763500.00	Residential	1.00E-02	2.93E-05	1.27E-02	2.03E-02	6.73E-05	2.01E-03	1.08E-04	3.29E-03	2.51E-03	3.80E-04	6.57E-04
381900.00	3754500.00	Residential	3.49E-03	9.76E-06	3.34E-03	7.06E-03	2.30E-05	7.00E-04	3.72E-05	1.13E-03	8.56E-04	1.30E-04	2.25E-04
381900.00	3755500.00	Residential	3.24E-03	9.81E-06	4.74E-03	6.95E-03	2.23E-05	6.90E-04	3.68E-05	1.05E-03	8.51E-04	1.29E-04	2.33E-04
381900.00	3756500.00	Residential	3.06E-03	8.92E-06	3.24E-03	6.19E-03	2.05E-05	6.14E-04	3.29E-05	1.00E-03	7.64E-04	1.16E-04	2.00E-04
381900.00	3757500.00	Residential	4.25E-03	1.25E-05	3.79E-03	8.61E-03	2.86E-05	8.53E-04	4.58E-05	1.40E-03	1.07E-03	1.61E-04	2.79E-04
381900.00	3759500.00	Residential	1.06E-02	2.71E-05	7.04E-03	2.14E-02	6.62E-05	2.13E-03	1.02E-04	3.04E-03	2.32E-03	3.59E-04	6.21E-04
381900.00	3760500.00	Residential	3.79E-03	1.17E-05	3.92E-03	7.67E-03	2.60E-05	7.60E-04	4.14E-05	1.27E-03	9.70E-04	1.46E-04	2.53E-04
381900.00	3761500.00	Residential	3.41E-03	1.01E-05	3.35E-03	6.91E-03	2.30E-05	6.85E-04	3.68E-05	1.12E-03	8.56E-04	1.30E-04	2.24E-04
381900.00	3762500.00	Residential	3.58E-03	1.06E-05	3.88E-03	7.24E-03	2.42E-05	7.18E-04	3.87E-05	1.18E-03	9.01E-04	1.36E-04	2.36E-04
381900.00	3763500.00	Residential	4.18E-03	1.23E-05	3.74E-03	8.37E-03	2.78E-05	8.30E-04	4.45E-05	1.36E-03	1.04E-03	1.57E-04	2.72E-04
381900.00	3764500.00	Residential	1.29E-02	3.47E-05	1.61E-02	2.61E-02	8.38E-05	2.58E-03	1.36E-04	4.10E-03	3.11E-03	4.76E-04	8.21E-04
382900.00	3753500.00	Residential	3.11E-03	8.80E-06	2.47E-03	6.29E-03	2.06E-05	6.24E-04	3.32E-05	1.01E-03	7.77E-04	1.17E-04	2.02E-04
382900.00	3754500.00	Residential	2.77E-03	7.84E-06	2.20E-03	5.61E-03	1.81E-05	5.57E-04	2.94E-05	8.99E-04	6.78E-04	1.04E-04	1.80E-04
382900.00	3755500.00	Residential	1.97E-03	5.81E-06	1.96E-03	3.99E-03	1.33E-05	3.95E-04	2.13E-05	6.48E-04	4.94E-04	7.49E-05	1.30E-04
382900.00	3756500.00	Residential	2.38E-03	7.15E-06	2.48E-03	4.83E-03	1.62E-05	4.78E-04	2.58E-05	7.90E-04	6.03E-04	9.11E-05	1.58E-04
382900.00	3757500.00	Residential	3.42E-03	1.01E-05	3.47E-03	7.49E-03	2.51E-05	7.41E-04	4.00E-05	1.22E-03	9.29E-04	1.40E-04	2.43E-04
382900.00	3758500.00	Residential	1.15E-02	2.67E-05	1.47E-02	2.33E-02	7.11E-05	2.32E-03	1.18E-04	3.48E-03	2.63E-03	4.08E-04	7.00E-04
382900.00	3759500.00	Residential	1.15E-02	2.65E-05	5.70E-03	2.31E-02	7.06E-05	2.30E-03	1.17E-04	3.45E-03	2.61E-03	4.05E-04	6.95E-04
382900.00	3760500.00	Residential	3.68E-02	8.31E-05	3.47E-02	7.49E-02	2.31E-04	7.46E-03	3.81E-04	1.12E-02	8.50E-03	1.32E-03	2.26E-03
382900.00	3761500.00	Residential	4.25E-03	1.11E-05	3.38E-03	8.59E-03	2.73E-05	8.53E-04	4.46E-05	1.34E-03	1.01E-03	1.56E-04	2.68E-04
382900.00	3762500.00	Residential	3.36E-03	1.00E-05	3.26E-03	6.81E-03	2.27E-05	6.75E-04	3.64E-05	1.11E-03	8.47E-04	1.28E-04	2.22E-04
382900.00	3763500.00	Residential	3.78E-03	1.12E-05	3.77E-03	7.56E-03	2.52E-05	7.50E-04	4.08E-05	1.25E-03	9.54E-04	1.44E-04	2.50E-04
382900.00	3764500.00	Residential	3.93E-03	1.22E-05	3.63E-03	7.96E-03	2.70E-05	7.88E-04	4.29E-05	1.32E-03	1.01E-03	1.52E-04	2.63E-04
383900.00	3753500.00	Residential	1.96E-03	5.49E-06	1.94E-03	3.97E-03	1.30E-05	3.94E-04	2.09E-05	6.33E-04	4.82E-04	7.34E-05	1.27E-04
383900.00	3754500.00	Residential	1.76E-03	5.27E-06	1.85E-03	3.62E-03	1.20E-05	3.59E-04	1.93E-05	5.86E-04	4.49E-04	6.87E-05	1.18E-04
383900.00	3755500.00	Residential	1.73E-03	5.06E-06	1.65E-03	3.51E-03	1.16E-05	3.48E-04	1.87E-05	5.69E-04	4.33E-04	6.57E-05	1.14E-04
383900.00	3756500.00	Residential	2.06E-03	6.03E-06	2.09E-03	4.18E-03	1.39E-05	4.14E-04	2.22E-05	6.77E-04	5.16E-04	7.82E-05	1.35E-04
383900.00	3757500.00	Residential	3.01E-03	8.91E-06	3.08E-03	6.00E-03	2.00E-05	5.96E-04	3.20E-05	9.78E-04	7.44E-04	1.13E-04	1.96E-04
383900.00	3762500.00	Residential	2.96E-03	8.59E-06	3.08E-03	6.00E-03	1.98E-05	5.94E-04	3.18E-05	9.69E-04	7.38E-04	1.12E-04	1.94E-04
383900.00	3763500.00	Residential	3.07E-03	9.05E-06	3.32E-03	6.21E-03	2.07E-05	6.15E-04	3.31E-05	1.01E-03	7.70E-04	1.17E-04	2.02E-04
383900.00	3764500.00	Residential	3.66E-03	1.08E-05	3.47E-03	7.48E-03	2.49E-05	7.41E-04	4.00E-05	1.22E-03	9.29E-04	1.40E-04	2.43E-04
384900.00	3753500.00	Residential	1.59E-03	4.61E-06	1.66E-03	3.22E-03	1.07E-05	3.20E-04	1.71E-05	5.21E-04	3.97E-04	6.02E-05	1.04E-04
384900.00	3754500.00	Residential	1.54E-03	4.48E-06	1.60E-03	3.12E-03	1.03E-05	3.09E-04	1.66E-05	5.04E-04	3.84E-04	5.83E-05	1.01E-04
384900.00	3755500.00	Residential	1.66E-03	4.68E-06	1.68E-03	3.23E-03	1.07E-05	3.20E-04	1.72E-05	5.24E-04	4.00E-04	6.06E-05	1.05E-04
384900.00	3756500.00	Residential	1.90E-03	5.58E-06	1.89E-03	3.85E-03	1.28E-05	3.81E-04	2.05E-05	6.25E-04	4.76E-04	7.21E-05	1.25E-04
384900.00	3757500.00	Residential	2.37E-03	7.74E-06	2.33E-03	4.80E-03	1.66E-05	4.75E-04	2.62E-05	8.13E-04	6.22E-04	9.31E-05	1.62E-04
384900.00	3758500.00	Residential	7.36E-03	2.08E-05	5.36E-03	1.46E-02	4.91E-05	1.44E-03	7.44E-05	2.19E-03	1.66E-03	2.49E-04	4.31E-04
384900.00	3759500.00	Residential	1.23E-02	2.85E-05	7.56E-03	2.48E-02	7.59E-05	2.47E-03	1.26E-04	3.71E-03	2.80E-03	4.36E-04	7.47E-04
384900.00	3760500.00	Residential	2.96E-03	8.79E-06	3.02E-03	5.99E-03	2.00E-05	5.94E-04	3.20E-05	9.77E-04	7.45E-04	1.13E-04	1.95E-04
384900.00	3761500.00	Residential	3.12E-03	9.55E-06	3.61E-03	6.32E-03	2.13E-05	6.26E-04	3.40E-05	1.04E-03	7.96E-04	1.20E-04	2.08E-04
384900.00	3762500.00	Residential	2.87E-03	8.36E-06	2.61E-03	5.81E-03	1.92E-05	5.76E-04	3.09E-05	9.41E-04	7.17E-04	1.09E-04	1.88E-04
384900.00	3763500.00	Residential	2.87E-03	8.37E-06	2.88E-03	5.81E-03	1.92E-05	5.76E-04	3.09E-05	9.41E-04	7.17E-04	1.09E-04	1.88E-04
384900.00	3764500.00	Residential	3.36E-03	9.85E-06	3.28E-03	6.69E-03	2.22E-05	6.63E-04	3.58E-05	1.09E-03	8.32E-04	1.26E-04	2.18E-04
371641.00	3759983.00	Commercial	2.28E-01	5.92E-04	7.87E-01	1.48E-01	5.97E-03	1.66E-02	8.53E-04	2.53E-02	1.95E-02	2.98E-03	5.09E-03
371741.00	3759983.00	Commercial	1.77E-01	5.29E-04	6.70E-01	3.58E-01	1.20E-03	3.54E-02	1.91E-03	5.85E-02	4.46E-02	6.75E-03	1.17E-02
371841.00	3759983.00	Commercial	1.53E-01	4.12E-04	5.53E-01	3.10E-01	9.97E-04	3.07E-02	1.62E-03	4.87E-02	3.70E-02	5.66E-03	9.76E-03
371941.00	3759983.00	Commercial	2.05E-01	3.30E-04	4.71E-01	4.12E-01	1.15E-03	4.11E-02	1.96E-03	5.54E-02	4.13E-02	6.65E-03	1.13E-02
371941.00	3757683.00	Commercial	4.45E-01	2.27E-03	2.58E-01	9.09E-01	3.86E-03	8.91E-02	5.66E-03	1.88E-01	1.47E-01	2.09E-02	3.69E-02
372041.00	3756983.00	Commercial	1.87E-01	2.69E-04	3.89E-01	3.76E-01	1.00E-03	3.75E-02	1.76E-03	4.91E-02	3.65E-02	5.93E-03	1.00E-02
372141.00	3756983.00	Commercial	1.30E-01	2.24E-04	3.13E-01	2.61E-01	7.34E-04	2.62E-02	1.26E-03	3.59E-02	2.68E-02	4.29E-03	7.26E-03
372241.00	3756983.00	Commercial	1.17E-01	1.90E-04	2.61E-01	2.35E-01	6.47E-04	2.34E-02	1.12E-03	3.16E-02	2.36E-02	3.80E-03	6.44E-03
372341.00	3756983.00	Commercial	1.02E-01	1.63E-04	2.19E-01	2.04E-01	5.61E-04	2.04E-02	9.74E-04	2.74E-02	2.05E-02	3.30E-03	5.58E-03
372441.00	3756983.00	Commercial	8.25E-02	2.01E-04	1.85E-01	1.67E-01	5.18E-04	1.66E-02	8.53E-04	2.53E-02	1.93E-02	2.96E-03	5.09E-03
372541.00	3756983.00	Commercial	6.51E-02	2.16E-04	1.57E-01	1.32E-01	4.60E-04	1.30E-02	7.24E-04	2.25E-02	1.72E-02	2.57E-03	4.47E-03
372641.00	3756983.00	Commercial	5.08E-02	1.88E-04	1.33E-01	1.03E-01	3.77E-04	1.02E-02	5.82E-04	1.84E-02	1.42E-02	2.09E-03	3.65E-03

Table 2-2.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2018 Mitigated Construction, Construction TAC Concentrations - Organics Only

X	Y	Receptor Type	acetaldehyde ($\mu g/m^3$)	acrolein ($\mu g/m^3$)	benzene ($\mu g/m^3$)	formaldehyde ($\mu g/m^3$)	methyl alcohol ($\mu g/m^3$)	methyl ethyl ketone ($\mu g/m^3$)	styrene ($\mu g/m^3$)	toluene ($\mu g/m^3$)	xylene, total ($\mu g/m^3$)	1,3-Butadiene ($\mu g/m^3$)	ethyl benzene ($\mu g/m^3$)
373241.00	3756983.00	Commercial	2.58E-02	7.11E-05	6.04E-02	5.22E-02	1.69E-04	5.17E-03	2.74E-04	8.27E-03	6.29E-03	9.60E-04	1.66E-03
373341.00	3756983.00	Commercial	2.36E-02	6.71E-05	5.40E-02	4.76E-02	1.56E-04	4.72E-03	2.52E-04	7.65E-03	5.82E-03	8.85E-04	1.53E-03
373441.00	3756983.00	Commercial	2.13E-02	6.29E-05	4.32E-02	4.32E-02	1.44E-04	4.28E-03	2.32E-04	7.05E-03	5.36E-03	8.14E-04	1.40E-03
373441.00	3757583.00	Commercial	8.12E-02	1.92E-04	4.12E-02	1.64E-01	5.05E-04	1.63E-02	8.35E-04	2.47E-02	1.87E-02	2.89E-03	4.97E-03
373441.00	3757683.00	Commercial	9.50E-02	2.36E-04	4.48E-02	1.92E-01	6.03E-04	1.90E-02	9.88E-04	2.99E-02	2.26E-02	3.44E-03	5.92E-03
373441.00	3757783.00	Commercial	9.97E-02	2.56E-04	4.86E-02	2.02E-01	6.34E-04	2.00E-02	1.05E-03	3.16E-02	2.40E-02	3.67E-03	6.33E-03
373441.00	3757883.00	Commercial	9.27E-02	2.55E-04	4.24E-02	1.88E-01	6.08E-04	1.86E-02	9.84E-04	2.97E-02	2.26E-02	3.45E-03	5.95E-03
373441.00	3757983.00	Commercial	7.55E-02	2.07E-04	3.79E-02	1.53E-01	4.95E-04	1.51E-02	8.01E-04	2.42E-02	1.84E-02	2.81E-03	4.84E-03
373541.00	3757583.00	Commercial	1.99E-02	6.88E-05	4.39E-02	4.00E-02	1.24E-04	4.00E-03	2.15E-04	6.56E-03	5.06E-03	7.75E-04	1.33E-03
373541.00	3757083.00	Commercial	2.43E-02	6.14E-05	6.85E-02	4.91E-02	1.54E-04	4.87E-03	2.53E-04	7.55E-03	5.72E-03	8.81E-04	1.52E-03
373541.00	3757183.00	Commercial	2.99E-02	7.40E-05	8.43E-02	6.05E-02	1.89E-04	6.01E-03	3.10E-04	9.23E-03	6.99E-03	1.08E-03	1.86E-03
373541.00	3757283.00	Commercial	3.71E-02	8.81E-05	8.11E-02	7.48E-02	2.33E-04	7.46E-03	3.82E-04	1.13E-02	8.54E-03	1.32E-03	2.27E-03
373541.00	3757383.00	Commercial	4.71E-02	1.08E-04	6.40E-02	9.52E-02	2.89E-04	9.46E-03	4.81E-04	1.42E-02	1.07E-02	1.66E-03	2.85E-03
373541.00	3757483.00	Commercial	6.06E-02	1.38E-04	4.62E-02	1.22E-01	3.72E-04	1.22E-02	6.18E-04	1.82E-02	1.37E-02	2.14E-03	3.66E-03
373541.00	3757583.00	Commercial	7.58E-02	1.78E-04	3.84E-02	1.53E-01	4.66E-04	1.52E-02	7.76E-04	2.29E-02	1.72E-02	2.68E-03	4.61E-03
373541.00	3757683.00	Commercial	8.81E-02	2.20E-04	4.21E-02	1.78E-01	5.57E-04	1.77E-02	9.15E-04	2.72E-02	2.06E-02	3.18E-03	5.47E-03
366455.27	3763213.67	Residential/Commercial	6.90E-03	1.73E-05	4.66E-03	1.40E-02	4.37E-05	1.39E-03	7.17E-05	2.14E-03	1.62E-03	2.50E-04	4.29E-04
366569.62	3763342.53	Residential/Commercial	5.60E-03	1.78E-05	6.80E-03	1.13E-02	3.55E-05	1.12E-03	5.82E-05	1.74E-03	1.32E-03	2.03E-04	3.48E-04
366671.31	3762769.21	Residential/Commercial	8.27E-03	1.99E-05	5.37E-03	1.67E-02	5.17E-05	1.66E-03	8.52E-05	2.53E-03	1.91E-03	2.96E-04	5.08E-04
367494.53	3758314.82	Residential/Commercial	2.57E-02	5.78E-05	2.21E-02	5.19E-02	1.57E-04	5.16E-03	2.61E-04	7.67E-03	5.79E-03	9.03E-04	1.55E-03
367575.16	3764000.80	Residential/Commercial	3.57E-02	8.98E-05	3.16E-02	7.22E-02	2.35E-04	7.18E-03	3.76E-04	1.10E-02	8.31E-03	1.33E-03	2.26E-03
367638.49	3757975.16	Residential/Commercial	2.67E-02	5.61E-05	2.58E-02	5.39E-02	1.60E-04	5.37E-03	2.68E-04	7.80E-03	5.87E-03	9.22E-04	1.58E-03
367728.62	3761967.19	Residential/Commercial	8.97E-03	2.29E-05	6.65E-03	1.81E-02	5.72E-05	1.80E-03	9.36E-05	2.80E-03	2.12E-03	3.26E-04	5.61E-04
367787.59	3759282.02	Residential/Commercial	2.58E-02	5.78E-05	2.84E-02	5.19E-02	1.57E-04	5.16E-03	2.61E-04	7.67E-03	5.79E-03	2.95E-04	1.75E-03
367831.34	3763245.91	Residential/Commercial	4.91E-03	1.29E-05	4.73E-03	9.92E-03	3.16E-05	9.85E-04	5.16E-05	1.55E-03	1.17E-03	1.80E-04	3.10E-04
367900.00	3758500.00	Residential/Commercial	2.35E-02	4.74E-05	3.90E-02	4.75E-02	1.39E-04	4.73E-03	2.34E-04	6.79E-03	5.10E-03	8.04E-04	1.37E-03
367926.08	3763311.16	Residential/Commercial	2.12E-02	5.03E-05	1.87E-02	4.60E-02	1.40E-04	4.58E-03	2.32E-04	6.79E-03	5.27E-03	1.34E-03	3.18E-04
367964.98	3758232.97	Residential/Commercial	3.24E-02	7.22E-05	3.19E-02	6.54E-02	1.97E-04	6.50E-03	3.29E-04	9.64E-03	7.28E-03	1.14E-03	1.94E-03
367976.37	3763336.74	Residential/Commercial	4.98E-03	1.35E-05	4.44E-03	1.01E-02	3.25E-05	1.00E-03	5.27E-05	1.59E-03	1.21E-03	1.85E-04	3.18E-04
367978.91	3758396.10	Residential/Commercial	2.47E-02	5.54E-05	2.36E-02	4.98E-02	1.50E-04	4.96E-03	2.50E-04	7.35E-03	5.54E-03	1.46E-03	2.36E-04
368188.78	3758591.47	Residential/Commercial	2.27E-02	4.83E-05	2.72E-02	4.57E-02	1.36E-04	4.55E-03	2.28E-04	6.65E-03	5.01E-03	7.85E-04	1.34E-03
368501.11	3761632.38	Residential/Commercial	6.59E-03	1.97E-05	6.71E-03	1.33E-02	4.46E-05	1.32E-03	7.13E-05	2.18E-03	1.66E-03	2.51E-04	4.35E-04
368505.45	3758571.22	Residential/Commercial	2.46E-02	5.41E-05	2.26E-02	4.97E-02	1.49E-04	4.95E-03	2.49E-04	7.30E-03	5.51E-03	8.60E-04	1.47E-03
368673.29	3761677.69	Residential/Commercial	6.62E-03	1.78E-05	6.70E-03	1.34E-02	4.29E-05	1.33E-03	6.97E-05	2.12E-03	1.62E-03	4.20E-04	4.20E-04
368693.42	3758359.47	Residential/Commercial	3.00E-02	5.93E-05	3.13E-02	6.06E-02	1.76E-04	6.03E-03	2.98E-04	8.61E-03	6.47E-03	1.02E-03	1.74E-03
368842.92	3761590.39	Residential/Commercial	2.56E-03	1.81E-05	6.80E-03	1.47E-02	4.60E-05	1.46E-03	7.54E-05	2.25E-03	1.75E-03	2.62E-04	4.51E-04
368869.11	3764097.89	Residential/Commercial	2.36E-02	5.18E-05	4.72E-03	4.73E-02	1.43E-04	4.72E-03	2.39E-04	6.97E-03	5.72E-03	8.74E-04	1.51E-03
368869.83	3765067.00	Residential/Commercial	3.90E-03	1.02E-05	3.85E-03	7.88E-03	2.51E-05	7.82E-04	4.09E-05	1.22E-03	9.29E-04	1.43E-04	2.46E-04
368969.99	3761647.20	Residential/Commercial	7.59E-03	1.95E-05	6.09E-03	1.53E-02	4.85E-05	1.52E-03	7.94E-05	2.37E-03	1.80E-03	2.77E-04	4.76E-04
368970.54	3754677.64	Residential/Commercial	2.41E-02	4.94E-05	3.31E-02	4.86E-02	1.42E-04	4.84E-03	2.39E-04	6.94E-03	5.22E-03	1.61E-03	2.47E-04
369007.11	3762513.11	Residential/Commercial	5.74E-03	1.59E-05	5.58E-03	1.16E-02	3.77E-05	1.15E-03	6.10E-05	1.85E-03	1.40E-03	2.14E-04	3.69E-04
369227.99	3762251.91	Residential/Commercial	5.93E-03	1.68E-05	5.55E-03	1.20E-02	3.93E-05	1.19E-03	6.34E-05	1.92E-03	1.46E-03	2.23E-04	3.84E-04
369242.37	3754695.81	Residential/Commercial	2.41E-02	4.94E-05	3.31E-02	4.86E-02	1.42E-04	4.84E-03	2.39E-04	6.94E-03	5.22E-03	1.61E-03	2.47E-04
369456.98	3762567.48	Residential/Commercial	5.89E-03	1.55E-05	6.06E-03	1.19E-02	3.80E-05	1.18E-03	6.19E-05	1.86E-03	1.41E-03	2.16E-04	3.73E-04
369504.04	3754702.08	Residential/Commercial	2.35E-02	6.44E-05	3.52E-02	4.76E-02	1.54E-04	4.72E-03	2.50E-04	7.53E-03	5.72E-03	8.74E-04	1.51E-03
369767.91	3761150.98	Residential/Commercial	2.76E-03	6.03E-06	2.64E-03	5.59E-03	1.78E-05	5.54E-04	2.90E-05	8.87E-04	6.68E-04	1.03E-04	1.78E-04
369809.34	3764567.65	Residential/Commercial	3.99E-03	1.09E-05	3.92E-03	8.06E-03	2.61E-05	8.00E-04	4.23E-05

Table 2-2.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2018 Mitigated Construction, Construction TAC Concentrations - Organics Only

X	Y	Receptor Type	acetaldehyde ($\mu g/m^3$)	acrolein ($\mu g/m^3$)	benzene ($\mu g/m^3$)	formaldehyde ($\mu g/m^3$)	methyl alcohol ($\mu g/m^3$)	methyl ethyl ketone ($\mu g/m^3$)	xylene ($\mu g/m^3$)	toluene ($\mu g/m^3$)	xylene, total ($\mu g/m^3$)	1,3 Butadiene ($\mu g/m^3$)	ethyl benzene ($\mu g/m^3$)
372941.00	3757783.00	Commercial	1.45E-01	4.39E-04	8.12E-02	2.94E-01	9.89E-04	2.92E-02	1.58E-03	4.83E-02	3.69E-02	5.57E-03	9.65E-03
372941.00	3757883.00	Commercial	1.15E-01	3.52E-04	9.58E-02	2.33E-01	7.86E-04	2.31E-02	1.25E-03	3.84E-02	2.93E-02	4.42E-03	7.66E-03
372941.00	3757983.00	Commercial	7.13E-02	2.06E-04	1.02E-01	1.48E-01	5.56E-04	1.47E-02	7.82E-04	2.37E-02	1.84E-02	2.74E-03	4.79E-03
373035.50	3755453.68	Commercial	3.72E-02	6.47E-05	4.57E-02	7.49E-02	2.10E-04	7.47E-03	3.61E-04	1.03E-02	7.69E-03	1.23E-03	2.09E-03
373035.50	3755652.82	Commercial	3.95E-02	7.38E-05	4.45E-02	7.96E-02	2.26E-04	7.93E-03	3.88E-04	1.11E-02	8.35E-03	1.32E-03	2.25E-03
373041.00	3757783.00	Commercial	1.34E-01	3.92E-04	6.33E-02	2.72E-01	9.00E-04	2.69E-02	1.44E-03	4.46E-02	3.36E-02	5.08E-03	8.79E-03
373041.00	3757883.00	Commercial	1.11E-01	3.32E-04	7.57E-02	2.25E-01	7.52E-04	2.23E-02	1.20E-03	3.68E-02	2.80E-02	4.24E-03	7.34E-03
373041.00	3757983.00	Commercial	7.58E-02	2.14E-04	8.54E-02	1.53E-01	5.02E-04	1.52E-02	8.09E-04	2.45E-02	1.87E-02	2.84E-03	4.91E-03
373141.00	3757783.00	Commercial	1.24E-01	3.52E-04	5.59E-02	2.51E-01	8.23E-04	2.49E-02	1.33E-03	4.02E-02	3.06E-02	4.66E-03	8.04E-03
373141.00	3757883.00	Commercial	1.07E-01	3.11E-04	5.96E-02	2.16E-01	7.15E-04	2.14E-02	1.15E-03	3.50E-02	2.66E-02	4.04E-03	6.99E-03
373141.00	3757983.00	Commercial	7.70E-02	2.17E-04	6.89E-02	1.56E-01	5.10E-04	1.55E-02	8.23E-04	2.49E-02	1.90E-02	2.89E-03	4.99E-03
373241.00	3757783.00	Commercial	1.15E-01	3.18E-04	5.18E-02	2.33E-01	7.58E-04	2.31E-02	1.22E-03	3.70E-02	2.81E-02	4.29E-03	7.40E-03
373241.00	3757883.00	Commercial	1.02E-01	2.91E-04	4.86E-02	2.06E-01	6.79E-04	2.05E-02	1.09E-03	3.32E-02	2.53E-02	3.84E-03	6.63E-03
373241.00	3757983.00	Commercial	7.72E-02	2.16E-04	5.46E-02	1.56E-01	5.10E-04	1.55E-02	8.23E-04	2.49E-02	1.90E-02	2.89E-03	4.99E-03
373247.31	3756833.85	Commercial	2.52E-02	8.46E-05	2.68E-02	5.13E-02	1.79E-04	5.07E-03	2.82E-04	8.77E-03	6.72E-03	1.00E-03	1.74E-03
373250.82	3756654.89	Commercial	2.54E-02	9.10E-05	2.37E-02	5.16E-02	1.86E-04	5.10E-03	2.89E-04	9.08E-03	6.97E-03	1.03E-03	1.80E-03
373258.92	3755458.54	Commercial	3.31E-02	6.93E-05	3.87E-02	6.67E-02	1.97E-04	6.64E-03	3.32E-04	9.65E-03	7.26E-03	1.14E-03	1.95E-03
373278.35	3755647.97	Commercial	3.00E-02	7.53E-05	2.64E-02	6.06E-02	1.90E-04	6.02E-03	3.12E-04	9.30E-03	7.04E-03	1.09E-03	1.87E-03
373341.00	3757783.00	Commercial	1.07E-01	2.90E-04	4.82E-02	2.17E-01	6.99E-04	2.15E-02	1.13E-03	3.42E-02	2.60E-02	3.97E-03	6.84E-03
373341.00	3757883.00	Commercial	9.74E-02	2.73E-04	4.51E-02	1.97E-01	6.43E-04	1.95E-02	1.04E-03	3.14E-02	2.39E-02	3.64E-03	6.29E-03
373341.00	3757983.00	Commercial	7.67E-02	2.15E-04	4.36E-02	1.55E-01	5.08E-04	1.54E-02	8.18E-04	2.47E-02	1.88E-02	2.86E-03	4.96E-03
373441.00	3757083.00	Commercial	2.57E-02	6.54E-05	7.53E-02	5.20E-02	1.64E-04	5.16E-03	2.68E-04	8.01E-03	6.07E-03	9.35E-04	1.61E-03
373441.00	3757183.00	Commercial	3.14E-02	7.78E-05	9.00E-02	6.34E-02	1.98E-04	6.29E-03	3.25E-04	9.68E-03	7.33E-03	1.13E-03	1.94E-03
373441.00	3757283.00	Commercial	3.87E-02	9.19E-05	1.08E-01	7.82E-02	2.41E-04	7.77E-03	3.98E-04	1.19E-02	9.04E-03	1.38E-03	2.37E-03
373441.00	3757383.00	Commercial	4.95E-02	1.13E-04	6.29E-02	1.00E-01	3.04E-04	9.94E-03	5.05E-04	1.49E-02	1.12E-02	1.75E-03	2.99E-03
373441.00	3757483.00	Commercial	6.44E-02	1.46E-04	4.45E-02	1.30E-01	3.95E-04	1.29E-02	6.56E-04	1.93E-02	1.46E-02	2.27E-03	3.89E-03
373900.00	3759500.00	Commercial	4.31E-02	9.97E-05	6.68E-02	5.14E-02	1.74E-04	8.65E-03	4.22E-04	1.21E-02	9.08E-03	1.39E-03	2.45E-03
373900.00	3762500.00	Commercial	1.07E-02	2.71E-05	1.02E-02	2.16E-02	6.81E-05	2.15E-03	1.12E-04	3.33E-03	2.52E-03	3.88E-04	6.68E-04
373900.00	3763500.00	Commercial	8.38E-03	2.70E-05	5.86E-03	1.70E-02	5.85E-05	1.68E-03	9.25E-05	2.86E-03	2.19E-03	3.28E-04	5.70E-04
373900.00	3763500.00	Commercial	1.34E-02	3.46E-05	1.18E-02	2.72E-02	8.55E-05	2.70E-03	1.40E-04	4.18E-03	3.17E-03	4.88E-04	8.39E-04
374900.00	3758500.00	Commercial	1.62E-02	4.89E-05	1.29E-02	3.29E-02	1.10E-04	3.26E-03	1.76E-04	5.39E-03	4.11E-03	6.21E-04	1.08E-03
375900.00	3754500.00	Commercial	1.01E-02	2.62E-05	8.04E-03	2.04E-02	6.48E-05	2.03E-03	1.06E-04	3.17E-03	2.40E-03	3.69E-04	6.35E-04
375900.00	3757500.00	Commercial	2.16E-02	5.01E-05	3.51E-02	4.36E-02	1.33E-04	4.33E-03	2.21E-04	6.51E-03	4.92E-03	7.64E-04	1.31E-03
375900.00	3758500.00	Commercial	2.28E-02	5.46E-05	1.55E-02	4.60E-02	1.42E-04	4.57E-03	2.35E-04	6.98E-03	5.27E-03	8.15E-04	1.40E-03
375900.00	3759500.00	Commercial	1.07E-02	3.51E-05	1.16E-02	2.17E-02	7.53E-05	2.15E-03	1.19E-04	3.68E-03	2.82E-03	4.21E-04	7.32E-04
376900.00	3753500.00	Commercial	8.52E-03	2.08E-05	5.81E-03	1.72E-02	5.35E-05	1.71E-03	8.81E-05	2.62E-03	1.98E-03	3.06E-04	5.28E-04
376900.00	3754500.00	Commercial	6.60E-03	1.57E-05	5.44E-03	1.13E-02	3.76E-05	1.12E-03	5.98E-05	1.81E-03	1.36E-03	2.10E-04	3.62E-04
376900.00	3757500.00	Commercial	1.30E-02	3.09E-05	2.83E-02	2.63E-02	8.11E-05	2.62E-03	1.34E-04	3.96E-03	3.00E-03	4.65E-04	7.98E-04
376900.00	3763500.00	Commercial	5.43E-03	1.70E-05	5.18E-03	1.10E-02	3.75E-05	1.09E-03	5.95E-05	1.83E-03	1.40E-03	2.11E-04	3.65E-04
377900.00	3758500.00	Commercial	3.27E-02	7.67E-05	1.59E-02	6.60E-02	2.02E-04	6.56E-03	3.35E-04	9.90E-03	7.48E-03	1.16E-03	1.99E-03
378900.00	3754500.00	Commercial	5.33E-03	1.38E-05	4.10E-03	1.08E-02	3.42E-05	1.07E-03	5.59E-05	1.67E-03	1.27E-03	1.95E-04	3.36E-04
378900.00	3761500.00	Commercial	5.37E-03	1.68E-05	4.83E-03	1.09E-02	3.70E-05	1.08E-03	5.88E-05	1.81E-03	1.38E-03	2.08E-04	3.61E-04
379900.00	3753500.00	Commercial	3.38E-03	9.78E-06	3.16E-03	6.83E-03	2.26E-05	6.77E-04	3.63E-05	1.10E-03	8.41E-04	1.28E-04	2.21E-04
379900.00	3758500.00	Commercial	2.39E-02	5.51E-05	1.67E-02	4.83E-02	1.47E-04	4.81E-03	2.45E-04	7.20E-03	5.44E-03	8.46E-04	1.45E-03
380900.00	3764500.00	Commercial	1.57E-02	3.31E-05	1.02E-02	3.16E-02	9.38E-05	3.15E-03	1.58E-04	4.59E-03	3.46E-03	5.42E-04	9.26E-04
381900.00	3753500.00	Commercial	3.86E-03	1.04E-05	2.86E-03	7.86E-03	2.52E-05	7.80E-04	4.10E-05	1.22E-03	9.30E-04	1.43E-04	2.47E-04
381900.00	3758500.00	Commercial	1.47E-02	3.39E-05	1.71E-02	2.96E-02	9.04E-05	2.95E-03	1.50E-04	4.42E-03	3.34E-03	5.19E-04	8.90E-04
383900.00	3758500.00	Commercial	9.19E-03	2.12E-05	1.20E-02	1.86E-02	5.66E-05	1.85E-03	9.39E-05	2.77E-03	2.09E-03	3.25E-04	5.57E-04
383900.00	3759500.00	Commercial	1.22E-02	2.85E-05	6.29E-03	2.48E-02	7.58E-05	2.46E-03	1.26E-04	3.70E-03	2.80E-03	4.35E-04	7.46E-04
383900.00	3760500.00	Commercial	3.20E-03	9.72E-06	3.02E-03	6.48E-03	2.18E-05	6.42E-04	3.48E-05	1.07E-03	8.14E-04	1.23E-04	2.13E-04
383900.00	3761500.00	Commercial	3.99E-03	1.08E-05	3.38E-03	8.08E-03	2.60E-05	8.02E-04	4.22E-05	1.27E-03	9.67E-04	1.48E-04	2.55E-04
368085.00	3755395.00	Residential	3.37E-02	7.09E-05	4.36E-02	6.79E-02	2.01E-04	6.76E-03	3.38E-04	9.84E-03	7.41E-03	1.16E-03	1.99E-03
368185.00	3755395.00	Residential	4.25E-02	8.41E-05	5.55E-02	8.58E-02	2.49E-04	8.54E-03	4.22E-04	1.22E-02	9.16E-03	1.45E-03	2.47E-03
368285.00	3755395.00	Residential	3.55E-02	7.28E-05	4.72E-02	7.17E-02	2.11E-04	7.14E-03	3.55E-04	1.03E-02	7.75E-03	1.22E-03	2.08E-03
368385.00	3755395.00	Residential	3.65E-02	7.64E-05	4.77E-02	7.37E-02	2.18E-04	7.34E-03	3.66E-04	1.07E-02	8.02E-03	1.26E-03	2.15E-03
368485.00	3755395.00	Residential	3.70E-02	7.95E-05	4.58E-02	7.48E-02	2.23E-04	7.44E-03	3.73E-04	1.09E-02	8.21E-03	1.29E-03	2.20E-03
368585.00	3755395.00	Residential	3.72E-02	8.21E-05	4.30E-02	7.52E-02	2.26E-04	7.48E-03	3.77E-04	1.10E-02	8.33E-03	1.30E-03	2.23E-03
368685.00	3755395.00	Residential	3.71E-02	8.88E-05	4.62E-02	7.49E-02	2.26E-04	7.45E-03	3.80E-04	1.12E-02	8.48E-03	1.32E-03	2.26E-03
368785.00	3755395.00	Residential	3.83E-02	9.00E-05	5.11E-02	7.74E-02	2.37E-04	7.69E-03	3.93E-04	1.16E-02	8.77E-03	1.36E-03	2.34E-03
368885.00	3755395.00	Residential	4.02E-02	9.24E-05	5.47E-02	8.12E-02	2.47E-04	8.07E-03	4.10E-04	1.21E-02	9.13E-03	1.42E-03	2.43E-03
368985.00	3755395.00	Residential	4.26E-02	9.36E-05	5.70E-02	8.48E-02	2.55E-04	8.43E-03	4.26E-04	1.25E-02	9.41E-03	1.47E-03	2.52E-03
369085.00	3755395.00	Commercial	4.37E-02	9.71E-05	6.05E-02	8.82E-02	2.66E-04	8.77E-03	4.43E-04	1.30E-02	9.80E-03	1.53E-03	2.62E-03
369185.00	3755395.00	Commercial	4.50E-02	1.06E-04	6.09E-02	9.09E-02	2.80E-04	9.04E-03	4.62E-04	1.37E-02	1.03E-02	1.60E-03	2.75E-03
369285.00	3755395.00	Residential	4.57E-02	1.14E-04	5.76E-02	9.24E-02	2.89E-04	9.18E-03	4.75E-04	1.42E-02	1.07E-02	1.65E-03	2.84E-03
369385.00	3755395.00	Residential	5.65E-02	1.63E-04	7.94E-02	1.14E-01	3.78E-04	1.13E-02	6.07E-04	1.89E-02	1.41E-02	2.13E-03	3.69E-03
369485.00	3755395.00	Residential	5.42E-02	1.84E-04	1.04E-01	1.10E-01	3.87E-04	1.09E-02	6.07E-04	1.89E-02	1.45E-02	2.16E-03	3.76E-03
369585.00	3755395.00	Residential	4.78E-02	1.68E-04	1.01E-01	9.71E-02	3.46E-04	9.59E-03	5.40E-04	1.69E-02	1.30E-02	1.93E-03	3.36E-03
369685.00	3755395.00	Residential/Commercial	4.42E-02	1.37E-04	7.79E-02	9.15E-02	3.08E-04	9.06E-03	4.91E-04	1.56E-02	1.16E-02	1.73E-03	3.00E-03
369785.00	3755395.00	Residential	4.61E-02	1.20E-04	6.82E-02	9.32E-02	2.96E-04	9.25E-03	4.83E-04	1.45E-02	1.10E-02	1.69E-03	2.90E-03
369885.00	3755395.00	Residential	4.61E-02	1.20E-04	6.56E-02	9.32E-02	2.96E-04	9.26E-03	4.83E-04	1.45E-02	1.10E-02	1.69E-03	2.90E-03
369985.00	3755395.00	Residential	3.74E-02	9.95E-05	6.12E-02	7.56E-02	2.42E-04	7.50E-03	3.94E-04	1.18E-02	8.99E-03	1.38E-03	2.37E-03
370085.00	3755395.00	Residential	3.50E-02	9.85E-05	5.73E-02	7.09E-02	2.32E-04	7.03E-03	3.74E-04	1.13E-02	8.62E-03	1.31E-03	2.27E-03
370185.00	3755395.00	Residential	3.73E-02	9.34E-05	4.87E-02	7.54E-02	2.36E-04	7.48E-03	3.88E-04	1.16E-02	8.76E-03	1.35E-03	2.32E-03
370285.00	3755395.00	Residential	4.76E-02	1.03E-04	6.15E-02	9.61E-02	2.87E-04	9.56E-03	4.81E-04	1.40E-02	1.06E-02	1.66E-03	2.83E-03
370377.81	3755313.33	Residential	4.75E-02	1.14E-04	6.84E-02	9.59E-02	2.97E-04	9.53E-03	4.90E-04	1.45E-02	1.10E-02	1.70E-03	2.92E-03
370477.81	3755313.33	Residential	4.39E-02	1.01E-04	5.95E-02	8.87E-02	2.70E-04	8.82E-03	4.48E-04	1.32E-02	9.97E-03	1.55E-03	2.66E-03
370577.81	3755313.33	Residential	6.28E-02	1.12E-04	7.98E-02	1.27E-01	3.57E-04	1.26E-02	6.13E-04	1.75E-02	1.31E-02	2.09E-03	3.55E-03
370677.81	3755313.33	Residential	8.09E-02	1.50E-04	1.12E-01	1.63E-01	4.65E-04	1.62E-02	7.94E-04	2.28E-02	1.71E-02	2.71E-03	4.61E-03
370777.81	3755313.33	Commercial	8.52E-02	1.72E-04	1.14E-01	1.72E-01	5.03E-04	1.71E-02	8.49E-04	2.46E-02	1.85E-02	2.91E-03	4.97E-03

Table 2-2.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2018 Mitigated Construction, Construction TAC Concentrations - Organics Only

X	Y	Receptor Type	acetaldehyde ($\mu g/m^3$)	acrolein ($\mu g/m^3$)	benzene ($\mu g/m^3$)	formaldehyde ($\mu g/m^3$)	methyl alcohol ($\mu g/m^3$)	methyl ethyl ketone ($\mu g/m^3$)	xylene ($\mu g/m^3$)	toluene ($\mu g/m^3$)	xylene, total ($\mu g/m^3$)	1,3 Butadiene ($\mu g/m^3$)	ethyl benzene ($\mu g/m^3$)
370877.81	3755313.33	Commercial	9.04E-02	1.67E-04	1.26E-01	1.82E-01	5.19E-04	1.82E-02	8.87E-04	2.54E-02	1.90E-02	3.03E-03	5.15E-03
370977.81	3755313.33	Commercial	7.13E-02	1.48E-04	8.83E-02	1.44E-01	4.24E-04	1.43E-02	7.14E-04	2.07E-02	1.56E-02	2.45E-03	4.16E-03
371077.81	3755313.33	Commercial	6.52E-02	1.47E-04	8.38E-02	1.32E-01	3.98E-04	1.31E-02	6.63E-04	1.95E-02	1.47E-02	2.29E-03	3.92E-03
371177.81	3755313.33	Commercial	5.39E-02	1.37E-04	6.79E-02	1.09E-01	3.43E-04	1.08E-02	5.62E-04	1.68E-02	1.27E-02	1.96E-03	3.37E-03
371277.81	3755313.33	Commercial	5.07E-02	1.22E-04	5.04E-02	1.02E-01	3.17E-04	1.02E-02	5.22E-04	1.56E-02	1.17E-02	1.81E-03	3.11E-03
371377.81	3755313.33	Commercial	4.51E-02	1.07E-04	3.48E-02	9.12E-02	2.80E-04	9.06E-03	4.63E-04	1.37E-02	1.04E-02	1.61E-03	2.76E-03
371477.81	3755313.33	Commercial	3.77E-02	9.85E-05	3.33E-02	7.62E-02	2.43E-04	7.57E-03	3.96E-04	1.19E-02	9.00E-03	1.38E-03	2.38E-03
371577.81	3755313.33	Commercial	3.01E-02	8.88E-05	3.17E-02	6.10E-02	2.03E-04	6.04E-03	3.25E-04	9.92E-03	7.56E-03	1.15E-03	1.98E-03
371677.81	3755313.33	Commercial	2.32E-02	7.77E-05	2.69E-02	4.70E-02	1.66E-04	4.65E-03	2.59E-04	8.05E-03	6.16E-03	9.20E-04	1.60E-03
371777.81	3755313.33	Commercial	1.99E-02	6.59E-05	2.51E-02	4.04E-02	1.41E-04	4.00E-03	2.21E-04	6.87E-03	5.26E-03	7.87E-04	1.37E-03
371871.82	3755232.57	Commercial	1.90E-02	5.18E-05	2.39E-02	3.84E-02	1.24E-04	3.81E-03	2.01E-04	6.07E-03	4.61E-03	7.04E-04	1.21E-03
371971.82	3755232.57	Commercial	2.98E-02	5.36E-05	2.72E-02	6.00E-02	1.70E-04	5.98E-03	2.91E-04	8.30E-03	6.22E-03	9.90E-04	1.68E-03
372071.82	3755232.57	Commercial	3.17E-02	5.52E-05	2.82E-02	6.39E-02	1.79E-04	6.37E-03	3.08E-04	8.76E-03	6.56E-03	1.05E-03	1.78E-03
372171.82	3755232.57	Commercial	1.60E-02	4.41E-05	2.41E-02	3.24E-02	1.05E-04	3.22E-03	1.70E-04	5.14E-03	3.91E-03	5.96E-04	1.03E-03
372271.82	3755232.57	Commercial	1.66E-02	3.98E-05	3.61E-02	3.22E-02	1.01E-04	3.19E-03	1.65E-04	4.93E-03	3.73E-03	5.75E-04	9.89E-04
372371.82	3755232.57	Commercial	1.65E-02	4.23E-05	4.85E-02	3.33E-02	1.05E-04	3.31E-03	1.72E-04	5.15E-03	3.91E-03	6.01E-04	1.03E-03
372471.82	3755232.57	Commercial	1.87E-02	4.63E-05	5.51E-02	3.78E-02	1.18E-04	3.75E-03	1.94E-04	5.77E-03	4.37E-03	6.74E-04	1.16E-03
372571.82	3755232.57	Commercial	2.16E-02	4.89E-05	5.42E-02	4.35E-02	1.32E-04	4.33E-03	2.20E-04	6.46E-03	4.87E-03	7.59E-04	1.30E-03
372671.82	3755232.57	Commercial	2.44E-02	5.07E-05	4.69E-02	4.93E-02	1.45E-04	4.91E-03	2.45E-04	7.11E-03	5.35E-03	8.41E-04	1.44E-03
372771.82	3755232.57	Commercial	2.72E-02	5.20E-05	3.68E-02	5.49E-02	1.58E-04	5.47E-03	2.69E-04	7.72E-03	5.80E-03	9.18E-04	1.56E-03
372871.82	3755232.57	Commercial	2.98E-02	5.36E-05	2.72E-02	6.00E-02	1.70E-04	5.98E-03	2.91E-04	8.30E-03	6.22E-03	9.90E-04	1.68E-03
372971.82	3755232.57	Commercial	3.17E-02	5.52E-05	2.82E-02	6.39E-02	1.79E-04	6.37E-03	3.08E-04	8.76E-03	6.56E-03	1.05E-03	1.78E-03

ug/m^3 = micrograms per cubic meter
Note: Shaded cells indicate locations where concentrations were highest within each land use category.

Table 2-2.2
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2019 Mitigated Construction, Construction TAC Concentrations - Particulates Only

		ammonium ($\mu g/m^3$)	arsenic ($\mu g/m^3$)	chlorine ($\mu g/m^3$)	copper ($\mu g/m^3$)	manganese ($\mu g/m^3$)	mercury ($\mu g/m^3$)	nickel ($\mu g/m^3$)	vanadium ($\mu g/m^3$)	sulfates ($\mu g/m^3$)
Commercial - Onsite	**Max Location**	**404**	**404**	**404**	**404**	**404**	**404**	**404**	**404**	**404**
Maximum Onsite Concentration-->		1.42E-02	6.57E-04	1.35E-01	5.13E-02	3.61E-02	5.89E-04	4.81E-03	1.11E-02	4.18E-01
Average Onsite Concentration-->		7.73E-03	3.53E-04	7.34E-02	3.00E-02	1.97E-02	3.16E-04	2.73E-03	6.07E-03	2.36E-01
Minimum Onsite Concentration-->		1.26E-03	4.95E-05	1.21E-02	8.73E-03	3.24E-03	4.23E-05	6.41E-04	1.05E-03	5.32E-02
Commercial - Offsite	**Max Location**	**813**	**852**	**852**	**813**	**852**	**852**	**813**	**852**	**813**
Maximum Offsite Concentration-->		1.16E-02	4.93E-04	1.10E-01	8.73E-02	2.88E-02	4.27E-04	6.11E-03	9.05E-03	5.32E-01
Average Offsite Concentration-->		1.69E-03	7.35E-05	1.70E-02	9.08E-03	4.40E-03	6.43E-05	7.33E-04	1.39E-03	6.53E-02
Minimum Offsite Concentration-->		8.58E-05	3.14E-06	7.74E-04	5.46E-04	2.06E-04	2.73E-06	4.11E-05	6.70E-05	3.44E-03
Residential	**Max Location**	**474**	**476**	**476**	**476**	**476**	**476**	**476**	**476**	**476**
Maximum Offsite Concentration-->		5.92E-03	2.14E-04	5.65E-02	4.32E-02	1.46E-02	1.82E-04	3.09E-03	4.78E-03	2.67E-01
Average Offsite Concentration-->		5.73E-04	2.20E-05	5.33E-03	3.35E-03	1.38E-03	1.93E-05	2.56E-04	4.43E-04	2.26E-02
Minimum Offsite Concentration-->		5.08E-05	1.98E-06	4.71E-04	3.16E-04	1.26E-04	1.72E-06	2.37E-05	4.05E-05	1.98E-03
CalEPA Acute REL		3200	0.2	210	100	0.17	0.6	0.2	30	120
Commercial - Onsite										
Onsite Maximum Acute Hazard-->		4.44E-06	3.29E-03	6.41E-04	5.13E-04	2.12E-01	9.82E-04	2.41E-02	3.70E-04	3.48E-03
Onsite Average Acute Hazard-->		2.42E-06	1.77E-03	3.50E-04	3.00E-04	1.16E-01	5.26E-04	1.36E-02	2.02E-04	1.96E-03
Onsite Minimum Acute Hazard-->		3.95E-07	2.47E-04	5.78E-05	8.73E-05	1.91E-02	7.05E-05	3.21E-03	3.51E-05	4.44E-04
Commercial - Offsite										
Offsite Maximum Acute Hazard-->		3.62E-06	2.46E-03	5.25E-04	8.73E-04	1.70E-01	7.11E-04	3.05E-02	3.02E-04	4.60E-03
Offsite Average Acute Hazard-->		5.28E-07	3.68E-04	8.09E-05	9.08E-05	2.59E-02	1.07E-04	3.67E-03	4.63E-05	5.45E-04
Offsite Minimum Acute Hazard-->		2.68E-08	1.57E-05	3.68E-06	5.46E-06	1.21E-03	4.55E-06	2.05E-04	2.23E-06	2.87E-05
Residential										
Offsite Maximum Acute Hazard-->		1.85E-06	1.07E-03	2.69E-04	4.32E-04	8.58E-02	3.04E-04	1.55E-02	1.59E-04	2.22E-03
Offsite Average Acute Hazard-->		1.79E-07	1.10E-04	2.54E-05	3.35E-05	8.13E-03	3.22E-05	1.28E-03	1.48E-05	1.89E-04
Offsite Minimum Acute Hazard-->		1.59E-08	9.88E-06	2.24E-06	3.16E-06	7.40E-04	2.86E-06	1.19E-04	1.35E-06	1.65E-05

Table 2-2.2
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2019 Mitigated Construction, Construction TAC Concentrations - Particulates Only

X	Y	Receptor Type	ammonium ($\mu g/m^3$)	arsenic ($\mu g/m^3$)	chlorine ($\mu g/m^3$)	copper ($\mu g/m^3$)	manganese ($\mu g/m^3$)	mercury ($\mu g/m^3$)	nickel ($\mu g/m^3$)	vanadium ($\mu g/m^3$)	sulfates ($\mu g/m^3$)
369131.40	3758945.42	Residential/Commercial	8.78E-04	2.88E-05	7.99E-03	7.03E-03	2.09E-03	2.44E-05	4.86E-04	6.99E-04	4.16E-02
370190.78	3758848.26	Residential/Commercial	9.55E-04	2.93E-05	7.82E-03	5.35E-03	1.93E-03	2.66E-05	3.95E-04	6.29E-04	3.80E-02
370747.03	3763937.58	Residential/Commercial	1.29E-04	4.61E-06	1.12E-03	7.46E-04	2.94E-04	4.08E-06	5.60E-05	9.48E-05	4.84E-03

Table 2-2.2
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2019 Mitigated Construction,
Construction TAC Concentrations - Particulates Only

X	Y	Receptor Type	ammonium ($\mu g/m^3$)	arsenic ($\mu g/m^3$)	chlorine ($\mu g/m^3$)	copper ($\mu g/m^3$)	manganese ($\mu g/m^3$)	mercury ($\mu g/m^3$)	nickel ($\mu g/m^3$)	vanadium ($\mu g/m^3$)	sulfates ($\mu g/m^3$)
366900.00	3756500.00	Fenceline	5.07E-04	2.15E-05	5.07E-03	3.30E-03	1.36E-03	1.84E-05	2.50E-04	4.35E-04	2.07E-02
366913.34	3756494.23	Fenceline	5.12E-04	2.16E-05	5.11E-03	3.36E-03	1.37E-03	1.85E-05	2.54E-04	4.39E-04	2.10E-02
366921.75	3757860.58	Fenceline	5.39E-04	2.25E-05	5.13E-03	2.92E-03	1.36E-03	1.98E-05	2.32E-04	4.32E-04	1.98E-02
366952.02	3756405.68	Fenceline	5.21E-04	2.10E-05	5.06E-03	3.54E-03	1.36E-03	1.80E-05	2.62E-04	4.39E-04	2.16E-02
366982.97	3757895.00	Fenceline	5.38E-04	2.28E-05	5.21E-03	3.13E-03	1.40E-03	1.98E-05	2.44E-04	4.45E-04	2.05E-02
366990.71	3756317.13	Fenceline	5.49E-04	2.16E-05	5.20E-03	3.61E-03	1.38E-03	1.84E-05	2.67E-04	4.44E-04	2.24E-02
367029.39	3756228.58	Fenceline	6.46E-04	2.39E-05	5.82E-03	3.85E-03	1.52E-03	2.10E-05	2.90E-04	4.91E-04	2.50E-02
367044.19	3757929.41	Fenceline	5.73E-04	2.36E-05	5.41E-03	3.30E-03	1.45E-03	2.06E-05	2.56E-04	4.64E-04	2.15E-02
367068.08	3756140.03	Fenceline	7.66E-04	3.08E-05	7.26E-03	4.34E-03	1.90E-03	2.70E-05	3.37E-04	6.06E-04	2.92E-02
367106.77	3756051.48	Fenceline	8.65E-04	3.49E-05	8.58E-03	5.15E-03	2.29E-03	3.22E-05	4.02E-04	7.30E-04	3.38E-02
367145.45	3755962.93	Fenceline	9.17E-04	4.10E-05	9.31E-03	5.44E-03	2.50E-03	3.54E-05	4.28E-04	7.92E-04	3.57E-02
367163.35	3757937.75	Fenceline	6.45E-04	2.68E-05	6.33E-03	3.76E-03	1.65E-03	2.33E-05	2.93E-04	5.26E-04	2.56E-02
367184.14	3755874.38	Fenceline	9.12E-04	4.09E-05	9.18E-03	5.03E-03	2.45E-03	3.55E-05	4.05E-04	7.72E-04	3.43E-02
367222.83	3755785.83	Fenceline	8.54E-04	3.76E-05	8.44E-03	4.82E-03	2.27E-03	3.27E-05	3.83E-04	7.19E-04	3.21E-02
367261.51	3755697.28	Fenceline	7.87E-04	3.57E-05	8.10E-03	4.46E-03	2.14E-03	3.09E-05	3.58E-04	6.78E-04	3.06E-02
367284.84	3757912.25	Fenceline	5.57E-04	2.41E-05	5.62E-03	3.56E-03	1.51E-03	2.07E-05	2.72E-04	4.82E-04	2.26E-02
367300.20	3755608.73	Fenceline	8.27E-04	3.43E-05	8.06E-03	4.99E-03	2.13E-03	2.97E-05	3.84E-04	6.82E-04	3.29E-02
367338.88	3755520.18	Fenceline	9.02E-04	3.73E-05	8.80E-03	5.75E-03	2.36E-03	3.21E-05	4.35E-04	7.56E-04	3.64E-02
367348.39	3757912.82	Fenceline	5.62E-04	2.44E-05	5.70E-03	3.62E-03	1.53E-03	2.09E-05	2.77E-04	4.88E-04	2.32E-02
367377.57	3755431.63	Fenceline	9.44E-04	4.02E-05	9.31E-03	5.73E-03	2.49E-03	3.47E-05	4.43E-04	7.94E-04	3.72E-02
367401.92	3757982.92	Fenceline	5.55E-04	2.49E-05	5.73E-03	3.43E-03	1.53E-03	2.14E-05	2.67E-04	4.87E-04	2.23E-02
367464.88	3755430.72	Fenceline	9.73E-04	4.13E-05	9.53E-03	5.67E-03	2.54E-03	3.59E-05	4.43E-04	8.07E-04	3.76E-02
367498.60	3757937.52	Fenceline	5.70E-04	2.52E-05	5.84E-03	3.67E-03	1.56E-03	2.16E-05	2.76E-04	4.98E-04	2.32E-02
367539.80	3757864.76	Fenceline	6.00E-04	2.62E-05	6.11E-03	3.89E-03	1.64E-03	2.24E-05	2.97E-04	5.24E-04	2.47E-02
367552.20	3755429.80	Fenceline	9.86E-04	4.17E-05	9.57E-03	5.46E-03	2.53E-03	3.65E-05	4.33E-04	8.02E-04	3.71E-02
367596.95	3757879.64	Fenceline	6.02E-04	2.62E-05	6.11E-03	3.87E-03	1.64E-03	2.24E-05	2.96E-04	5.24E-04	2.47E-02
367628.79	3757855.59	Fenceline	6.17E-04	2.68E-05	6.27E-03	3.96E-03	1.68E-03	2.30E-05	3.04E-04	5.37E-04	2.53E-02
367639.51	3755428.89	Fenceline	9.92E-04	4.15E-05	9.47E-03	5.15E-03	2.48E-03	3.65E-05	4.14E-04	7.85E-04	3.62E-02
367696.39	3757845.44	Fenceline	6.29E-04	2.73E-05	6.39E-03	4.04E-03	1.71E-03	2.34E-05	3.09E-04	5.47E-04	2.58E-02
367700.81	3758169.46	Fenceline	6.57E-04	2.76E-05	6.77E-03	4.32E-03	1.75E-03	2.36E-05	3.27E-04	5.62E-04	2.87E-02
367707.57	3757896.37	Fenceline	6.07E-04	2.64E-05	6.14E-03	3.85E-03	1.64E-03	2.26E-05	2.96E-04	5.25E-04	2.50E-02
367726.83	3755427.97	Fenceline	9.86E-04	4.08E-05	9.26E-03	4.87E-03	2.42E-03	3.62E-05	3.97E-04	7.63E-04	3.51E-02
367734.79	3758105.67	Fenceline	6.78E-04	2.95E-05	7.05E-03	4.50E-03	1.86E-03	2.52E-05	3.43E-04	5.97E-04	2.92E-02
367743.72	3758010.21	Fenceline	6.70E-04	2.94E-05	6.86E-03	4.32E-03	1.84E-03	2.52E-05	3.31E-04	5.87E-04	2.78E-02
367785.33	3758200.53	Fenceline	9.24E-04	2.98E-05	8.18E-03	6.59E-03	2.09E-03	2.58E-05	4.65E-04	6.92E-04	4.14E-02
367814.14	3755427.06	Fenceline	9.74E-04	4.04E-05	9.24E-03	5.28E-03	2.45E-03	3.55E-05	4.18E-04	7.77E-04	3.56E-02
367830.31	3758150.13	Fenceline	7.65E-04	2.97E-05	7.56E-03	5.74E-03	2.00E-03	2.51E-05	4.14E-04	6.54E-04	3.51E-02
367839.73	3758178.15	Fenceline	9.71E-04	3.12E-05	8.58E-03	7.02E-03	2.20E-03	2.69E-05	4.94E-04	7.30E-04	4.37E-02
367874.18	3755433.41	Fenceline	9.70E-04	4.02E-05	9.28E-03	5.46E-03	2.46E-03	3.51E-05	4.28E-04	7.81E-04	3.68E-02
367912.80	3758112.41	Fenceline	1.02E-03	3.49E-05	9.27E-03	7.22E-03	2.40E-03	3.01E-05	5.17E-04	7.89E-04	4.59E-02
367934.21	3755439.76	Fenceline	9.60E-04	3.98E-05	9.26E-03	5.56E-03	2.45E-03	3.46E-05	4.33E-04	7.80E-04	3.71E-02
368001.74	3755450.16	Fenceline	9.63E-04	3.95E-05	9.27E-03	5.63E-03	2.44E-03	3.44E-05	4.36E-04	7.80E-04	3.75E-02
368067.33	3758044.68	Fenceline	1.20E-03	3.97E-05	1.09E-02	9.00E-03	2.81E-03	3.40E-05	6.31E-04	9.32E-04	5.51E-02
368069.28	3755460.56	Fenceline	9.82E-04	3.91E-05	9.37E-03	5.65E-03	2.43E-03	3.42E-05	4.36E-04	7.75E-04	3.78E-02
368136.81	3755470.96	Fenceline	9.95E-04	3.92E-05	9.28E-03	5.70E-03	2.44E-03	3.44E-05	4.40E-04	7.79E-04	3.82E-02
368139.37	3758014.68	Fenceline	9.73E-04	3.62E-05	9.46E-03	8.00E-03	2.54E-03	3.02E-05	5.61E-04	8.42E-04	4.63E-02
368217.94	3755478.99	Fenceline	1.03E-03	4.01E-05	9.49E-03	5.73E-03	2.48E-03	3.53E-05	4.44E-04	7.92E-04	3.89E-02
368226.20	3757984.68	Fenceline	1.35E-03	4.31E-05	1.14E-02	1.04E-02	3.11E-03	3.66E-05	7.19E-04	1.04E-03	5.50E-02
368310.20	3755477.83	Fenceline	1.03E-03	4.04E-05	9.54E-03	5.73E-03	2.50E-03	3.56E-05	4.45E-04	7.96E-04	3.91E-02
368312.17	3757967.29	Fenceline	1.40E-03	4.73E-05	1.28E-02	1.08E-02	3.36E-03	4.01E-05	7.58E-04	1.12E-03	6.49E-02
368386.06	3757966.42	Fenceline	1.33E-03	4.64E-05	1.21E-02	8.82E-03	3.10E-03	4.03E-05	6.41E-04	1.01E-03	5.73E-02
368402.45	3757967.67	Fenceline	1.05E-03	4.09E-05	9.78E-03	5.87E-03	2.57E-03	3.62E-05	4.56E-04	8.26E-04	4.06E-02
368459.96	3757965.55	Fenceline	1.20E-03	4.23E-05	1.08E-02	6.97E-03	2.71E-03	3.75E-05	5.24E-04	8.76E-04	4.85E-02
368494.71	3755475.51	Fenceline	1.05E-03	4.07E-05	9.74E-03	6.13E-03	2.55E-03	3.57E-05	4.69E-04	8.18E-04	4.07E-02
368533.85	3757964.68	Fenceline	1.18E-03	4.15E-05	1.12E-02	9.29E-03	2.93E-03	3.50E-05	6.52E-04	9.70E-04	5.57E-02
368533.98	3757935.39	Fenceline	1.12E-03	4.04E-05	1.07E-02	8.09E-03	2.75E-03	3.46E-05	5.82E-04	9.02E-04	5.12E-02
368586.97	3755474.35	Fenceline	1.05E-03	4.13E-05	9.95E-03	6.05E-03	2.64E-03	3.58E-05	4.82E-04	8.52E-04	4.26E-02
368594.27	3757948.47	Fenceline	1.29E-03	4.48E-05	1.22E-02	1.09E-02	3.26E-03	3.73E-05	7.55E-04	1.09E-03	6.30E-02
368657.87	3757978.44	Fenceline	1.67E-03	5.05E-05	1.43E-02	1.22E-02	3.65E-03	4.37E-05	8.50E-04	1.22E-03	7.56E-02
368679.22	3755473.19	Fenceline	1.08E-03	4.18E-05	1.00E-02	6.65E-03	2.66E-03	3.64E-05	5.01E-04	8.56E-04	4.26E-02
368710.99	3758011.46	Fenceline	1.45E-03	4.26E-05	1.20E-02	9.23E-03	2.96E-03	3.80E-05	6.56E-04	9.78E-04	6.13E-02
368748.06	3758034.51	Fenceline	1.24E-03	4.10E-05	1.12E-02	9.40E-03	2.92E-03	3.50E-05	6.58E-04	9.68E-04	5.71E-02
368771.48	3755472.04	Fenceline	1.08E-03	4.22E-05	9.99E-03	6.71E-03	2.68E-03	3.66E-05	5.05E-04	8.64E-04	4.24E-02
368806.72	3758070.98	Fenceline	1.23E-03	3.95E-05	1.10E-02	9.56E-03	2.86E-03	3.36E-05	6.62E-04	9.54E-04	5.72E-02
368863.73	3755470.88	Fenceline	1.07E-03	4.25E-05	1.02E-02	6.98E-03	2.73E-03	3.66E-05	5.21E-04	8.80E-04	4.36E-02
368865.39	3758107.46	Fenceline	1.13E-03	3.53E-05	9.85E-03	8.53E-03	2.55E-03	3.03E-05	5.92E-04	8.52E-04	5.15E-02
368931.37	3758150.49	Fenceline	9.87E-04	3.10E-05	8.64E-03	7.46E-03	2.24E-03	2.66E-05	5.18E-04	7.47E-04	4.51E-02

Table 2-2.2
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2019 Mitigated Construction,
Construction TAC Concentrations - Particulates Only

X	Y	Receptor Type	ammonium ($\mu g/m^3$)	arsenic ($\mu g/m^3$)	chlorine ($\mu g/m^3$)	copper ($\mu g/m^3$)	manganese ($\mu g/m^3$)	mercury ($\mu g/m^3$)	nickel ($\mu g/m^3$)	vanadium ($\mu g/m^3$)	sulfates ($\mu g/m^3$)
368955.99	3755469.72	Fenceline	1.06E-03	4.26E-05	1.04E-02	7.58E-03	2.80E-03	3.62E-05	5.06E-04	9.09E-04	4.60E-02
368974.29	3758177.61	Fenceline	9.53E-04	3.12E-05	8.59E-03	7.29E-03	2.20E-03	2.68E-05	5.08E-04	7.42E-04	4.40E-02
368992.63	3758138.09	Fenceline	9.77E-04	3.14E-05	8.70E-03	7.47E-03	2.26E-03	2.68E-05	5.19E-04	7.52E-04	4.51E-02
369011.06	3758086.77	Fenceline	1.04E-03	3.33E-05	9.23E-03	7.84E-03	2.39E-03	2.86E-05	5.46E-04	7.95E-04	4.77E-02
369048.25	3755468.56	Fenceline	1.04E-03	4.26E-05	1.04E-02	7.28E-03	2.77E-03	3.62E-05	5.39E-04	8.95E-04	4.53E-02
369097.31	3758131.13	Fenceline	1.13E-03	3.60E-05	1.01E-02	8.73E-03	2.61E-03	3.07E-05	6.05E-04	8.70E-04	5.27E-02
369140.50	3755467.40	Fenceline	1.05E-03	4.56E-05	1.10E-02	7.75E-03	2.96E-03	3.83E-05	5.73E-04	9.58E-04	4.74E-02
369216.91	3758091.16	Fenceline	1.19E-03	3.69E-05	1.04E-02	8.95E-03	2.67E-03	3.17E-05	6.21E-04	8.92E-04	5.45E-02
369232.76	3755466.24	Fenceline	1.08E-03	4.75E-05	1.14E-02	7.66E-03	3.04E-03	4.02E-05	5.74E-04	9.79E-04	4.80E-02
369267.76	3755146.04	Fenceline	8.82E-04	3.28E-05	8.56E-03	7.29E-03	2.32E-03	2.77E-05	5.07E-04	7.59E-04	4.60E-02
369271.60	3758257.04	Fenceline	9.47E-04	3.05E-05	8.42E-03	7.00E-03	2.17E-03	2.62E-05	4.90E-04	7.20E-04	4.31E-02
369323.20	3758086.63	Fenceline	9.24E-04	3.31E-05	8.76E-03	7.41E-03	2.33E-03	2.78E-05	5.19E-04	7.73E-04	4.35E-02
369328.65	3758304.45	Fenceline	1.11E-03	3.44E-05	9.72E-03	8.35E-03	2.49E-03	2.95E-05	5.80E-04	8.32E-04	5.11E-02
369329.84	3755466.79	Fenceline	1.12E-03	4.94E-05	1.18E-02	8.38E-03	3.21E-03	4.15E-05	6.21E-04	1.04E-03	5.20E-02
369342.43	3757939.52	Fenceline	1.13E-03	4.56E-05	1.15E-02	9.11E-03	3.11E-03	3.80E-05	6.52E-04	1.02E-03	5.38E-02
369386.54	3758429.44	Fenceline	1.14E-03	3.72E-05	1.02E-02	8.58E-03	2.65E-03	3.18E-05	6.00E-04	8.80E-04	5.24E-02
369387.36	3758507.02	Fenceline	1.07E-03	3.57E-05	9.67E-03	7.74E-03	2.49E-03	3.07E-05	5.48E-04	8.22E-04	4.84E-02
369409.11	3758008.60	Fenceline	1.05E-03	3.78E-05	1.01E-02	8.30E-03	2.65E-03	3.18E-05	5.85E-04	8.77E-04	4.98E-02
369426.92	3755463.35	Fenceline	1.22E-03	5.06E-05	1.26E-02	9.48E-03	3.38E-03	4.24E-05	6.87E-04	1.10E-03	5.68E-02
369468.66	3758583.75	Fenceline	8.36E-04	3.03E-05	8.03E-03	6.25E-03	2.08E-03	2.58E-05	4.46E-04	6.85E-04	3.87E-02
369524.00	3755461.90	Fenceline	1.19E-03	4.88E-05	1.19E-02	8.56E-03	3.19E-03	4.13E-05	6.29E-04	1.04E-03	5.27E-02
369549.13	3758582.89	Fenceline	9.01E-04	2.99E-05	8.24E-03	6.89E-03	2.13E-03	2.55E-05	4.82E-04	7.07E-04	4.20E-02
369621.08	3755460.45	Fenceline	1.12E-03	4.62E-05	1.15E-02	8.71E-03	3.01E-03	3.88E-05	6.25E-04	1.00E-03	5.17E-02
369629.61	3758582.03	Fenceline	1.05E-03	3.34E-05	9.37E-03	8.11E-03	2.42E-03	2.85E-05	5.62E-04	8.07E-04	4.91E-02
369710.08	3758581.17	Fenceline	1.03E-03	3.13E-05	8.80E-03	7.53E-03	2.26E-03	2.71E-05	5.23E-04	7.54E-04	4.62E-02
369718.16	3755459.00	Fenceline	1.09E-03	4.21E-05	1.09E-02	8.68E-03	2.89E-03	3.52E-05	6.18E-04	9.51E-04	5.18E-02
369787.02	3758288.68	Fenceline	1.06E-03	4.99E-05	1.05E-02	7.96E-03	3.13E-03	4.30E-05	5.95E-04	9.20E-04	4.97E-02
369788.19	3758398.38	Fenceline	9.52E-04	3.49E-05	9.07E-03	7.31E-03	2.41E-03	2.95E-05	5.19E-04	7.93E-04	4.37E-02
369789.37	3758489.35	Fenceline	8.69E-04	3.01E-05	7.97E-03	6.55E-03	2.10E-03	2.57E-05	4.62E-04	6.95E-04	3.93E-02
369815.24	3755457.56	Fenceline	1.16E-03	4.31E-05	1.13E-02	9.47E-03	3.02E-03	3.60E-05	6.65E-04	1.00E-03	5.53E-02
369882.84	3758285.07	Fenceline	9.80E-04	3.59E-05	9.17E-03	7.74E-03	2.47E-03	3.04E-05	5.38E-04	8.54E-04	4.62E-02
369912.32	3755456.11	Fenceline	1.10E-03	4.32E-05	1.10E-02	8.77E-03	2.96E-03	3.61E-05	6.26E-04	9.71E-04	5.20E-02
369978.66	3758283.45	Fenceline	1.05E-03	3.89E-05	9.60E-03	6.55E-03	2.51E-03	3.39E-05	4.88E-04	8.12E-04	4.26E-02
370009.40	3755454.66	Fenceline	1.19E-03	4.35E-05	1.16E-02	1.01E-02	3.11E-03	3.60E-05	7.01E-04	1.03E-03	5.79E-02
370056.44	3758282.14	Fenceline	1.08E-03	3.87E-05	9.96E-03	7.33E-03	2.68E-03	3.34E-05	5.46E-04	8.44E-04	4.66E-02
370106.48	3755453.21	Fenceline	1.12E-03	3.88E-05	1.03E-02	8.54E-03	2.72E-03	3.30E-05	6.01E-04	9.00E-04	5.18E-02
370130.90	3758282.44	Fenceline	1.14E-03	3.67E-05	9.96E-03	6.87E-03	2.44E-03	3.27E-05	5.04E-04	7.96E-04	4.80E-02
370203.56	3755451.77	Fenceline	1.09E-03	3.96E-05	1.06E-02	9.01E-03	2.81E-03	3.30E-05	6.30E-04	9.33E-04	5.27E-02
370226.81	3758159.47	Fenceline	1.80E-03	6.35E-05	1.73E-02	1.55E-02	4.62E-03	5.25E-05	1.07E-03	1.54E-03	8.90E-02
370227.55	3758221.46	Fenceline	1.68E-03	5.91E-05	1.62E-02	1.45E-02	4.31E-03	4.90E-05	9.98E-04	1.44E-03	8.29E-02
370228.30	3758283.44	Fenceline	1.57E-03	5.48E-05	1.50E-02	1.34E-02	3.98E-03	4.55E-05	9.23E-04	1.33E-03	7.72E-02
370253.14	3758168.84	Fenceline	1.77E-03	6.22E-05	1.70E-02	1.52E-02	4.53E-03	5.15E-05	1.05E-03	1.51E-03	8.74E-02
370300.64	3755450.32	Fenceline	1.14E-03	4.42E-05	1.14E-02	9.25E-03	3.06E-03	3.69E-05	6.56E-04	1.01E-03	5.45E-02
370308.97	3758176.51	Fenceline	1.54E-03	4.87E-05	1.37E-02	1.18E-02	3.53E-03	4.16E-05	8.19E-04	1.18E-03	7.16E-02
370356.87	3758202.23	Fenceline	1.37E-03	5.27E-05	1.32E-02	7.91E-03	3.30E-03	4.63E-05	6.09E-04	1.06E-03	5.70E-02
370397.72	3755448.87	Fenceline	1.10E-03	4.62E-05	1.16E-02	8.99E-03	3.12E-03	3.84E-05	6.46E-04	1.02E-03	5.32E-02
370404.21	3758225.88	Fenceline	1.22E-03	5.67E-05	1.32E-02	7.52E-03	3.46E-03	4.85E-05	5.95E-04	1.10E-03	5.19E-02
370422.64	3758284.19	Fenceline	1.27E-03	5.80E-05	1.38E-02	7.84E-03	3.58E-03	4.87E-05	6.17E-04	1.07E-03	5.37E-02
370442.78	3758228.43	Fenceline	1.27E-03	5.80E-05	1.32E-02	7.07E-03	3.47E-03	5.03E-05	5.72E-04	1.09E-03	5.01E-02
370465.02	3755455.18	Fenceline	1.08E-03	4.57E-05	1.14E-02	8.62E-03	3.06E-03	3.80E-05	6.24E-04	9.97E-04	5.15E-02
370522.53	3758282.84	Fenceline	1.40E-03	5.62E-05	1.32E-02	7.83E-03	3.46E-03	4.94E-05	6.11E-04	1.10E-03	5.46E-02
370558.15	3755448.94	Fenceline	1.05E-03	4.34E-05	1.13E-02	8.46E-03	3.03E-03	3.77E-05	6.17E-04	9.88E-04	5.05E-02
370622.42	3758281.49	Fenceline	1.51E-03	5.69E-05	1.40E-02	1.01E-02	3.73E-03	4.91E-05	7.42E-04	1.21E-03	6.43E-02
370624.63	3755467.51	Fenceline	1.13E-03	5.43E-05	1.25E-02	7.50E-03	3.34E-03	4.60E-05	5.85E-04	1.06E-03	4.92E-02
370691.11	3755476.08	Fenceline	1.24E-03	6.17E-05	1.39E-02	7.90E-03	3.74E-03	5.24E-05	6.28E-04	1.18E-03	5.20E-02
370722.31	3758280.14	Fenceline	1.57E-03	5.62E-05	1.43E-02	1.10E-02	3.80E-03	4.83E-05	7.94E-04	1.24E-03	6.90E-02
370757.38	3755483.32	Fenceline	1.27E-03	6.44E-05	1.43E-02	7.81E-03	3.85E-03	5.47E-05	6.30E-04	1.21E-03	5.03E-02
370792.87	3757995.38	Fenceline	1.81E-03	7.61E-05	1.77E-02	9.79E-03	4.60E-03	6.68E-05	7.82E-04	1.46E-03	7.09E-02
370797.01	3758107.02	Fenceline	1.84E-03	6.70E-05	1.66E-02	1.19E-02	4.39E-03	5.83E-05	8.74E-04	1.43E-03	7.69E-02
370798.36	3758194.12	Fenceline	1.76E-03	6.36E-05	1.62E-02	1.27E-02	4.32E-03	5.45E-05	9.08E-04	1.42E-03	7.83E-02
370798.51	3757946.46	Fenceline	1.87E-03	8.72E-05	2.01E-02	1.15E-02	5.30E-03	7.47E-05	9.07E-04	1.68E-03	7.93E-02
370799.71	3758281.23	Fenceline	1.52E-03	5.12E-05	1.34E-02	1.01E-02	3.46E-03	4.47E-05	7.29E-04	1.14E-03	6.56E-02
370807.53	3755529.02	Fenceline	1.23E-03	6.38E-05	1.42E-02	7.76E-03	3.82E-03	5.40E-05	6.26E-04	1.20E-03	5.19E-02
370818.52	3757901.47	Fenceline	2.03E-03	9.68E-05	2.21E-02	1.25E-02	5.87E-03	8.27E-05	9.97E-04	1.86E-03	8.60E-02
370851.08	3757864.53	Fenceline	2.18E-03	1.05E-04	2.38E-02	1.33E-02	6.34E-03	8.99E-05	1.06E-03	2.01E-03	9.17E-02
370854.34	3755560.20	Fenceline	1.29E-03	6.83E-05	1.50E-02	7.84E-03	4.04E-03	5.80E-05	6.43E-04	1.27E-03	5.32E-02
370901.14	3755591.38	Fenceline	1.36E-03	7.39E-05	1.59E-02	7.69E-03	4.28E-03	6.30E-05	6.51E-04	1.34E-03	5.42E-02

Table 2-2.2
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2019 Mitigated Construction,
Construction TAC Concentrations - Particulates Only

X	Y	Receptor Type	ammonium ($\mu g/m^3$)	arsenic ($\mu g/m^3$)	chlorine ($\mu g/m^3$)	copper ($\mu g/m^3$)	manganese ($\mu g/m^3$)	mercury ($\mu g/m^3$)	nickel ($\mu g/m^3$)	vanadium ($\mu g/m^3$)	sulfates ($\mu g/m^3$)
370908.58	3757858.81	Fenceline	2.24E-03	1.03E-04	2.38E-02	1.43E-02	6.35E-03	8.79E-05	1.12E-03	2.02E-03	9.64E-02
370929.68	3755646.61	Fenceline	1.43E-03	7.75E-05	1.66E-02	7.52E-03	4.44E-03	6.66E-05	6.52E-04	1.38E-03	5.50E-02
370932.48	3755705.67	Fenceline	1.47E-03	8.09E-05	1.75E-02	8.56E-03	4.71E-03	6.88E-05	7.20E-04	1.47E-03	5.97E-02
370959.17	3757378.41	Fenceline	4.37E-03	2.32E-04	4.85E-02	1.87E-02	1.28E-02	2.02E-04	1.74E-03	3.95E-03	1.54E-01
370959.96	3757296.11	Fenceline	4.45E-03	2.30E-04	4.96E-02	2.21E-02	1.32E-02	2.00E-04	1.93E-03	4.08E-03	1.66E-01
370960.75	3757213.81	Fenceline	4.25E-03	2.24E-04	4.74E-02	2.14E-02	1.28E-02	1.94E-04	1.87E-03	3.96E-03	1.61E-01
370961.54	3757131.50	Fenceline	3.74E-03	1.83E-04	4.03E-02	1.91E-02	1.06E-02	1.59E-04	1.62E-03	3.31E-03	1.42E-01
370962.33	3757049.20	Fenceline	3.76E-03	1.71E-04	3.75E-02	1.68E-02	9.78E-03	1.51E-04	1.46E-03	3.04E-03	1.29E-01
370963.12	3756966.90	Fenceline	6.36E-03	2.46E-04	5.25E-02	2.28E-02	1.39E-02	2.26E-04	2.01E-03	4.30E-03	1.75E-01
370966.07	3757852.69	Fenceline	2.24E-03	9.24E-05	2.26E-02	1.50E-02	5.92E-03	7.91E-05	1.13E-03	1.91E-03	9.84E-02
370968.09	3757808.70	Fenceline	2.50E-03	1.15E-04	2.66E-02	1.80E-02	7.09E-03	9.81E-05	1.25E-03	2.26E-

Table 2-2.2
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2019 Mitigated Construction, Construction TAC Concentrations - Particulates Only

X	Y	Receptor Type	ammonium ($\mu g/m^3$)	arsenic ($\mu g/m^3$)	chlorine ($\mu g/m^3$)	copper ($\mu g/m^3$)	manganese ($\mu g/m^3$)	mercury ($\mu g/m^3$)	nickel ($\mu g/m^3$)	vanadium ($\mu g/m^3$)	sulfates ($\mu g/m^3$)
372904.85	3757746.24	Fenceline	2.74E-03	1.15E-04	2.83E-02	1.88E-02	7.40E-03	9.80E-05	1.41E-03	2.38E-03	1.22E-01
372910.27	3757732.13	Fenceline	2.83E-03	1.24E-04	2.98E-02	1.87E-02	7.79E-03	1.06E-04	1.43E-03	2.50E-03	1.24E-01
372919.43	3756436.58	Fenceline	7.16E-04	2.87E-05	6.80E-03	4.39E-03	1.81E-03	2.50E-05	3.34E-04	5.81E-04	2.89E-02
372920.09	3756504.79	Fenceline	7.37E-04	2.84E-05	6.87E-03	4.62E-03	1.82E-03	2.47E-05	3.47E-04	5.87E-04	3.02E-02
372927.41	3755366.00	Fenceline	5.37E-04	2.26E-05	5.14E-03	2.96E-03	1.37E-03	1.97E-05	2.34E-04	4.34E-04	1.99E-02
372927.86	3755465.33	Fenceline	5.61E-04	2.29E-05	5.28E-03	2.93E-03	1.38E-03	1.77E-05	2.34E-04	4.37E-04	2.06E-02
372928.32	3755564.67	Fenceline	5.87E-04	2.35E-05	5.52E-03	3.19E-03	1.43E-03	2.07E-05	2.51E-04	4.56E-04	2.22E-02
372928.77	3755664.00	Fenceline	6.09E-04	2.39E-05	5.68E-03	3.60E-03	1.50E-03	2.09E-05	2.75E-04	4.80E-04	2.41E-02
372929.23	3755763.34	Fenceline	6.27E-04	2.38E-05	5.77E-03	3.89E-03	1.52E-03	2.07E-05	2.92E-04	4.92E-04	2.55E-02
372947.75	3756971.61	Fenceline	1.02E-03	4.22E-05	9.47E-03	5.82E-03	2.41E-03	3.82E-05	3.56E-04	7.49E-04	3.32E-02
372992.82	3755761.76	Fenceline	6.04E-04	2.21E-05	5.47E-03	3.78E-03	1.43E-03	1.93E-05	2.81E-04	4.65E-04	2.48E-02
372995.87	3757731.75	Fenceline	2.63E-03	1.11E-04	2.69E-02	1.72E-02	7.03E-03	9.53E-05	1.31E-03	2.26E-03	1.14E-01
373004.43	3756435.35	Fenceline	6.88E-04	2.66E-05	6.42E-03	4.29E-03	1.70E-03	2.32E-05	3.22E-04	5.48E-04	2.81E-02
373031.15	3756971.45	Fenceline	3.93E-03	1.68E-04	4.01E-02	2.60E-02	1.06E-02	2.27E-03	3.54E-03	6.50E-04	7.09E-04
373056.40	3755760.18	Fenceline	5.74E-04	2.02E-05	5.09E-03	3.57E-03	1.32E-03	1.77E-05	2.64E-04	4.29E-04	2.36E-02
373057.59	3755829.92	Fenceline	5.67E-04	1.90E-05	4.91E-03	3.47E-03	1.25E-03	1.68E-05	2.55E-04	4.08E-04	2.32E-02
373058.79	3755899.65	Fenceline	5.66E-04	1.92E-05	4.95E-03	3.33E-03	1.25E-03	1.71E-05	2.48E-04	4.05E-04	2.29E-02
373077.68	3757731.38	Fenceline	2.88E-03	1.15E-04	2.71E-02	1.60E-02	7.07E-03	1.01E-04	1.25E-03	2.25E-03	1.10E-01
373089.44	3756434.13	Fenceline	6.47E-04	2.38E-05	5.88E-03	4.00E-03	1.54E-03	2.09E-05	2.98E-04	4.97E-04	2.64E-02
373118.11	3756991.19	Fenceline	1.13E-03	5.56E-05	1.18E-02	4.41E-03	3.07E-03	4.93E-05	4.13E-04	9.41E-04	3.70E-02
373137.84	3755759.39	Fenceline	5.38E-04	1.84E-05	4.73E-03	3.25E-03	1.21E-03	1.63E-05	2.41E-04	3.91E-04	2.20E-02
373138.33	3755829.37	Fenceline	5.35E-04	1.87E-05	4.77E-03	3.13E-03	1.20E-03	1.65E-05	2.34E-04	3.89E-04	2.17E-02
373138.82	3755899.35	Fenceline	5.34E-04	1.93E-05	4.91E-03	3.06E-03	1.23E-03	1.71E-05	2.32E-04	3.94E-04	2.16E-02
373159.49	3757731.01	Fenceline	3.90E-03	2.52E-04	5.10E-02	1.57E-02	1.35E-02	2.17E-04	1.62E-03	4.10E-03	1.41E-01
373174.45	3756432.91	Fenceline	6.02E-04	2.09E-05	5.28E-03	3.65E-03	1.36E-03	1.84E-05	2.70E-04	4.41E-04	2.44E-02
373179.17	3757023.66	Fenceline	1.46E-03	1.01E-04	1.97E-02	4.41E-03	5.23E-03	8.78E-05	5.43E-04	1.56E-03	4.71E-02
373213.14	3755758.34	Fenceline	5.10E-04	1.81E-05	4.60E-03	2.97E-03	1.14E-03	1.60E-05	2.22E-04	3.74E-04	2.07E-02
373236.62	3757073.64	Fenceline	1.34E-03	9.09E-05	1.78E-02	4.15E-03	4.71E-03	7.88E-05	4.98E-04	1.41E-03	4.29E-02
373241.30	3757730.64	Fenceline	3.42E-03	2.35E-04	4.77E-02	1.48E-02	1.26E-02	2.01E-04	1.52E-03	3.83E-03	1.31E-01
373259.45	3756431.68	Fenceline	5.63E-04	1.84E-05	4.78E-03	3.32E-03	1.21E-03	1.64E-05	2.45E-04	3.94E-04	2.26E-02
373288.44	3756757.29	Fenceline	4.84E-04	1.80E-05	4.51E-03	2.72E-03	1.18E-03	1.59E-05	2.06E-04	3.62E-04	1.95E-02
373303.06	3757072.90	Fenceline	1.15E-03	6.74E-05	1.36E-02	3.93E-03	3.58E-03	5.91E-05	4.18E-04	1.08E-03	3.66E-02
373317.14	3756432.03	Fenceline	5.46E-04	1.80E-05	4.66E-03	3.14E-03	1.17E-03	1.61E-05	2.33E-04	3.80E-04	2.18E-02
373323.11	3757730.27	Fenceline	2.80E-03	1.34E-04	2.95E-02	1.35E-02	7.68E-03	1.17E-04	1.16E-03	2.39E-03	1.04E-01
373323.28	3757744.87	Fenceline	2.82E-03	1.51E-04	3.25E-02	1.37E-02	8.52E-03	1.30E-04	1.22E-03	2.63E-03	1.07E-01
373363.74	3756756.24	Fenceline	4.60E-04	1.81E-05	4.52E-03	2.57E-03	1.12E-03	1.59E-05	2.01E-04	3.57E-04	1.86E-02
373365.13	3755845.96	Fenceline	4.68E-04	1.94E-05	4.70E-03	2.85E-03	1.21E-03	1.68E-05	2.20E-04	3.87E-04	1.95E-02
373366.53	3755935.69	Fenceline	5.13E-04	2.07E-05	4.97E-03	3.21E-03	1.31E-03	1.79E-05	2.44E-04	4.21E-04	2.08E-02
373367.92	3756025.41	Fenceline	5.39E-04	2.13E-05	5.09E-03	3.26E-03	1.34E-03	1.86E-05	2.48E-04	4.30E-04	2.11E-02
373369.31	3756115.13	Fenceline	5.46E-04	2.14E-05	5.16E-03	3.22E-03	1.34E-03	1.87E-05	2.47E-04	4.31E-04	2.16E-02
373369.50	3757072.16	Fenceline	1.15E-03	7.08E-05	1.41E-02	3.88E-03	3.74E-03	6.17E-05	4.25E-04	1.13E-03	3.70E-02
373370.37	3757159.75	Fenceline	1.22E-03	6.46E-05	1.31E-02	4.24E-03	3.47E-03	5.71E-05	4.28E-04	1.06E-03	3.76E-02
373370.71	3756204.86	Fenceline	5.46E-04	2.11E-05	5.11E-03	3.33E-03	1.34E-03	1.84E-05	2.52E-04	4.31E-04	2.22E-02
373371.24	3757247.34	Fenceline	1.31E-03	5.46E-05	1.15E-02	4.37E-03	3.01E-03	4.98E-05	4.00E-04	9.24E-04	3.80E-02
373372.10	3756294.58	Fenceline	5.37E-04	1.88E-05	4.74E-03	3.25E-03	1.22E-03	1.66E-05	2.41E-04	3.96E-04	2.18E-02
373372.12	3757334.94	Fenceline	1.64E-03	5.31E-05	1.20E-02	4.83E-03	2.97E-03	5.09E-05	4.34E-04	9.21E-04	4.45E-02
373372.99	3757422.53	Fenceline	2.56E-03	8.20E-05	1.84E-02	7.28E-03	4.56E-03	7.90E-05	6.61E-04	1.41E-03	6.82E-02
373373.72	3756378.86	Fenceline	5.30E-04	1.77E-05	4.59E-03	3.09E-03	1.13E-03	1.57E-05	2.28E-04	3.68E-04	2.15E-02
373373.86	3757510.12	Fenceline	4.36E-03	2.31E-04	4.64E-02	1.39E-02	1.23E-02	2.05E-04	1.46E-03	3.71E-03	1.32E-01
373374.73	3757597.71	Fenceline	4.45E-03	2.38E-04	4.83E-02	1.55E-02	1.28E-02	2.11E-04	1.57E-03	3.89E-03	1.41E-01
373374.83	3756432.37	Fenceline	5.30E-04	1.76E-05	4.54E-03	2.99E-03	1.14E-03	1.57E-05	2.24E-04	3.68E-04	2.10E-02
373375.60	3757685.31	Fenceline	3.00E-03	1.24E-04	2.57E-02	1.30E-02	6.59E-03	1.02E-04	1.07E-03	2.08E-03	1.00E-01
373393.43	3757684.85	Fenceline	3.02E-03	1.15E-04	2.61E-02	1.30E-02	6.73E-03	1.04E-04	1.08E-03	2.11E-03	1.00E-01
373394.30	3757744.19	Fenceline	2.41E-03	8.47E-05	2.06E-02	1.28E-02	5.30E-03	7.60E-05	9.79E-04	1.70E-03	8.91E-02
367047.63	3761097.01	Commercial	3.46E-04	1.46E-05	3.30E-03	1.78E-03	8.71E-04	1.29E-05	1.44E-04	2.75E-04	1.26E-02
370737.54	3762942.92	Commercial	1.49E-04	5.15E-06	1.33E-03	7.76E-04	3.23E-04	4.64E-06	6.00E-05	1.03E-04	5.80E-03
371031.93	3758057.86	Commercial	2.23E-03	7.87E-05	2.05E-02	1.60E-02	5.38E-03	6.77E-05	1.15E-03	1.77E-03	1.01E-01
371034.38	3758338.88	Commercial	9.96E-04	3.41E-05	8.76E-03	5.20E-03	2.14E-03	3.07E-05	4.00E-04	6.86E-04	3.91E-02
371091.65	3754274.94	Commercial	5.97E-04	2.55E-05	5.89E-03	3.67E-03	1.58E-03	2.20E-05	2.83E-04	5.06E-04	2.37E-02
371165.78	3758547.83	Commercial	7.84E-04	2.59E-05	7.08E-03	5.16E-03	1.76E-03	2.27E-05	3.72E-04	5.75E-04	3.39E-02
372241.00	3757383.00	Commercial	3.34E-03	9.12E-05	2.36E-02	1.84E-02	6.17E-03	8.41E-05	1.32E-03	2.03E-03	1.15E-01
372703.01	3761799.64	Commercial	2.94E-04	9.59E-06	2.57E-03	2.17E-03	6.78E-04	8.24E-06	1.52E-04	2.25E-04	1.29E-02
374194.97	3754806.86	Commercial	3.24E-04	1.32E-05	3.15E-03	1.79E-03	8.06E-04	1.16E-05	1.41E-04	2.56E-04	1.27E-02
374697.43	3760305.50	Commercial	4.79E-04	1.43E-05	3.69E-03	2.33E-03	9.09E-04	1.32E-05	1.76E-04	2.93E-04	1.70E-02
375423.74	3758805.14	Commercial	4.08E-04	1.48E-05	3.63E-03	2.43E-03	9.48E-04	1.30E-05	1.82E-04	3.06E-04	1.59E-02
375433.42	3757541.59	Commercial	9.23E-04	3.83E-05	8.33E-03	3.31E-03	2.14E-03	3.48E-05	3.01E-04	6.59E-04	2.84E-02
378090.06	3758535.33	Commercial	6.70E-04	2.48E-05	5.97E-03	3.62E-03	1.54E-03	2.21E-05	2.80E-04	4.93E-04	2.52E-02

Table 2-2.2
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2019 Mitigated Construction, Construction TAC Concentrations - Particulates Only

X	Y	Receptor Type	ammonium ($\mu g/m^3$)	arsenic ($\mu g/m^3$)	chlorine ($\mu g/m^3$)	copper ($\mu g/m^3$)	manganese ($\mu g/m^3$)	mercury ($\mu g/m^3$)	nickel ($\mu g/m^3$)	vanadium ($\mu g/m^3$)	sulfates ($\mu g/m^3$)
368494.88	3756671.28	Onsite	1.26E-03	4.95E-05	1.21E-02	8.73E-03	3.24E-03	4.23E-05	6.41E-04	1.05E-03	5.32E-02
370394.80	3756845.73	Onsite	1.42E-02	6.57E-04	1.35E-01	5.13E-02	3.61E-02	5.89E-04	4.81E-03	1.11E-02	4.18E-01
368983.23	3754581.57	Commercial	6.35E-04	2.68E-05	6.55E-03	4.75E-03	1.76E-03	2.25E-05	3.48E-04	5.71E-04	2.88E-02
369216.41	3758422.45	Commercial	9.05E-04	3.18E-05	8.54E-03	6.81E-03	2.21E-03	2.71E-05	4.83E-04	7.29E-04	4.20E-02
369532.57	3755391.67	Commercial	1.51E-03	5.57E-05	1.47E-02	1.17E-02	3.85E-03	4.69E-05	8.33E-04	1.27E-03	7.11E-02
369574.04	3758166.39	Commercial	1.12E-03	3.45E-05	9.63E-03	9.06E-03	2.46E-03	2.99E-05	5.63E-04	8.20E-04	4.99E-02
369581.37	3758516.07	Commercial	1.02E-03	3.34E-05	9.24E-03	7.66E-03	2.37E-03	2.86E-05	5.37E-04	7.88E-04	4.73E-02
369830.08	3755394.84	Commercial	1.34E-03	4.51E-05	1.21E-02	9.20E-03	3.08E-03	3.92E-05	6.60E-04	1.01E-03	5.89E-02
370114.12	3758186.53	Commercial	1.23E-03	4.36E-05	1.13E-02	7.21E-03	2.80E-03	3.85E-05	5.43E-04	9.03E-04	5.16E-02
371021.69	3757820.60	Commercial	2.39E-03	9.11E-05	2.29E-02	1.68E-02	6.05E-03	7.82E-05	1.23E-03	1.92E-03	1.10E-01
366809.77	3757837.27	Residential	5.41E-04	2.23E-05	5.13E-03	3.01E-03	1.36E-03	1.95E-05	2.36E-04	4.33E-04	2.00E-02
366843.26	3757860.52	Residential	5.35E-04	2.22E-05	5.08E-03	2.90E-03	1.35E-03	1.95E-05	2.30E-04	4.27E-04	1.96E-02
366900.00	3758500.00	Residential	4.05E-04	1.60E-05	3.92E-03	2.86E-03	1.05E-03	1.36E-05	2.09E-04	3.41E-04	1.74E-02
366900.00	3762500.00	Residential	1.82E-04	7.39E-06	1.77E-03	1.10E-03	4.72E-04	6.57E-06	8.48E-05	1.51E-04	7.14E-03
366900.00	3763500.00	Residential	1.22E-04	4.48E-06	1.12E-03	8.80E-04	3.01E-04	3.84E-06	6.20E-05	9.83E-05	5.17E-03
366900.00	3764500.00	Residential	1.64E-04	5.25E-06	1.38E-03	1.07E-03	3.58E-04	4.63E-06	7.63E-05	1.18E-04	6.73E-03
366982.41	3757958.65	Residential	5.23E-04	2.22E-05	5.13E-03	3.21E-03	1.38E-03	1.92E-05	2.47E-04	4.40E-04	2.05E-02
367163.97	3758028.80	Residential	6.07E-04	2.48E-05	5.69E-03	3.24E-03	1.50E-03	2.18E-05	2.57E-04	4.76E-04	2.22E-02
367275.38	3757989.92	Residential	5.85E-04	2.45E-05	5.61E-03	3.36E-03	1.50E-03	2.14E-05	2.63E-04	4.79E-04	2.21E-02
367395.04	3758065.94	Residential	5.41E-04	2.52E-05	5.70E-03	3.31E-03	1.53E-03	2.16E-05	2.61E-04	4.86E-04	2.17E-02
367880.40	3758145.84	Residential	9.88E-04	3.27E-05	8.87E-03	7.05E-03	2.27E-03	2.82E-05	5.00E-04	7.51E-04	4.43E-02
367900.00	3761500.00	Residential	2.25E-04	9.10E-06	2.17E-03	1.44E-03	5.78E-04	7.85E-06	1.08E-04	1.86E-04	9.18E-03
367900.00	3762000.00	Residential	1.98E-04	7.66E-06	1.77E-03	1.36E-03	4.74E-04	6.10E-06	9.95E-05	1.55E-04	8.20E-03
367900.00	3764500.00	Residential	1.12E-04	4.06E-06	1.00E-03	6.72E-04	2.61E-04	3.57E-06	5.02E-05	8.42E-05	4.37E-03
368068.97	3758068.94	Residential	1.23E-03	3.94E-05	1.09E-02	9.43E-03	2.84E-03	3.37E-05	6.55E-04	9.47E-04	5.68E-02
368182.48	3758015.85	Residential	1.21E-03	3.82E-05	1.05E-02	8.67E-03	2.70E-03	3.31E-05	6.08E-04	8.97E-04	5.39E-02
368416.83	3757988.39	Residential	1.21E-03	4.33E-05	1.18E-02	7.48E-03	2.82E-03	3.80E-05	5.57E-04	9.13E-04	5.22E-02
368577.94	3757979.23	Residential	1.29E-03	4.55E-05	1.24E-02	1.11E-02	3.31E-03	3.77E-05	7.66E-04	1.10E-03	6.36E-02
368764.68	3758079.93	Residential	1.22E-03	3.89E-05	1.08E-02	9.45E-03	2.82E-03	3.32E-05	6.54E-04	9.41E-04	5.66E-02
368900.00	3754500.00	Residential	5.85E-04	2.55E-05	6.14E-03	4.20E-03	1.64E-03	2.15E-05	3.14E-04	5.29E-04	2.62E-02
368900.00	3759500.00	Residential	7.21E-04	2.51E-05	6.52E-03	5.38E-03	1.98E-03	2.54E-05	3.95E-04	6.44E-04	3.28E-02
368900.00	3761500.00	Residential	2.17E-04	7.53E-06	1.97E-03	1.62E-03	5.24E-04	6.42E-06	1.14E-04	1.73E-04	9.62E-03
368900.00	3762500.00	Residential	2.02E-04	6.90E-06	1.79E-03	1.48E-03	4.79E-04	5.91E-06	1.04E-04	1.58E-04	8.70E-03
368900.00	3763500.00	Residential	1.81E-04	6.45E-06	1.61E-03	1.22E-03	4.30E-04	5.59E-06	8.80E-05	1.40E-04	7.39E-03
368900.00	3764500.00	Residential	1.56E-04	5.60E-06	1.38E-03	9.85E-04	3.68E-04	4.93E-06	7.58E-05	1.19E-04	6.12E-03
368944.10	3757186.12	Residential	9.55E-04	3.10E-05	8.51E-03	7.20E-03	2.21E-03	2.65E-05	5.03E-04	7.35E-04	4.36E-02
369206.25	3758147.26	Residential	1.08E-03	3.43E-05	9.57E-03	8.22E-03	2.47E-03	2.94E-05	5.71E-04	8.24E-04	4.99E-02
369268.49	3758066.34	Residential	1.20E-03	3.82E-05	1.07E-02	9.29E-03	2.77E-03	3.26E-05	6.44E-04	9.25E-04	5.61E-02
369333.85	3757999.43	Residential	1.25E-03	4.05E-05	1.11E-02	9.11E-03	2.86E-03	3.49E-05	6.47E-04	9.48E-04	5.65E-02
369426.60	3758641.99	Residential	8.24E-04	4.22E-05	7.48E-03	6.08E-03	1.96E-03	2.42E-05	4.26E-04	6.45E-04	3.67E-02
369599.53	3758634.67	Residential	9.92E-04	3.12E-05	8.77E-03	7.57E-03	2.26E-03	2.67E-05	5.25E-04	7.54E-04	4.60E-02
369775.29	3758632.83	Residential	9.74E-04	3.52E-05	9.10E-03	6.42E-03	2.33E-03	3.05E-05	4.71E-04	7.57E-04	4.23E-02
369834.01	3758329.33	Residential	9.79E-04	3.70E-05	9.39E-03	6.82E-03	2.46E-03	3.17E-05	4.98E-04	8.00E-04	4.31E-02
369900.00	3754500.00	Residential	7.21E-04	2.51E-05	6.52E-03	5.38E-03	1.98E-03	2.54E-05	3.95E-04	6.44E-04	3.28E-02
369900.00	3758500.00	Residential	8.51E-04	3.37E-05	8.32E-03	6.22E-03	2.24E-03	2.86E-05	4.52E-04	7.29E-04	3.76E-02
369900.00	3759500.00	Residential	5.58E-04	1.72E-05	4.78E-03	4.12E-03	1.24E-03	1.48E-05	2.86E-04	4.13E-04	2.49E-02
369900.00	3761500.00	Residential	2.21E-04	7.62E-06	1.93E-03	1.48E-03	5.12E-04	6.63E-06	1.07E-04	1.68E-04	9.02E-03
369900.00	3762500.00	Residential	1.78E-04	6.26E-06	1.58E-03	1.31E-03	4.13E-04	5.47E-06	9.35E-05	1.35E-04	7.70E-03
369900.00	3764500.00	Residential	1.24E-04	4.54E-06	1.10E-03	7.61E-04	2.92E-04	3.97E-06	5.65E-05	9.45E-05	4.79E-03
370006.10	3758331.16	Residential	1.03E-03	3.59E-05	9.26E-03	6.94E-03	2.41E-03	3.12E-05	5.02E-04	7.90E-04	4.37E-02
370183.69	3758338.49	Residential	1.50E-03	4.94E-05	1.34E-02	9.70E-03	3.34E-03	4.35E-05	7.03E-04	1.09E-03	6.53E-02
370425.35	3758336.66	Residential	1.29E-03	4.31E-05	1.17E-02	9.26E-03	2.98E-03	3.23E-05	6.47E-04	1.02E-03	5.93E-02
370701.79	3758334.82	Residential	1.44E-03	5.03E-05	1.29E-02	9.89E-03	3.40E-03	4.35E-05	7.12E-04	1.11E-03	6.28E-02
370780.52	3758327.50	Residential	1.39E-03	4.48E-05	1.19E-02	8.74E-03	3.01E-03	3.96E-05	6.33E-04	9.87E-04	5.86E-02
370900.00	3759500.00	Residential	5.49E-04	1.84E-05	4.95E-03	4.09E-03	1.30E-03	1.58E-05	2.88E-04	4.29E-04	2.47E-02
370900.00	3760500.00	Residential	4.81E-04	1.15E-05	3.23E-03	2.31E-03	7.74E-04	1.11E-05	1.67E-04	2.55E-04	1.67E-02
370900.00	3762500.00	Residential	2.50E-04	5.58E-06	1.23E-03	1.27E-03	3.50E-04	6.62E-06	1.27E-04	1.83E-04	1.11E-02
370900.00	3763500.00	Residential	1.50E-04	4.58E-06	1.23E-03	7.40E-04	2.92E-04	4.23E-06	5.64E-05	9.39E-05	5.73E-03
370900.00	3764500.00	Residential	1.14E-04	4.09E-06	1.00E-03	5.90E-04	2.53E-04	3.67E-06	4.58E-05	8.09E-05	4.20E-03
371295.29	3758036.94	Residential	1.43E-03	4.22E-05	1.18E-02	8.21E-03	2.84E-03	3.83E-05	5.99E-04	9.27E-04	5.80E-02
371421.46	3758118.19	Residential	1.01E-03	4.44E-05	1.15E-02	7.71E-03	2.90E-03	3.77E-05	5.72E-04	9.38E-04	5.08E-02
371550.51	3758209.00	Residential	1.10E-03	3.91E-05	1.08E-02	8.37E-03	2.72E-03	3.32E-05	5.95E-04	8.97E-04	5.21E-02
371685.28	3758299.81	Residential	8.85E-04	3.78E-05	8.74E-03	4.87E-03	2.29E-03	3.31E-05	3.88E-04	7.24E-04	3.41E-02
371754.11	3758291.20	Residential	8.97E-04	4.39E-05	9.80E-03	5.07E-03	2.60E-03	3.78E-05	4.17E-04	8.16E-04	3.66E-02
371807.64	3758213.78	Residential	9.50E-04	4.28E-05	9.90E-03	5.61E-03	2.60E-03	3.69E-05	4.45E-04	8.24E-04	3.92E-02
371874.55	3758164.07	Residential	1.05E-03	4.62E-05	1.07E-02	6.06E-03	2.81E-03	4.00E-05	4.81E-04	8.90E-04	4.25E-02
371900.00	3758500.00	Residential	6.90E-04	2.93E-05	6.91E-03	3.89E-03	1.79E-03	2.56E-05	3.08E-04	5.66E-04	2.72E-02

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X	Y	Receptor Type	ammonium ($\mu g/m^3$)	arsenic ($\mu g/m^3$)	chlorine ($\mu g/m^3$)	copper ($\mu g/m^3$)	manganese ($\mu g/m^3$)	mercury ($\mu g/m^3$)	nickel ($\mu g/m^3$)	vanadium ($\mu g/m^3$)	sulfates ($\mu g/m^3$)
371900.00	3759500.00	Residential	3.65E-04	1.52E-05	3.62E-03	2.40E-03	9.67E-04	1.31E-05	1.81E-04	3.11E-04	1.52E-02
371900.00	3762500.00	Residential	2.37E-04	7.56E-06	1.99E-03	1.59E-03	5.21E-04	6.63E-06	1.13E-04	1.72E-04	9.75E-03
371900.00	3763500.00	Residential	1.80E-04	6.03E-06	1.44E-03	9.93E-04	3.86E-04	5.41E-06	7.41E-05	1.25E-04	6.29E-03
371933.81	3758104.81	Residential	1.31E-03	4.65E-05	1.10E-02	5.65E-03	2.76E-03	4.26E-05	4.61E-04	8.71E-04	4.41E-02
372241.00	3757883.00	Residential	5.92E-03	1.89E-04	5.13E-02	3.53E-02	1.26E-02	1.69E-04	2.59E-03	4.09E-03	2.45E-01
372241.00	3757983.00	Residential	3.74E-03	1.38E-04	3.56E-02	2.14E-02	8.27E-03	1.25E-04	1.64E-03	2.61E-03	1.37E-01
372341.00	3757883.00	Residential	5.92E-03	2.14E-04	5.65E-02	4.32E-02	1.46E-02	1.82E-04	3.09E-03	4.78E-03	2.67E-01
372341.00	3757983.00	Residential	4.39E-03	1.49E-04	3.84E-02	2.41E-02	9.52E-03	1.34E-04	1.83E-03	3.07E-03	1.73E-01
372900.00	3753500.00	Residential	2.59E-04	8.80E-06	2.30E-03	1.93E-03	6.16E-04	7.52E-06	1.36E-04	2.04E-04	1.13E-02
372900.00	3754500.00	Residential	3.63E-04	1.39E-05	3.72E-03	2.39E-03	9.99E-04	1.36E-05	1.82E-04	3.20E-04	1.51E-02
372900.00	3759500.00	Residential	3.78E-04	1.39E-05	3.39E-03	2.37E-03	9.01E-04	1.21E-05	1.76E-04	2.92E-04	1.70E-02
372900.00	3760500.00	Residential	2.48E-04	9.30E-06	2.28E-03	1.59E-03	6.03E-04	8.07E-06	1.18E-04	1.95E-04	9.99E-03
372900.00	3761500.00	Residential	2.83E-04	1.00E-05	2.35E-03	1.17E-

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X	Y	Receptor Type	ammonium ($\mu g/m^3$)	arsenic ($\mu g/m^3$)	chlorine ($\mu g/m^3$)	copper ($\mu g/m^3$)	manganese ($\mu g/m^3$)	mercury ($\mu g/m^3$)	nickel ($\mu g/m^3$)	vanadium ($\mu g/m^3$)	sulfates ($\mu g/m^3$)
383900.00	3756500.00	Residential	7.47E-05	2.99E-06	7.06E-04	4.51E-04	1.88E-04	2.60E-06	3.44E-05	6.02E-05	2.87E-03
383900.00	3757500.00	Residential	7.63E-05	3.19E-06	7.32E-04	4.17E-04	1.93E-04	2.92E-06	3.30E-05	6.13E-05	2.81E-03
383900.00	3762500.00	Residential	1.20E-04	4.48E-06	1.08E-03	7.16E-04	2.85E-04	3.94E-06	5.38E-05	9.19E-05	4.57E-03
383900.00	3763500.00	Residential	1.18E-04	4.51E-06	1.07E-03	6.98E-04	2.85E-04	3.95E-06	5.29E-05	9.15E-05	4.46E-03
383900.00	3764500.00	Residential	1.17E-04	4.59E-06	1.09E-03	7.01E-04	2.89E-04	4.00E-06	5.33E-05	9.27E-05	4.48E-03
384900.00	3753500.00	Residential	6.95E-05	2.70E-06	6.39E-04	4.54E-04	1.68E-04	2.38E-06	3.03E-05	5.37E-05	2.59E-03
384900.00	3754500.00	Residential	5.08E-05	1.98E-06	4.71E-04	3.16E-04	1.26E-04	1.72E-06	2.37E-05	4.05E-05	1.98E-03
384900.00	3755500.00	Residential	6.03E-05	2.36E-06	5.62E-04	3.66E-04	1.49E-04	2.06E-06	2.77E-05	4.79E-05	2.33E-03
384900.00	3756500.00	Residential	6.74E-05	2.70E-06	6.36E-04	4.06E-04	1.69E-04	2.34E-06	3.10E-05	5.42E-05	2.59E-03
384900.00	3757500.00	Residential	6.69E-05	2.80E-06	6.42E-04	3.66E-04	1.73E-04	2.56E-06	3.00E-05	5.45E-05	2.51E-03
384900.00	3758500.00	Residential	2.22E-04	8.25E-06	1.85E-03	7.86E-04	4.67E-04	7.63E-06	6.93E-05	1.45E-04	6.73E-03
384900.00	3759500.00	Residential	3.17E-04	1.32E-05	3.01E-03	1.60E-03	7.87E-04	1.17E-05	1.30E-04	2.48E-04	1.15E-02
384900.00	3760500.00	Residential	1.01E-04	4.05E-06	9.45E-04	5.54E-04	2.48E-04	3.57E-06	4.34E-05	7.89E-05	3.74E-03
384900.00	3761500.00	Residential	1.05E-04	4.31E-06	9.92E-04	5.77E-04	2.63E-04	3.79E-06	4.53E-05	8.35E-05	3.88E-03
384900.00	3762500.00	Residential	1.05E-04	3.91E-06	9.28E-04	5.64E-04	2.42E-04	3.47E-06	4.36E-05	7.73E-05	3.81E-03
384900.00	3763500.00	Residential	8.56E-05	2.96E-06	7.21E-04	4.39E-04	1.85E-04	2.67E-06	3.38E-05	5.91E-05	3.06E-03
384900.00	3764500.00	Residential	1.08E-04	4.07E-06	9.79E-04	6.57E-04	2.60E-04	3.56E-06	4.93E-05	8.37E-05	4.16E-03
371641.00	3756983.00	Commercial	6.37E-03	3.28E-04	6.47E-02	1.60E-02	1.70E-02	2.95E-04	1.86E-03	5.10E-03	1.68E-01
371741.00	3756983.00	Commercial	5.25E-03	2.82E-04	5.58E-02	1.40E-02	1.47E-02	2.52E-04	1.60E-03	4.41E-03	1.45E-01
371841.00	3756983.00	Commercial	4.34E-03	2.36E-04	4.67E-02	1.21E-02	1.23E-02	2.10E-04	1.37E-03	3.70E-03	1.22E-01
371941.00	3756983.00	Commercial	3.63E-03	1.98E-04	4.06E-02	1.41E-02	1.08E-02	1.74E-04	1.38E-03	3.30E-03	1.22E-01
371941.00	3757683.00	Commercial	5.78E-03	2.18E-04	6.22E-02	4.97E-02	1.55E-02	1.80E-04	3.49E-03	5.13E-03	3.07E-01
372041.00	3756983.00	Commercial	3.09E-03	1.68E-04	3.57E-02	1.25E-02	9.51E-03	1.45E-04	1.38E-03	2.94E-03	1.14E-01
372141.00	3756983.00	Commercial	2.65E-03	1.40E-04	2.98E-02	1.20E-02	7.83E-03	1.22E-04	1.09E-03	2.41E-03	9.72E-02
372241.00	3756983.00	Commercial	2.30E-03	1.19E-04	2.51E-02	1.08E-02	6.73E-03	1.04E-04	9.60E-04	2.08E-03	8.29E-02
372341.00	3756983.00	Commercial	2.03E-03	1.02E-04	2.19E-02	1.02E-02	5.88E-03	8.89E-05	8.76E-04	1.83E-03	7.51E-02
372441.00	3756983.00	Commercial	1.79E-03	8.76E-05	1.86E-02	9.69E-03	5.21E-03	7.73E-05	8.06E-04	1.61E-03	6.71E-02
372541.00	3756983.00	Commercial	1.66E-03	8.23E-05	1.76E-02	6.66E-03	4.56E-03	7.27E-05	6.19E-04	1.40E-03	5.55E-02
372641.00	3756983.00	Commercial	1.74E-03	1.09E-04	2.18E-02	5.88E-03	5.73E-03	9.48E-05	6.50E-04	1.73E-03	5.75E-02
373241.00	3756983.00	Commercial	1.28E-03	9.24E-05	1.80E-02	4.00E-03	4.77E-03	7.97E-05	4.94E-04	1.42E-03	4.28E-02
373341.00	3756983.00	Commercial	9.76E-04	6.64E-05	1.37E-02	3.22E-03	2.99E-03	4.96E-05	3.47E-04	9.01E-04	2.94E-02
373441.00	3756983.00	Commercial	9.08E-04	5.59E-05	1.13E-02	3.18E-03	2.96E-03	4.87E-05	3.43E-04	8.93E-04	3.01E-02
373441.00	3757583.00	Commercial	4.25E-03	2.36E-04	4.75E-02	1.48E-02	1.26E-02	2.08E-04	1.53E-03	3.83E-03	1.35E-01
373441.00	3757683.00	Commercial	3.05E-03	1.23E-04	2.74E-02	1.29E-02	7.10E-03	1.11E-04	1.10E-03	2.22E-03	1.01E-01
373441.00	3757783.00	Commercial	2.19E-03	8.36E-05	2.01E-02	1.24E-02	5.22E-03	7.37E-05	9.55E-04	1.67E-03	8.51E-02
373441.00	3757883.00	Commercial	2.11E-03	1.34E-04	2.84E-02	1.12E-02	5.51E-03	1.14E-04	1.03E-03	2.31E-03	8.78E-02
373441.00	3757983.00	Commercial	1.69E-03	9.33E-05	1.99E-02	7.07E-03	5.13E-03	8.13E-05	6.76E-04	1.57E-03	6.19E-02
373541.00	3756983.00	Commercial	8.27E-04	4.95E-05	1.01E-02	3.08E-03	2.65E-03	4.31E-05	3.19E-04	8.03E-04	2.80E-02
373541.00	3757083.00	Commercial	8.72E-04	3.77E-05	8.07E-03	3.39E-03	2.12E-03	3.39E-05	3.03E-04	6.56E-04	2.71E-02
373541.00	3757183.00	Commercial	1.07E-03	4.35E-05	9.45E-03	3.69E-03	2.61E-03	4.31E-05	3.48E-04	8.01E-04	3.16E-02
373541.00	3757283.00	Commercial	1.32E-03	5.08E-05	1.10E-02	4.19E-03	2.81E-03	4.71E-05	3.89E-04	8.64E-04	3.74E-02
373541.00	3757383.00	Commercial	1.81E-03	5.75E-05	1.30E-02	5.23E-03	3.21E-03	5.54E-05	4.71E-04	9.96E-04	4.86E-02
373541.00	3757483.00	Commercial	2.90E-03	1.26E-04	2.66E-02	9.22E-03	6.85E-03	1.15E-04	8.94E-04	2.09E-03	8.46E-02
373541.00	3757583.00	Commercial	3.72E-03	2.03E-04	4.12E-02	1.33E-02	1.09E-02	1.79E-04	1.55E-03	3.32E-03	1.19E-01
373541.00	3757683.00	Commercial	3.00E-03	1.32E-04	2.87E-02	1.26E-02	7.51E-03	1.18E-04	1.10E-03	2.33E-03	1.00E-01
366455.27	3763213.67	Residential/Commercial	1.48E-04	6.19E-06	1.45E-03	9.46E-04	3.90E-04	5.32E-06	7.18E-05	1.25E-04	5.96E-03
366669.62	3763342.53	Residential/Commercial	1.37E-04	5.15E-06	1.24E-03	8.45E-04	3.30E-04	4.49E-06	6.31E-05	1.07E-04	5.34E-03
366671.31	3762769.21	Residential/Commercial	1.74E-04	7.15E-06	1.67E-03	1.03E-03	4.47E-04	6.22E-06	8.00E-05	1.43E-04	6.73E-03
367494.53	3758314.82	Residential/Commercial	5.81E-04	2.15E-05	5.51E-03	3.95E-03	1.43E-03	1.85E-05	2.89E-04	4.64E-04	2.54E-02
367575.16	3764900.80	Residential/Commercial	1.15E-04	4.07E-06	9.88E-04	7.03E-04	2.64E-04	3.57E-06	5.18E-05	8.57E-05	4.36E-03
367638.49	3757975.16	Residential/Commercial	5.90E-04	2.69E-05	6.22E-03	3.82E-03	1.67E-03	2.29E-05	2.95E-04	5.31E-04	2.47E-02
367728.62	3761967.19	Residential/Commercial	1.87E-04	6.44E-06	1.54E-03	1.30E-03	4.89E-04	6.40E-06	9.05E-05	1.58E-04	8.06E-03
367787.59	3758292.62	Residential/Commercial	1.05E-03	3.36E-05	9.30E-03	8.12E-03	2.43E-03	2.86E-05	5.63E-04	8.12E-04	4.83E-02
367831.34	3763245.91	Residential/Commercial	1.72E-04	6.12E-06	1.49E-03	9.63E-04	3.87E-04	5.44E-06	7.29E-05	1.25E-04	6.37E-03
367900.00	3758500.00	Residential/Commercial	9.11E-04	2.76E-05	7.85E-03	6.70E-03	2.00E-03	2.39E-05	4.65E-04	6.67E-04	4.14E-02
367926.08	3763311.16	Residential/Commercial	1.64E-04	5.83E-06	1.40E-03	9.14E-04	3.69E-04	5.19E-06	6.91E-05	1.19E-04	6.00E-03
367964.98	3758232.97	Residential/Commercial	1.07E-03	3.20E-05	8.98E-03	7.56E-03	2.29E-03	2.68E-05	5.27E-04	7.64E-04	4.69E-02
367976.37	3763336.74	Residential/Commercial	1.59E-04	5.67E-06	1.36E-03	9.28E-04	3.63E-04	5.01E-06	6.94E-05	1.17E-04	5.90E-03
367978.91	3758390.10	Residential/Commercial	8.35E-04	2.34E-05	6.78E-03	5.34E-03	1.66E-03	2.10E-05	3.77E-04	5.49E-04	3.57E-02
368188.78	3758591.47	Residential/Commercial	7.65E-04	2.41E-05	6.66E-03	5.68E-03	1.73E-03	2.08E-05	3.96E-04	5.75E-04	3.44E-02
368501.11	3761632.38	Residential/Commercial	2.32E-04	7.90E-06	1.93E-03	1.36E-03	5.12E-04	7.02E-06	1.00E-04	1.66E-04	8.67E-03
368505.49	3758571.22	Residential/Commercial	8.69E-04	2.76E-05	7.67E-03	6.67E-03	2.00E-03	2.36E-05	4.62E-04	6.66E-04	3.99E-02
368673.29	3761677.69	Residential/Commercial	2.05E-04	7.08E-06	1.78E-03	1.32E-03	4.70E-04	6.20E-06	9.57E-05	1.53E-04	8.22E-03
368693.42	3758359.47	Residential/Commercial	9.04E-04	2.78E-05	7.76E-03	6.61E-03	2.00E-03	2.40E-05	4.60E-04	6.66E-04	4.05E-02
368842.92	3761590.39	Residential/Commercial	2.08E-04	7.18E-06	1.87E-03	1.57E-03	5.02E-04	6.11E-06	1.10E-04	1.66E-04	9.19E-03
368869.11	3754097.89	Residential/Commercial	6.59E-04	2.35E-05	6.05E-03	4.46E-03	1.57E-03	2.03E-05	3.24E-04	5.13E-04	2.83E-02
368869.83	3765067.00	Residential/Commercial	1.42E-04	5.17E-06	1.26E-03	8.72E-04	3.34E-04	4.52E-06	6.48E-05	1.08E-04	5.50E-03

Table 2-2.2
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2019 Mitigated Construction, Construction TAC Concentrations - Particulates Only

X	Y	Receptor Type	ammonium ($\mu g/m^3$)	arsenic ($\mu g/m^3$)	chlorine ($\mu g/m^3$)	copper ($\mu g/m^3$)	manganese ($\mu g/m^3$)	mercury ($\mu g/m^3$)	nickel ($\mu g/m^3$)	vanadium ($\mu g/m^3$)	sulfates ($\mu g/m^3$)
368969.99	3761647.20	Residential/Commercial	2.26E-04	4.67E-06	2.01E-03	1.66E-03	5.34E-04	6.57E-06	1.37E-04	1.76E-04	9.90E-03
368970.54	3754677.64	Residential/Commercial	6.28E-04	2.64E-05	6.47E-03	4.57E-03	1.72E-03	2.23E-05	3.37E-04	5.58E-04	2.83E-02
369007.11	3762513.11	Residential/Commercial	2.13E-04	7.49E-06	1.91E-03	1.52E-03	5.11E-04	6.43E-06	1.08E-04	1.68E-04	9.01E-03
369227.99	3762251.91	Residential/Commercial	2.30E-04	8.09E-06	2.03E-03	1.53E-03	5.40E-04	7.03E-06	1.11E-04	1.76E-04	9.32E-03
369242.37	3754695.62	Residential/Commercial	6.98E-04	2.79E-05	6.72E-03	4.44E-03	1.78E-03	2.42E-05	3.34E-04	5.72E-04	2.87E-02
369456.98	3762567.48	Residential/Commercial	2.26E-04	6.88E-06	1.66E-03	1.36E-03	4.54E-04	6.19E-06	9.45E-05	1.39E-04	7.16E-03
369504.00	3754702.08	Residential/Commercial	6.23E-04	2.40E-05	6.06E-03	4.67E-03	1.62E-03	2.03E-05	3.36E-04	5.30E-04	2.80E-02
369767.91	3761150.98	Residential/Commercial	2.52E-04	8.51E-06	2.18E-03	1.78E-03	5.86E-04	7.34E-06	1.26E-04	1.93E-04	1.05E-02
369809.34	3764567.65	Residential/Commercial	1.25E-04	4.57E-06	1.12E-03	7.94E-04	2.98E-04	3.98E-06	5.85E-05	9.65E-05	4.92E-03
369845.18	3754154.97	Residential/Commercial	7.20E-04	2.44E-05	6.58E-03	5.41E-03	1.72E-03	2.09E-05	3.81E-04	5.63E-04	3.28E-02
369848.41	3753976.49	Residential/Commercial	5.56E-04	2.04E-05	5.19E-03	3.63E-03	1.34E-03	1.77E-05	2.68E-04	4.35E-04	2.36E-02
370097.88	3760014.31	Residential/Commercial	4.12E-04	1.31E-05	3.61E-03	3.05E-03	9.36E-04	1.13E-05	2.13E-04	3.11E-04	1.85E-02
370150.95	3754699.75	Residential/Commercial	6.99E-04	2.64E-05	6.65E-03	4.90E-03	1.76E-03	2.26E-05	3.57E-04	5.72E-04	3.04E-02
370192.96	3758860.70	Residential/Commercial	9.35E-04	3.88E-05	7.66E-03	5.12E-03	1.88E-03	2.61E-05	3.80E-04	6.11E-04	3.72E-02
370243.17	3759622.98	Residential/Commercial	5.71E-04	2.46E-05	5.97E-03	3.86E-03	1.56E-03	2.10E-05	2.92E-04	5.02E-04	2.51E-02
370246.20	3754243.12	Residential/Commercial	6.42E-04	3.22E-05	7.13E-03	3.79E-03	1.91E-03	2.75E-05	3.09E-04	6.02E-04	2.59E-02
370290.74	3759464.60	Residential/Commercial	5.49E-04	2.33E-05	5.62E-03	3.06E-03	1.41E-03	2.03E-05	2.44E-04	4.48E-04	2.26E-02
370608.78	3762239.97	Residential/Commercial	1.74E-04	5.97E-06	1.53E-03	9.96E-04	3.84E-04	5.32E-06	7.47E-05	1.24E-04	6.85E-03
370614.80	3762181.53	Residential/Commercial	1.75E-04	5.98E-06	1.55E-03	9.86E-04	3.84E-04	5.33E-06	7.43E-05	1.24E-04	6.95E-03
370625.96	3763759.08	Residential/Commercial	1.34E-04	4.80E-06	1.19E-03	8.60E-04	3.15E-04	4.18E-06	6.30E-05	1.02E-04	5.32E-03
370723.56	3763867.78	Residential/Commercial	1.31E-04	4.68E-06	1.14E-03	7.72E-04	3.00E-04	4.13E-06	5.77E-05	9.69E-05	4.97E-03
370968.58	3759443.63	Residential/Commercial	5.07E-04	1.62E-05	4.32E-03	3.40E-03	1.12E-03	1.42E-05	2.42E-04	3.68E-04	2.12E-02
371139.14	3758179.30	Residential/Commercial	1.26E-03	6.51E-05	1.06E-02	6.35E-03	2.54E-03	3.67E-05	4.85E-04	8.17E-04	4.88E-02
371516.05	3762577.75	Residential/Commercial	2.51E-04	7.66E-06	1.85E-03	1.14E-03	4.76E-04	7.14E-06	8.80E-05	1.53E-04	8.13E-03
371721.40	3759371.61	Residential/Commercial	4.03E-04	1.50E-05	3.57E-03	2.27E-03	9.41E-04	1.33E-05	1.73E-04	3.02E-04	1.51E-02
371973.81	3758892.65	Residential/Commercial	5.23E-04	2.22E-05	5.24E-03	3.32E-03	1.39E-03	1.91E-05	2.54E-04	4.46E-04	2.14E-02
372687.72	3759513.01	Residential/Commercial	3.82E-04	1.31E-05	3.27E-03	2.66E-03	8.74E-04	1.13E-05	1.78E-04	2.85E-04	1.49E-02
372943.49	3761051.66	Residential/Commercial	2.60E-04	9.38E-06	2.31E-03	1.51E-03	5.97E-04	8.28E-06	1.14E-04	1.92E-04	1.01E-02
373546.52	3760907.48	Residential/Commercial	3.42E-04	1.12E-05	2.85E-03	2.06E-03	7.40E-04	9.94E-06	1.51E-04	2.41E-04	1.32E-02
373736.60	3756503.93	Residential/Commercial	5.42E-04	2.55E-05	5.67E-03	2.61E-03	1.47E-03	2.23E-05	2.23E-04	4.58E-04	1.99E-02
373758.20	3758943.23	Residential/Commercial	4.21E-03	6.57E-05	1.46E-02	6.35E-03	2.54E-03	3.67E-05	4.85E-04	8.17E-04	4.88E-02
373781.58	3755802.14	Residential/Commercial	4.41E-04	1.71E-05	4.15E-03	2.70E-03	1.08E-03	1.49E-05	2.04E-04	3.49E-04	1.76E-02
373814.20	3756040.57	Residential/Commercial	4.97E-04	2.36E-05	5.37E-03	2.64E-03	1.39E-03	2.05E-05	2.20E-04	4.34E-04	1.95E-02
373990.06	3753826.14	Residential/Commercial	3.32E-04	1.45E-05	3.20E-03	1.58E-03	8.43E-04	1.28E-05	1.32E-04	2.64E-04	1.15E-02
374057.73	3758196.51	Residential/Commercial	7.43E-04	3.68E-05	8.21E-03	2.97E-03	2.04E-03	3.29E-05	2.79E-04	6.26E-04	2.49E-02
374270.95	3758673.42	Residential/Commercial	1.08E-04	3.52E-05	7.37E-03	3.01E-03	1.85E-03	3.27E-05	2.70E-04	6.60E-04	2.24E-02
374561.05	3757642.94	Residential/Commercial	1.66E-03	7.93E-05	1.68E-02	6.67E-03	4.42E-03	7.04E-05	6.11E-04	1.36E-03	5.48E-02
374688.84	3758894.90	Residential/Commercial	7.59E-04	3.05E-05	6.42E-03	1.82E-03	1.61E-03	2.86E-05	1.94E-04	4.88E-04	2.00E-02
374693.96	3758983.17	Residential/Commercial	7.57E-04	3.06E-05	6.43E-03	1.81E-03	1.62E-03	2.86E-05	1.94E-04	4.89E-04	2.00E-02
374717.46	3762574.39	Residential/Commercial	1.91E-04	5.88E-06	1.41E-03	9.86E-04	4.43E-04	5.38E-06	9.86E-05	1.47E-04	8.35E-03
375503.80	3764537.77	Residential/Commercial	1.09E-04	3.91E-06	9.64E-04	6.14E-04	2.48E-04	3.47E-06	4.66E-05	7.97E-05	4.17E-03
375614.97	3760555.10	Residential/Commercial	9.15E-04	3.52E-05	8.25E-03	4.44E-03	2.11E-03	3.15E-05	3.57E-04	6.69E-04	3.28E-02
375718.04	3758204.95	Residential/Commercial	9.32E-04	3.27E-05	8.13E-03	5.17E-03	2.07E-03	2.91E-05	3.92E-04	6.66E-04	3.59E-02
375902.79	3764940.52	Residential/Commercial	6.58E-05	3.14E-06	7.74E-04	5.60E-04	2.06E-04	2.73E-06	4.11E-05	6.70E-05	3.44E-03
375908.38	3763938.71	Residential/Commercial	1.85E-04	6.15E-06	1.58E-03	1.22E-03	4.16E-04	5.37E-06	8.78E-05	1.37E-04	7.50E-03
375920.60	3762083.39	Residential/Commercial	2.37E-04	8.06E-06	1.96E-03	1.36E-03	5.19E-04	7.19E-06	1.01E-04	1.68E-04	8.62E-03
376709.15	3756388.48	Residential/Commercial	1.93E-04	7.89E-06	1.85E-03	1.19E-03	4.95E-04	6.83E-06	9.06E-05	1.59E-04	7.49E-03
376814.39	3754855.21	Residential/Commercial	1.77E-04	7.14E-06	1.63E-03	1.07E-03	4.31E-04	5.88E-06	8.19E-05	1.39E-04	6.94E-03
377050.15	3761774.29	Residential/Commercial	5.71E-04	2.06E-05	4.95E-03	2.82E-03	1.26E-03	1.86E-05	2.22E-04	4.01E-04	2.05E-02
377052.34	3761911.90	Residential/Commercial	4.65E-04	1.54E-05	3.81E-03	2.27E-03	9.56E-04	1.40E-05	1.76E-04	3.06E-04	1.66E-02
377227.14	3756422.42	Residential/Commercial	1.76E-04	7.11E-06	1.67E-03	1.07E-03	4.46E-04	6.17E-06	8.17E-05	1.43E-04	6.81E-03
377237.88	3763992.13	Residential/Commercial	1.58E-04	5.48E-06	1.35E-03	1.04E-03	3.57E-04	4.61E-06	7.53E-05	1.18E-04	6.21E-03
377313.01	3756205.13	Residential/Commercial	1.64E-04	6.44E-06	1.53E-03	1.02E-03	4.10E-04	5.59E-06	7.69E-05	1.32E-04	6.39E-03
377330.56	3760754.60	Residential/Commercial	3.68E-04	1.67E-05	3.48E-03	1.31E-03	9.17E-04	1.50E-05	1.23E-04	2.81E-04	1.10E-02
377342.37	3764027.27	Residential/Commercial	1.07E-04	4.04E-06	9.78E-04	6.82E-04	2.61E-04	3.51E-06	5.06E-05	8.44E-05	4.23E-03
377388.19	3762578.39	Residential/Commercial	2.10E-04	5.59E-06	1.49E-03	9.07E-04	3.55E-04	5.36E-06	6.91E-05	1.15E-04	7.08E-03
377563.47	3760340.44	Residential/Commercial	2.27E-04	8.24E-06	1.97E-03	1.39E-03	5.15E-04	7.37E-06	9.38E-05	1.68E-04	8.16E-03
377753.42	3759272.76	Residential/Commercial	3.17E-04	1.27E-05	2.91E-03	1.65E-03	7.67E-04	1.12E-05	1.31E-04	2.43E-04	1.12E-02
377839.66	3764649.02	Residential/Commercial	9.73E-05	3.57E-06	8.64E-04	5.90E-04	2.29E-04	3.13E-06	4.40E-05	7.41E-05	3.73E-03
377841.65	3762246.94	Residential/Commercial	4.84E-04	1.88E-05	4.42E-03	2.49E-03	1.14E-03	1.67E-05	1.98E-04	3.63E-04	1.77E-02
377908.39	3762504.84	Residential/Commercial	3.94E-04	1.42E-05	3.41E-03	1.97E-03	8.70E-04	1.28E-05	1.54E-04	2.77E-04	1.42E-02
377916.00	3755241.12	Residential/Commercial	1.56E-04	5.85E-06	1.38E-03	8.29E-04	3.61E-04	5.20E-06	6.43E-05	1.15E-04	5.59E-03
377924.86	3763642.88	Residential/Commercial	1.04E-04	3.78E-06	9.03E-04	5.46E-04	2.34E-04	3.38E-06	4.22E-05	7.47E-05	3.73E-03
377967.05	3762224.48	Residential/Commercial	5.14E-04	2.05E-05	4.77E-03	2.65E-03	1.24E-03	1.82E-05	2.11E-04	3.93E-04	1.88E-02
378003.52	3753139.05	Residential/Commercial	1.37E-04	5.90E-06	1.35E-03	7.33E-04	3.54E-04	5.17E-06	5.90E-05	1.12E-04	5.12E-03
378022.11	3755897.25	Residential/Commercial	2.01E-04	7.10E-06	1.73E-03	1.15E-03	4.53E-04	6.30E-06	8.62E-05	1.46E-04	7.46E-03
378066.59	3761432.90	Residential/Commercial	3.99E-04	1.62E-05	3.47E-03	1.17E-03	8.76E-04	1.49E-05	1.15E-04	2.68E-04	1.14E-02

Table 2-2.2
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2019 Mitigated Construction, Construction TAC Concentrations - Particulates Only

X	Y	Receptor Type	ammonium ($\mu g/m^3$)	arsenic ($\mu g/m^3$)	chlorine ($\mu g/m^3$)	copper ($\mu g/m^3$)	manganese ($\mu g/m^3$)	mercury ($\mu g/m^3$)	nickel ($\mu g/m^3$)	vanadium ($\mu g/m^3$)	sulfates ($\mu g/m^3$)
378209.66	3764122.39	Residential/Commercial	1.16E-04	3.92E-06	9.41E-04	5.74E-04	2.43E-04	3.56E-06	4.43E-05	7.78E-05	3.97E-03
378212.33	3753511.52	Residential/Commercial	1.32E-04	5.27E-06	1.24E-03	7.97E-04	3.31E-04	4.59E-06	6.07E-05	1.06E-04	5.08E-03
378223.51	3760237.39	Residential/Commercial	2.23E-04	8.28E-06	1.99E-03	1.28E-03	5.22E-04	7.30E-06	9.72E-05	1.68E-04	8.36E-03
378326.90	3764105.95	Residential/Commercial	1.08E-04	3.73E-06	8.95E-04	5.59E-04	2.33E-04	3.36E-06	4.28E-05	7.46E-05	3.78E-03
378366.51	3755075.26	Residential/Commercial	1.80E-04	6.20E-06	1.48E-03	8.59E-04	3.79E-04	5.64E-06	6.73E-05	1.21E-04	6.10E-03
378370.05	3759869.86	Residential/Commercial	2.41E-04	8.26E-06	2.22E-03	1.46E-03	5.88E-04	8.12E-06	1.10E-04	1.89E-04	9.40E-03
378781.96	3760336.17	Residential/Commercial	2.05E-04	7.56E-06	1.81E-03	1.18E-03	4.78E-04	6.67E-06	8.92E-05	1.54E-04	7.63E-03
378862.39	3757229.87	Residential/Commercial	2.66E-04	1.03E-05	2.42E-03	1.50E-03	6.40E-04	9.06E-06	1.15E-04	2.05E-04	9.78E-03
366900.00	3759500.00	Commercial	4.92E-04	1.69E-05	4.47E-03	3.91E-03	1.20E-03	1.42E-05	2.72

Table 2-2.2
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2019 Mitigated Construction, Construction TAC Concentrations - Particulates Only

X	Y	Receptor Type	ammonium ($\mu g/m^3$)	arsenic ($\mu g/m^3$)	chlorine ($\mu g/m^3$)	copper ($\mu g/m^3$)	manganese ($\mu g/m^3$)	mercury ($\mu g/m^3$)	nickel ($\mu g/m^3$)	vanadium ($\mu g/m^3$)	sulfates ($\mu g/m^3$)
372941.00	3757983.00	Commercial	1.29E-03	4.69E-05	1.13E-02	5.61E-03	2.78E-03	4.29E-05	4.62E-04	8.76E-04	4.58E-02
373035.50	3755453.68	Commercial	5.55E-04	2.21E-05	5.19E-03	3.08E-03	1.36E-03	1.94E-05	2.40E-04	4.33E-04	2.12E-02
373035.50	3755652.82	Commercial	5.83E-04	2.19E-05	5.34E-03	3.62E-03	1.41E-03	1.91E-05	2.71E-04	4.55E-04	2.38E-02
373041.00	3757783.00	Commercial	2.27E-03	8.61E-05	2.21E-02	1.62E-02	5.75E-03	7.35E-05	1.18E-03	1.88E-03	1.02E-01
373041.00	3757883.00	Commercial	1.71E-03	6.30E-05	1.64E-02	1.12E-02	4.14E-03	5.46E-05	8.28E-04	1.34E-03	7.52E-02
373041.00	3757983.00	Commercial	1.15E-03	4.82E-05	1.16E-02	5.42E-03	2.83E-03	4.29E-05	4.55E-04	8.87E-04	4.55E-02
373141.00	3757783.00	Commercial	2.50E-03	1.09E-04	2.57E-02	1.52E-02	6.74E-03	9.43E-05	1.19E-03	2.15E-03	1.03E-01
373141.00	3757883.00	Commercial	1.63E-03	5.47E-05	1.48E-02	1.12E-02	3.75E-03	4.75E-05	8.05E-04	1.23E-03	7.23E-02
373141.00	3757983.00	Commercial	1.10E-03	3.87E-05	9.99E-03	5.23E-03	2.36E-03	3.52E-05	4.18E-04	7.49E-04	4.32E-02
373241.00	3757783.00	Commercial	3.12E-03	2.06E-04	4.24E-02	1.48E-02	1.13E-02	1.76E-04	1.44E-03	3.43E-03	1.22E-01
373241.00	3757883.00	Commercial	1.82E-03	7.57E-05	1.83E-02	1.13E-02	4.74E-03	6.54E-05	8.66E-04	1.52E-03	7.66E-02
373241.00	3757983.00	Commercial	1.21E-03	3.86E-05	1.01E-02	5.87E-03	2.42E-03	3.55E-05	4.54E-04	7.76E-04	4.56E-02
373247.31	3756833.85	Commercial	9.40E-04	5.31E-05	1.11E-02	3.68E-03	2.88E-03	4.64E-05	3.64E-04	8.78E-04	3.25E-02
373250.82	3756654.89	Commercial	6.08E-04	2.28E-05	5.68E-03	3.30E-03	1.42E-03	2.02E-05	2.57E-04	4.52E-04	2.38E-02
373258.92	3755458.54	Commercial	5.03E-04	1.82E-05	4.53E-03	3.14E-03	1.18E-03	1.59E-05	2.32E-04	3.83E-04	2.06E-02
373278.35	3755647.97	Commercial	4.92E-04	1.76E-05	4.45E-03	2.91E-03	1.13E-03	1.55E-05	2.19E-04	3.65E-04	2.00E-02
373341.00	3757783.00	Commercial	2.72E-03	1.66E-04	3.49E-02	1.37E-02	9.23E-03	1.41E-04	1.26E-03	2.84E-03	1.08E-01
373341.00	3757883.00	Commercial	2.22E-03	1.35E-04	2.86E-02	1.14E-02	7.55E-03	1.15E-04	1.04E-03	2.32E-03	8.98E-02
373341.00	3757983.00	Commercial	1.44E-03	5.50E-05	1.30E-02	6.47E-03	3.25E-03	4.97E-05	5.34E-04	1.02E-03	5.16E-02
373441.00	3757083.00	Commercial	1.05E-03	5.92E-05	1.20E-02	3.62E-03	3.16E-03	5.21E-05	3.77E-04	9.57E-04	3.34E-02
373441.00	3757183.00	Commercial	1.13E-03	5.10E-05	1.07E-02	3.92E-03	2.80E-03	4.60E-05	3.71E-04	8.57E-04	3.34E-02
373441.00	3757283.00	Commercial	1.37E-03	5.25E-05	1.14E-02	4.35E-03	2.90E-03	4.87E-05	4.03E-04	8.95E-04	3.88E-02
373441.00	3757383.00	Commercial	1.94E-03	5.86E-05	1.34E-02	5.47E-03	3.28E-03	5.71E-05	4.88E-04	1.02E-03	5.14E-02
373441.00	3757483.00	Commercial	3.36E-03	1.52E-04	3.16E-02	1.06E-02	8.22E-03	1.38E-04	1.05E-03	2.51E-03	9.81E-02
373900.00	3759500.00	Commercial	8.46E-04	3.10E-05	7.42E-03	4.16E-03	1.89E-03	2.79E-05	3.29E-04	5.99E-04	3.06E-02
373900.00	3762500.00	Commercial	1.73E-04	7.39E-06	1.78E-03	1.23E-03	4.77E-04	6.26E-06	9.14E-05	1.54E-04	7.60E-03
373900.00	3763500.00	Commercial	2.02E-04	6.45E-06	1.63E-03	1.09E-03	4.16E-04	5.84E-06	8.14E-05	1.35E-04	7.37E-03
374900.00	3753500.00	Commercial	2.54E-04	8.88E-06	2.21E-03	1.51E-03	5.74E-04	7.85E-06	1.12E-04	1.86E-04	9.88E-03
374900.00	3758500.00	Commercial	4.44E-04	1.55E-05	3.76E-03	2.30E-03	9.68E-04	1.40E-05	1.77E-04	3.10E-04	1.61E-02
375900.00	3754500.00	Commercial	2.31E-04	9.12E-06	2.15E-03	1.29E-03	5.63E-04	8.01E-06	1.00E-04	1.80E-04	8.75E-03
375900.00	3757500.00	Commercial	7.06E-04	2.78E-05	6.11E-03	2.42E-03	1.55E-03	2.56E-05	2.20E-04	4.79E-04	2.11E-02
375900.00	3758500.00	Commercial	3.65E-04	1.49E-05	3.59E-03	1.83E-03	8.90E-04	1.32E-05	1.49E-04	2.80E-04	1.41E-02
375900.00	3759500.00	Commercial	3.56E-04	1.60E-05	3.55E-03	1.67E-03	9.27E-04	1.41E-05	1.42E-04	2.89E-04	1.24E-02
376900.00	3753500.00	Commercial	1.92E-04	7.92E-06	1.81E-03	1.05E-03	4.82E-04	6.95E-06	8.30E-05	1.53E-04	7.17E-03
376900.00	3754500.00	Commercial	1.54E-04	6.07E-06	1.44E-03	9.65E-04	3.86E-04	5.26E-06	7.26E-05	1.24E-04	6.02E-03
376900.00	3757500.00	Commercial	4.75E-04	1.71E-05	3.78E-03	1.65E-03	9.68E-04	1.59E-05	1.44E-04	3.01E-04	1.37E-02
376900.00	3763500.00	Commercial	1.51E-04	5.09E-06	1.27E-03	8.68E-04	3.29E-04	4.54E-06	6.45E-05	1.07E-04	5.68E-03
377900.00	3758500.00	Commercial	7.00E-04	2.61E-05	6.27E-03	3.81E-03	1.62E-03	2.32E-05	2.94E-04	5.19E-04	2.65E-02
378900.00	3754500.00	Commercial	2.11E-04	7.26E-06	1.80E-03	1.26E-03	4.73E-04	6.42E-06	9.33E-05	1.53E-04	8.07E-03
378900.00	3761500.00	Commercial	1.60E-04	6.27E-06	1.46E-03	8.19E-04	3.80E-04	5.58E-06	6.50E-05	1.20E-04	5.71E-03
379900.00	3753500.00	Commercial	9.51E-05	3.83E-06	9.06E-04	5.95E-04	2.42E-04	3.32E-06	4.50E-05	7.79E-05	3.73E-03
379900.00	3758500.00	Commercial	7.14E-04	3.20E-05	7.05E-03	3.38E-03	1.86E-03	2.83E-05	2.86E-04	5.80E-04	2.52E-02
380900.00	3764500.00	Commercial	3.72E-04	1.48E-05	3.44E-03	1.96E-03	8.98E-04	1.31E-05	1.55E-04	2.85E-04	1.37E-02
381900.00	3753500.00	Commercial	1.28E-04	4.68E-06	1.13E-03	7.25E-04	2.95E-04	4.14E-06	5.50E-05	9.48E-05	4.75E-03
381900.00	3758500.00	Commercial	4.55E-04	1.97E-05	4.32E-03	1.92E-03	1.12E-03	1.76E-05	1.67E-04	3.50E-04	1.51E-02
383900.00	3758500.00	Commercial	2.82E-04	1.12E-05	2.48E-03	1.06E-03	6.34E-04	1.02E-05	9.36E-05	1.97E-04	8.85E-03
383900.00	3759500.00	Commercial	2.89E-04	1.10E-05	2.57E-03	1.42E-03	6.61E-04	9.82E-06	1.13E-04	2.10E-04	1.03E-02
383900.00	3760500.00	Commercial	1.03E-04	4.09E-06	9.57E-04	5.85E-04	2.53E-04	3.59E-06	4.52E-05	8.08E-05	3.84E-03
383900.00	3761500.00	Commercial	1.34E-04	5.71E-06	1.29E-03	7.32E-04	3.45E-04	4.99E-06	5.83E-05	1.09E-04	4.98E-03
368085.00	3755395.00	Residential	9.71E-04	3.83E-05	9.03E-03	5.43E-03	2.36E-03	3.37E-05	4.21E-04	7.54E-04	3.68E-02
368185.00	3755395.00	Residential	1.13E-03	4.08E-05	9.79E-03	5.65E-03	2.50E-03	3.67E-05	4.43E-04	7.96E-04	4.08E-02
368285.00	3755395.00	Residential	1.00E-03	3.93E-05	9.26E-03	5.73E-03	2.44E-03	3.45E-05	4.41E-04	7.82E-04	3.81E-02
368385.00	3755395.00	Residential	1.00E-03	3.92E-05	9.31E-03	5.75E-03	2.44E-03	3.44E-05	4.43E-04	7.81E-04	3.84E-02
368485.00	3755395.00	Residential	9.95E-04	3.97E-05	9.47E-03	6.11E-03	2.50E-03	3.44E-05	4.64E-04	8.04E-04	3.98E-02
368585.00	3755395.00	Residential	1.02E-03	4.02E-05	9.60E-03	6.24E-03	2.54E-03	3.50E-05	4.73E-04	8.17E-04	4.04E-02
368685.00	3755395.00	Residential	1.03E-03	4.03E-05	9.51E-03	6.08E-03	2.53E-03	3.53E-05	4.64E-04	8.11E-04	3.97E-02
368785.00	3755395.00	Residential	1.03E-03	4.07E-05	9.67E-03	6.54E-03	2.60E-03	3.52E-05	4.90E-04	8.37E-04	4.11E-02
368885.00	3755395.00	Residential	1.01E-03	4.05E-05	9.81E-03	6.97E-03	2.64E-03	3.47E-05	5.15E-04	8.54E-04	4.28E-02
368985.00	3755395.00	Residential	1.01E-03	4.17E-05	1.01E-02	6.91E-03	2.69E-03	3.56E-05	5.15E-04	8.67E-04	4.32E-02
369085.00	3755395.00	Commercial	1.02E-03	4.45E-05	1.06E-02	7.13E-03	2.84E-03	3.77E-05	5.35E-04	9.15E-04	4.44E-02
369185.00	3755395.00	Commercial	1.03E-03	4.62E-05	1.10E-02	7.24E-03	2.94E-03	3.90E-05	5.46E-04	9.44E-04	4.55E-02
369285.00	3755395.00	Residential	1.04E-03	4.73E-05	1.14E-02	7.53E-03	3.02E-03	3.98E-05	5.67E-04	9.72E-04	4.77E-02
369385.00	3755395.00	Residential	1.41E-03	5.30E-05	1.37E-02	1.00E-02	3.54E-03	4.54E-05	7.27E-04	1.16E-03	6.36E-02
369485.00	3755395.00	Residential	1.41E-03	5.60E-05	1.43E-02	1.04E-02	3.73E-03	4.73E-05	7.60E-04	1.22E-03	6.53E-02
369585.00	3755395.00	Residential	1.45E-03	5.12E-05	1.36E-02	1.08E-02	3.54E-03	4.37E-05	7.65E-04	1.17E-03	6.65E-02
369685.00	3755395.00	Residential/Commercial	1.29E-03	4.44E-05	1.20E-02	9.70E-03	3.11E-03	3.78E-05	6.85E-04	1.03E-03	5.95E-02
369785.00	3755395.00	Residential	1.37E-03	4.50E-05	1.22E-02	9.86E-03	3.15E-03	3.88E-05	6.97E-04	1.04E-03	6.15E-02

Table 2-2.2
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2019 Mitigated Construction, Construction TAC Concentrations - Particulates Only

X	Y	Receptor Type	ammonium ($\mu g/m^3$)	arsenic ($\mu g/m^3$)	chlorine ($\mu g/m^3$)	copper ($\mu g/m^3$)	manganese ($\mu g/m^3$)	mercury ($\mu g/m^3$)	nickel ($\mu g/m^3$)	vanadium ($\mu g/m^3$)	sulfates ($\mu g/m^3$)
369885.00	3755395.00	Residential	1.27E-03	4.46E-05	1.18E-02	8.95E-03	3.03E-03	3.84E-05	6.42E-04	9.95E-04	5.67E-02
369985.00	3755395.00	Residential	1.10E-03	4.08E-05	1.08E-02	9.26E-03	2.89E-03	3.39E-05	6.47E-04	9.59E-04	5.36E-02
370085.00	3755395.00	Residential	1.09E-03	3.65E-05	9.90E-03	8.65E-03	2.62E-03	3.08E-05	6.00E-04	8.74E-04	5.07E-02
370185.00	3755395.00	Residential	1.00E-03	3.85E-05	1.00E-02	7.89E-03	2.64E-03	3.23E-05	5.63E-04	8.68E-04	4.76E-02
370285.00	3755395.00	Residential	1.11E-03	4.51E-05	1.15E-02	9.15E-03	3.09E-03	3.75E-05	6.52E-04	1.01E-03	5.38E-02
370377.81	3755313.33	Residential	1.02E-03	4.34E-05	1.06E-02	7.67E-03	2.85E-03	3.64E-05	5.63E-04	9.24E-04	4.70E-02
370477.81	3755313.33	Residential	9.67E-04	3.98E-05	9.98E-03	7.74E-03	2.69E-03	3.31E-05	5.57E-04	8.79E-04	4.59E-02
370577.81	3755313.33	Residential	1.08E-03	5.19E-05	1.20E-02	7.48E-03	3.23E-03	4.37E-05	5.76E-04	1.03E-03	4.76E-02
370677.81	3755313.33	Commercial	1.30E-03	6.48E-05	1.48E-02	7.79E-03	3.87E-03	5.53E-05	6.34E-04	1.22E-03	5.54E-02
370777.81	3755313.33	Commercial	1.37E-03	6.77E-05	1.54E-02	8.34E-03	4.06E-03	5.78E-05	6.72E-04	1.28E-03	5.77E-02
370877.81	3755313.33	Commercial	1.40E-03	6.97E-05	1.54E-02	7.37E-03	4.05E-03	6.03E-05	6.23E-04	1.26E-03	5.41E-02
370977.81	3755313.33	Commercial	1.13E-03	5.27E-05	1.16E-02	5.97E-03	3.10E-03	4.59E-05	4.92E-04	9.73E-04	4.18E-02
371077.81	3755313.33	Commercial	1.06E-03	4.87E-05	1.08E-02	6.06E-03	2.92E-03	4.21E-05	4.86E-04	9.23E-04	4.07E-02
371177.81	3755313.33	Commercial	9.31E-04	4.26E-05	9.58E-03	4.93E-03	2.52E-03	3.71E-05	4.05E-04	7.91E-04	3.54E-02
371277.81	3755313.33	Commercial	8.11E-04	3.49E-05	8.28E-03	5.60E-03	2.23E-03	2.96E-05	4.20E-04	7.18E-04	3.49E-02
371377.81	3755313.33	Commercial	7.15E-04	2.72E-05	6.95E-03	5.61E-03	1.87E-03	2.29E-05	3.99E-04	6.15E-04	3.30E-02
371477.81	3755313.33	Commercial	6.67E-04	2.25E-05	6.02E-03	5.27E-03	1.61E-03	1.90E-05	3.66E-04	5.36E-04	3.05E-02
371577.81	3755313.33	Commercial	6.31E-04	1.98E-05	5.29E-03	4.30E-03	1.38E-03	1.73E-05	3.04E-04	4.56E-04	2.64E-02
371677.81	3755313.33	Commercial	5.88E-04	1.90E-05	5.07E-03	4.50E-03	1.36E-03	1.63E-05	3.12E-04	4.55E-04	2.60E-02
371777.81	3755313.33	Commercial	5.61E-04	1.85E-05	4.90E-03	4.30E-03	1.32E-03	1.57E-05	2.99E-04	4.39E-04	2.49E-02
371871.82	3755232.57	Commercial	5.38E-04	1.84E-05	4.79E-03	4.03E-03	1.29E-03	1.57E-05	2.83E-04	4.26E-04	2.36E-02
371971.82	3755232.57	Commercial	5.28E-04	2.06E-05	5.12E-03	3.92E-03	1.38E-03	1.74E-05	2.83E-04	4.50E-04	2.34E-02
372071.82	3755232.57	Commercial	5.16E-04	2.32E-05	5.57E-03	3.82E-03	1.49E-03	1.96E-05	2.85E-04	4.81E-04	2.38E-02
372171.82	3755232.57	Commercial	5.36E-04	2.32E-05	5.57E-03	3.82E-03	1.49E-03	1.96E-05	2.85E-04	4.81E-04	2.38E-02
372271.82	3755232.57	Commercial	5.50E-04	2.34E-05	5.63E-03	3.93E-03	1.51E-03	1.98E-05	2.91E-04	4.89E-04	2.41E-02
372371.82	3755232.57	Commercial	5.45E-04	2.19E-05	5.31E-03	3.77E-03	1.42E-03	1.87E-05	2.78E-04	4.61E-04	2.32E-02
372471.82	3755232.57	Commercial	5.57E-04	2.40E-05	5.60E-03	3.45E-03	1.49E-03	2.07E-05	2.66E-04	4.76E-04	2.25E-02
372571.82	3755232.57	Commercial	5.53E-04	2.46E-05	5.58E-03	3.01E-03	1.47E-03	2.14E-05	2.43E-04	4.64E-04	2.10E-02
372671.82	3755232.57	Commercial	5.36E-04	2.42E-05	5.40E-03	2.93E-03	1.44E-03	2.10E-05	2.37E-04	4.55E-04	2.01E-02
372771.82	3755232.57	Commercial	5.12E-04	2.32E-05	5.17E-03	2.83E-03	1.39E-03	2.02E-05	2.28E-04	4.37E-04	1.92E-02
372871.82	3755232.57	Commercial	5.02E-04	2.23E-05	5.00E-03	2.76E-03	1.34E-03	1.94E-05	2.22E-04	4.22E-04	1.88E-02
372971.82	3755232.57	Commercial	5.09E-04	2.18E-05	4.91E-03	2.82E-03	1.32E-03	1.90E-05	2.24E-04	4.18E-04	1.88E-02

ug/m^3 = micrograms per cubic meter

Attachment 2 - Acute Non-Cancer Health Hazard Calculations

Operation

2-3 2024 With Project vs. 2024 Without Project

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Table 3-2.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2024 With Project v. 2024 Without Project
Operation TAC Concentrations

Receptor Location		acrolein ($\mu g/m^3$)	acrylonitrile ($\mu g/m^3$)	arsenic ($\mu g/m^3$)	benzene ($\mu g/m^3$)	butadiene, 1,3- ($\mu g/m^3$)	carbon tetrachloride ($\mu g/m^3$)	chlorine ($\mu g/m^3$)	chromium ($\mu g/m^3$)	copper ($\mu g/m^3$)	cyanide ($\mu g/m^3$)	dibromoethane, 1,2- ($\mu g/m^3$)	dichloroethane, 1,2- ($\mu g/m^3$)	dichloropropene, 1,3- ($\mu g/m^3$)	diethyl phthalate ($\mu g/m^3$)	ethylbenzene ($\mu g/m^3$)	formaldehyde ($\mu g/m^3$)	hexachlorobutadiene ($\mu g/m^3$)	hydrogen chloride ($\mu g/m^3$)	manganese ($\mu g/m^3$)	mercury ($\mu g/m^3$)	methyl ethyl ketone ($\mu g/m^3$)	methyl isobutyl ketone ($\mu g/m^3$)	naphthalene ($\mu g/m^3$)	nickel ($\mu g/m^3$)	phenol ($\mu g/m^3$)	propionaldehyde ($\mu g/m^3$)	styrene ($\mu g/m^3$)	sulfates ($\mu g/m^3$)
Commercial - Onsite	REL/Guideline	403	403	404	403	403	403	404	404	404	403	403	403	403	403	403	403	403	403	404	403	403	403	403	404	403	403	404
Chronic Average Acute Hazard-->		-1.49E-03	-6.30E-04	1.15E-02	-1.13E-03	-1.13E-03	-1.13E-03	1.13E-02	1.13E-02	1.13E-02	-1.13E-03	-1.13E-03	-1.13E-03	-1.13E-03	-1.13E-03	-1.13E-03	-1.13E-03	-1.13E-03	-1.13E-03	1.13E-02	-1.13E-03	-1.13E-03	-1.13E-03	-1.13E-03	1.13E-02	-1.13E-03	-1.13E-03	1.13E-02
Average Onsite Concentration-->		-1.96E-02	-7.15E-03	1.13E-01	-1.28E-02	-1.28E-02	-1.28E-02	2.43E-01	1.13E-01	1.13E-01	-1.28E-02	-1.28E-02	-1.28E-02	-1.28E-02	-1.28E-02	-1.28E-02	-1.28E-02	-1.28E-02	-1.28E-02	1.13E-01	-1.28E-02	-1.28E-02	-1.28E-02	-1.28E-02	1.13E-01	-1.28E-02	-1.28E-02	1.13E-01
Maximum Onsite Concentration-->		-2.98E-02	-1.09E-02	1.72E-01	-1.95E-02	-1.95E-02	-1.95E-02	3.70E-01	1.72E-01	1.72E-01	-1.95E-02	-1.95E-02	-1.95E-02	-1.95E-02	-1.95E-02	-1.95E-02	-1.95E-02	-1.95E-02	-1.95E-02	1.72E-01	-1.95E-02	-1.95E-02	-1.95E-02	-1.95E-02	1.72E-01	-1.95E-02	-1.95E-02	1.72E-01
Commercial - Offsite	REL/Guideline	403	403	404	403	403	403	404	404	404	403	403	403	403	403	403	403	403	403	404	403	403	403	403	404	403	403	404
Maximum Offsite Concentration-->		3.27E-02	3.32E-02	5.03E-01	1.05E-01	1.05E-01	1.05E-01	1.46E+00	5.03E-01	5.03E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01	5.03E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01	5.03E-01	1.05E-01	1.05E-01	5.03E-01
Minimum Offsite Concentration-->		-6.78E-02	-4.01E-02	7.43E-01	-7.43E-01	-7.43E-01	-7.43E-01	1.46E+00	7.43E-01	7.43E-01	-7.43E-01	-7.43E-01	-7.43E-01	-7.43E-01	-7.43E-01	-7.43E-01	-7.43E-01	-7.43E-01	-7.43E-01	7.43E-01	-7.43E-01	-7.43E-01	-7.43E-01	-7.43E-01	7.43E-01	-7.43E-01	-7.43E-01	7.43E-01
Residential	REL/Guideline	403	403	404	403	403	403	404	404	404	403	403	403	403	403	403	403	403	403	404	403	403	403	403	404	403	403	404
Maximum Offsite Concentration-->		3.27E-02	3.32E-02	5.03E-01	1.05E-01	1.05E-01	1.05E-01	1.46E+00	5.03E-01	5.03E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01	5.03E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01	5.03E-01	1.05E-01	1.05E-01	5.03E-01
Maximum Offsite Concentration-->		-6.78E-02	-4.01E-02	7.43E-01	-7.43E-01	-7.43E-01	-7.43E-01	1.46E+00	7.43E-01	7.43E-01	-7.43E-01	-7.43E-01	-7.43E-01	-7.43E-01	-7.43E-01	-7.43E-01	-7.43E-01	-7.43E-01	-7.43E-01	7.43E-01	-7.43E-01	-7.43E-01	-7.43E-01	-7.43E-01	7.43E-01	-7.43E-01	-7.43E-01	7.43E-01
Minimum Offsite Concentration-->		-3.98E-02	-4.23E-02	1.16E-01	2.76E-02	2.76E-02	2.76E-02	1.46E+00	1.16E-01	1.16E-01	2.76E-02	2.76E-02	2.76E-02	2.76E-02	2.76E-02	2.76E-02	2.76E-02	2.76E-02	2.76E-02	1.16E-01	2.76E-02	2.76E-02	2.76E-02	2.76E-02	1.16E-01	2.76E-02	2.76E-02	1.16E-01
Acute REL		470	7	27	1,300	20	680	2,300	0.2	200	150	700	400	20	2,000	4,000	55	2	21	90	2	13,000	7,000	9	0.3	5,800	800	1,000	100
Commercial - Onsite																												
Chronic Average Acute Hazard-->		-3.19E-03	-1.34E-03	5.03E-04	-4.91E-05	-4.91E-05	-4.91E-05	4.91E-04	5.03E-04	5.03E-04	-4.91E-05	-4.91E-05	-4.91E-05	-4.91E-05	-4.91E-05	-4.91E-05	-4.91E-05	-4.91E-05	-4.91E-05	5.03E-04	-4.91E-05	-4.91E-05	-4.91E-05	-4.91E-05	5.03E-04	-4.91E-05	-4.91E-05	5.03E-04
Chronic Maximum Acute Hazard-->		-4.26E-03	-1.52E-03	7.49E-04	-8.48E-05	-8.48E-05	-8.48E-05	1.58E-03	7.49E-04	7.49E-04	-8.48E-05	-8.48E-05	-8.48E-05	-8.48E-05	-8.48E-05	-8.48E-05	-8.48E-05	-8.48E-05	-8.48E-05	7.49E-04	-8.48E-05	-8.48E-05	-8.48E-05	-8.48E-05	7.49E-04	-8.48E-05	-8.48E-05	7.49E-04
Commercial - Offsite																												
Offsite Maximum Acute Hazard-->		6.97E-03	7.08E-03	1.07E-03	-2.72E-04	-2.72E-04	-2.72E-04	3.11E-03	1.07E-03	1.07E-03	-2.72E-04	-2.72E-04	-2.72E-04	-2.72E-04	-2.72E-04	-2.72E-04	-2.72E-04	-2.72E-04	-2.72E-04	1.07E-03	-2.72E-04	-2.72E-04	-2.72E-04	-2.72E-04	1.07E-03	-2.72E-04	-2.72E-04	1.07E-03
Offsite Minimum Acute Hazard-->		-8.48E-03	-3.19E-03	1.58E-03	-1.80E-04	-1.80E-04	-1.80E-04	3.11E-03	1.58E-03	1.58E-03	-1.80E-04	-1.80E-04	-1.80E-04	-1.80E-04	-1.80E-04	-1.80E-04	-1.80E-04	-1.80E-04	-1.80E-04	1.58E-03	-1.80E-04	-1.80E-04	-1.80E-04	-1.80E-04	1.58E-03	-1.80E-04	-1.80E-04	1.58E-03
Residential																												
Offsite Maximum Acute Hazard-->		7.31E-05	6.33E-03	3.49E-03	5.11E-07	2.20E-07	6.32E-07	1.88E-05	3.49E-03	3.49E-03	6.20E-06	9.86E-05	6.20E-06	1.58E-07	1.58E-07	2.60E-06	9.00E-06	1.58E-06	2.60E-04	3.49E-03	2.60E-04	2.78E-04	2.60E-04	2.60E-04	4.80E-05	2.60E-04	2.60E-04	4.80E-05
Offsite Minimum Acute Hazard-->		-1.88E-04	-1.34E-03	1.58E-03	-1.80E-04	-1.80E-04	-1.80E-04	3.11E-03	1.58E-03	1.58E-03	-1.80E-04	-1.80E-04	-1.80E-04	-1.80E-04	-1.80E-04	-1.80E-04	-1.80E-04	-1.80E-04	-1.80E-04	1.58E-03	-1.80E-04	-1.80E-04	-1.80E-04	-1.80E-04	1.58E-03	-1.80E-04	-1.80E-04	1.58E-03

Table 2-3.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2024 With Project v. 2024 Without Project
Operation TAC Concentrations

Receptor Number	X	Y	Receptor Type	acetaldehyde (µg/m³)	acrolein (µg/m³)	benzene (µg/m³)	formaldehyde (µg/m³)	methyl alcohol (µg/m³)	methyl ethyl ketone (µg/m³)	styrene (µg/m³)	toluene (µg/m³)	xylenes, total (µg/m³)	1,3-Butadiene (µg/m³)	ethyl benzene (µg/m³)	ammonium (µg/m³)	arsenic (µg/m³)	chlorine (µg/m³)	copper (µg/m³)	manganese (µg/m³)	mercury (µg/m³)	nickel (µg/m³)	vanadium (µg/m³)	sulfides (µg/m³)
141	369141	3795467	Fenceline	1.63E-05	1.67E-05	3.17E-04	2.03E-04	1.51E-03	3.03E-04	1.57E-05	7.38E-04	6.13E-04	9.97E-05	1.43E-04	8.03E-05	9.77E-07	1.26E-04	4.13E-04	2.48E-07	8.89E-06	9.83E-06	9.51E-04
142	369217	3795091	Fenceline	-6.89E-04	-3.14E-04	-5.97E-03	-3.83E-03	-2.86E-04	-5.71E-05	-2.89E-04	-1.39E-02	-1.15E-02	-1.31E-03	-2.54E-03	2.18E-04	1.30E-06	3.36E-04	3.88E-04	1.17E-06	6.72E-07	2.40E-05	2.67E-05	2.94E-03
143	369233	3795466	Fenceline	6.70E-04	3.07E-04	5.83E-03	3.75E-03	2.79E-04	5.58E-05	2.79E-04	1.36E-02	1.14E-02	1.28E-03	2.48E-03	8.06E-05	1.76E-07	1.26E-04	4.43E-04	4.32E-07	2.48E-07	8.87E-06	9.86E-06	6.42E-04
144	369268	3795146	Fenceline	1.03E-03	4.84E-04	9.40E-03	6.02E-03	4.30E-04	8.99E-05	4.50E-04	2.19E-02	1.83E-02	2.07E-03	4.00E-03	1.49E-04	8.66E-07	2.45E-04	2.59E-04	7.82E-07	4.49E-07	1.62E-05	1.78E-05	1.83E-03
145	369272	3795257	Fenceline	6.89E-04	3.15E-04	5.99E-03	3.84E-03	2.87E-04	5.73E-05	2.87E-04	1.40E-02	1.17E-02	1.31E-03	2.55E-03	1.06E-04	1.03E-06	2.96E-04	3.24E-04	1.02E-06	5.68E-07	2.07E-05	2.33E-05	2.23E-03
146	369323	3795087	Fenceline	8.34E-04	3.82E-04	7.26E-03	4.66E-03	3.47E-04	6.95E-05	3.47E-04	1.69E-02	1.41E-02	1.60E-03	3.09E-03	1.19E-04	6.86E-07	2.04E-04	2.06E-04	6.21E-07	3.56E-07	1.29E-05	1.41E-05	1.51E-03
147	369328	3795304	Fenceline	-1.08E-04	-4.93E-05	-9.37E-04	-6.01E-04	-4.49E-05	-8.96E-06	-4.47E-05	-2.18E-03	-1.84E-03	-2.06E-04	-3.99E-04	1.47E-05	1.14E-07	3.28E-05	3.89E-05	1.29E-07	8.86E-08	3.20E-06	3.52E-06	3.91E-04
148	369330	3795495	Fenceline	1.26E-03	5.78E-04	1.10E-02	7.05E-03	5.26E-04	1.09E-04	5.26E-04	2.56E-02	2.14E-02	2.42E-03	4.68E-03	8.41E-05	5.00E-07	1.24E-04	4.51E-04	2.59E-07	9.22E-06	1.03E-05	9.44E-04	
149	369342	3795740	Fenceline	-3.99E-04	-1.81E-04	-3.44E-03	-2.20E-03	-1.65E-04	-3.29E-05	-1.65E-04	-8.01E-03	-6.75E-03	-7.57E-04	-1.46E-03	1.53E-04	9.10E-07	2.45E-04	2.72E-04	8.22E-07	4.72E-07	1.69E-05	1.87E-05	1.84E-03
150	369357	3795439	Fenceline	2.79E-04	1.28E-04	2.43E-03	1.56E-03	1.16E-04	2.32E-05	1.16E-04	5.66E-03	4.77E-03	5.35E-04	1.03E-03	3.36E-05	3.74E-07	1.03E-04	3.36E-04	1.07E-06	6.13E-07	2.23E-05	2.48E-05	2.32E-03
151	369357	3795607	Fenceline	1.70E-04	7.78E-05	1.48E-03	9.48E-04	7.08E-05	1.42E-05	7.08E-05	3.45E-03	2.88E-03	3.25E-04	6.30E-04	2.06E-05	1.40E-06	3.77E-04	4.20E-04	1.27E-06	7.29E-07	2.61E-05	2.89E-05	2.83E-03
152	369409	3795059	Fenceline	5.93E-04	2.71E-04	5.16E-03	3.31E-03	2.47E-04	4.94E-05	2.47E-04	1.20E-02	1.01E-02	1.14E-03	2.19E-03	7.12E-05	1.31E-06	3.96E-04	4.49E-04	1.68E-06	9.56E-07	3.42E-05	3.80E-05	3.49E-03
153	369427	3795643	Fenceline	1.85E-03	8.47E-04	1.61E-02	1.03E-02	7.70E-04	1.54E-04	7.70E-04	3.75E-02	3.13E-02	3.54E-03	6.85E-03	8.57E-05	5.09E-07	1.27E-04	1.52E-04	4.59E-06	2.64E-07	9.40E-06	1.05E-05	9.87E-04
154	369449	3795894	Fenceline	9.43E-05	4.29E-05	8.60E-04	5.50E-04	4.11E-05	8.22E-06	4.11E-05	2.00E-03	1.67E-03	1.89E-04	3.65E-04	1.34E-05	1.04E-07	3.00E-05	3.56E-05	1.18E-07	8.11E-08	2.93E-06	3.22E-06	3.58E-04
155	369524	3795942	Fenceline	2.13E-03	9.78E-04	1.85E-02	1.19E-02	8.86E-04	1.77E-04	8.86E-04	4.32E-02	3.61E-02	4.08E-03	7.89E-03	8.79E-05	5.24E-07	1.34E-04	1.56E-04	4.72E-06	2.70E-07	9.63E-06	1.08E-05	1.02E-03
156	369549	3795853	Fenceline	-1.91E-05	-8.77E-06	-1.67E-04	-1.07E-04	-7.99E-06	-1.60E-06	-7.98E-06	-3.90E-04	-3.27E-04	-3.67E-05	-7.10E-05	2.61E-06	1.99E-08	5.85E-06	6.93E-06	2.29E-08	1.58E-08	5.70E-07	6.27E-07	6.97E-05
157	369621	3795460	Fenceline	2.26E-03	1.04E-03	1.97E-02	1.26E-02	9.42E-04	1.88E-04	9.42E-04	4.59E-02	3.83E-02	4.33E-03	8.38E-03	8.79E-05	5.24E-07	1.40E-04	1.67E-04	4.72E-06	2.71E-07	9.72E-06	1.08E-05	1.05E-03
158	369722	3795772	Fenceline	2.73E-04	1.24E-04	2.35E-03	1.50E-03	1.12E-04	2.24E-05	1.12E-04	5.47E-03	4.61E-03	5.17E-04	9.99E-04	1.78E-05	1.24E-07	3.34E-05	3.98E-05	1.12E-07	6.91E-08	2.49E-06	2.74E-06	3.35E-04
159	369710	3795581	Fenceline	-6.00E-05	-2.73E-05	-4.33E-04	-2.76E-04	-2.05E-05	-4.17E-06	-2.04E-05	-1.01E-03	-8.46E-04	-9.58E-05	-1.83E-04	2.59E-06	5.01E-08	1.47E-05	4.63E-06	1.47E-06	7.98E-07	2.87E-05	3.16E-05	1.60E-03
160	369718	3795439	Fenceline	2.37E-03	1.09E-03	2.06E-02	1.32E-02	9.88E-04	1.98E-04	9.88E-04	4.81E-02	4.02E-02	4.54E-03	8.79E-03	9.12E-05	5.42E-07	1.47E-04	1.62E-04	4.90E-06	2.81E-07	1.01E-05	1.12E-05	1.10E-03
161	369737	3795287	Fenceline	4.24E-04	1.94E-04	3.66E-03	2.37E-03	1.77E-04	3.53E-05	1.77E-04	8.61E-03	7.18E-03	8.12E-04	1.57E-03	1.69E-05	1.04E-07	2.94E-05	3.13E-05	9.52E-07	5.47E-07	1.97E-05	2.27E-05	2.26E-03
162	369788	3795398	Fenceline	4.09E-04	1.88E-04	3.53E-03	2.27E-03	1.69E-04	3.38E-05	1.69E-04	8.24E-03	6.88E-03	7.76E-04	1.51E-03	1.66E-05	9.86E-07	3.01E-04	2.99E-04	8.15E-07	5.12E-07	1.89E-05	2.03E-05	2.23E-03
163	369788	3795439	Fenceline	1.53E-04	7.03E-05	1.33E-03	8.56E-04	6.39E-05	1.28E-05	6.38E-05	3.11E-03	2.59E-03	2.93E-04	5.68E-04	1.66E-05	9.86E-07	3.01E-04	2.99E-04	8.15E-07	5.12E-07	1.89E-05	2.03E-05	2.22E-03
164	369815	3795498	Fenceline	1.84E-03	8.42E-04	1.60E-02	1.03E-02	7.66E-04	1.53E-04	7.66E-04	3.73E-02	3.12E-02	3.52E-03	6.82E-03	9.68E-05	5.76E-07	1.53E-04	1.72E-04	5.19E-06	2.99E-07	1.07E-05	1.19E-05	1.16E-03
165	369883	3795296	Fenceline	4.71E-05	2.16E-05	4.10E-04	2.62E-04	1.96E-05	3.92E-06	1.96E-05	9.56E-04	7.94E-04	9.00E-05	1.75E-04	1.68E-05	9.98E-07	3.04E-04	2.97E-04	8.25E-07	5.18E-07	1.91E-05	2.06E-05	2.24E-03
166	369912	3795496	Fenceline	9.43E-04	2.50E-04	4.75E-03	3.04E-03	2.27E-04	4.54E-05	2.27E-04	1.11E-02	9.24E-03	1.04E-03	2.02E-03	9.97E-05	5.92E-07	1.58E-04	1.77E-04	5.34E-06	3.08E-07	1.10E-05	1.22E-05	1.18E-03
167	369919	3795283	Fenceline	1.89E-05	3.62E-05	6.87E-04	4.40E-04	3.29E-05	6.58E-06	3.29E-05	1.60E-03	1.34E-03	1.52E-04	2.94E-04	1.68E-05	9.98E-07	3.04E-04	2.97E-04	8.25E-07	5.18E-07	1.91E-05	2.06E-05	2.24E-03
168	370009	3795455	Fenceline	-1.03E-03	-4.74E-04	-9.00E-03	-5.77E-03	-4.31E-04	-8.62E-05	-4.31E-04	-2.10E-02	-1.75E-02	-1.98E-03	-3.83E-03	1.02E-04	6.06E-07	1.66E-04	1.81E-04	5.47E-06	3.14E-07	1.12E-05	1.25E-05	1.18E-03
169	370056	3795282	Fenceline	-1.90E-04	-8.73E-05	-1.66E-03	-1.06E-03	-7.94E-05	-1.59E-05	-7.94E-05	-3.87E-03	-3.23E-03	-3.65E-04	-7.06E-04	3.28E-06	1.86E-07	5.67E-05	5.84E-05	1.76E-06	1.01E-06	3.65E-05	4.01E-05	4.22E-03
170	370161	3795443	Fenceline	-8.59E-04	-3.94E-04	-7.48E-03	-4.80E-03	-3.58E-04	-7.16E-05	-3.58E-04	-1.74E-02	-1.46E-02	-1.65E-03	-3.18E-03	1.19E-04	7.06E-07	1.93E-04	2.11E-04	6.37E-06	3.65E-07	1.30E-05	1.45E-05	1.37E-03
171	370131	3795282	Fenceline	-8.09E-05	-3.71E-05	-7.04E-04	-4.52E-04	-3.37E-05	-6.76E-06	-3.37E-05	-1.64E-03	-1.37E-03	-1.55E-04	-3.00E-04	3.47E-06	2.23E-06	6.35E-04	6.69E-04	2.02E-06	1.16E-06	4.18E-05	4.60E-05	4.74E-03
172	370204	3795452	Fenceline	-6.13E-04	-2.81E-04	-5.34E-03	-3.42E-03	-2.55E-04	-5.11E-05	-2.55E-04	-1.24E-02	-1.04E-02	-1.17E-03	-2.27E-03	1.17E-04	6.94E-07	1.90E-04	2.08E-04	6.27E-06	3.59E-07	1.28E-05	1.43E-05	1.35E-03
173	370227	3795199	Fenceline	2.05E-04	9.39E-05	1.78E-03	1.14E-03	8.54E-05	1.71E-05	8.54E-05	4.16E-03	3.48E-03	3.93E-04	7.60E-04	2.60E-06	1.55E-06	4.00E-04	4.62E-04	1.40E-06	8.02E-07	2.91E-05	3.19E-05	3.41E-03
174	370223	3795231	Fenceline	1.34E-04	6.15E-05	1.17E-03	7.49E-04	5.59E-05	1.12E-05	5.59E-05	2.72E-03	2.28E-03	2.57E-04	4.97E-04	2.72E-06	1.63E-06	4.20E-04	4.85E-04	1.47E-06	8.42E-07	3.05E-05	3.35E-05	3.58E-03
175	370228	3795283	Fenceline	4.14E-04	1.90E-04	3.60E-03	2.31E-03	1.72E-04	3.45E-05	1.72E-04	8.40E-03	7.02E-03	7.93E-04	1.53E-03	2.39E-06	1.42E-06	4.13E-04	4.27E-04	1.29E-06	7.39E-07	2.67E-05	2.93E-05	3.07E-03
176	370253	3795199	Fenceline	1.33E-04	6.09E-05	1.15E-03	7.53E-04	5.82E-05	1.16E-05	5.82E-05	2.74E-03	2.23E-03	2.54E-04	4.91E-04	2.72E-06	1.63E-06	4.20E-04	4.85E-04	1.47E-06	8.42E-07	3.05E-05	3.35E-05	3.58E-03
177	370301	3795490	Fenceline	5.29E-04	2.43E-04	4.61E-03	2.96E-03	2.21E-04	4.41E-05	2.21E-04	1.07E-02	8.99E-03	1.01E-03	1.96E-03	1.22E-06	7.24E-07	1.72E-04	2.17E-04	6.62E-06	3.76E-07	1.37E-05	1.53E-05	1.48E-03
178	370309	3795177	Fenceline	3.76E-04	1.72E-04	3.27E-03	2.10E-03	1.57E-04	3.13E-05	1.57E-04	7.59E-03	6.37E-03	7.19E-04	1.39E-03	1.22E-06	7.24E-07	1.72E-04	2.17E-04	6.62E-06	3.76E-07	1.37E-05	1.53E-05	1.48E-03
179	370367	3795222	Fenceline	-2.09E-04	-9.59E-05	-1.82E-03	-1.17E-03	-8.72E-05	-1.74E-05	-8.72E-05	-4.24E-03	-3.55E-03	-4.01E-04	-7.75E-04	2.66E-06	1.58E-06	4.57E-04	4.73E-04	1.43E-06	8.20E-07	2.99E-05	3.25E-05	3.40E-03
180	370308	3795449	Fenceline	-4.93E-04	-2.26E-04	-4.30E-03	-2.77E-03	-2.06E-04	-4.11E-05	-2.06E-04	-1.00E-02	-8.37E-03	-9.45E-04	-1.83E-03	1.26E-06	7.51E-07	1.92E-04	2.25E-04	6.87E-06	3.90E-07	1.42E-05	1.59E-05	1.39E-03
181	370444	3795178	Fenceline	6.71E-04	-2.62E-04	9.97E-03	-3.18E-03	-2.38E-04	-4.76E-05	-2.38E-04	-1.16E-02	-9.68E-03	-1.09E-03	-2.11E-03	1.26E-06	7.51E-07	1.92E-04	2.25E-04	6.87E-06	3.90E-07	1.42E-05	1.59E-05	1.39E-03
182	370423	3795284	Fenceline	5.51E-04	2.52E-04	4.79E-03	3.07E-03	2.29E-04	4.59E-05	2.29E-04	1.12E-02	9.34E-03	1.06E-03	2.04E-03	2.18E-06	1.30E-06	3.67E-04	3.88E-04	1.17E-06	6.73E-07	2.42E-05	2.67E-05	2.74E-03
183	370443	3795238	Fenceline	-4.37E-04	-2.00E-04	-3.80E-03	-2.44E-03	-1.82E-04	-3.64E-05	-1.82E-04	-8.85E-03	-7.41E-03	-8.37E-04	-1.62E-03	1.17E-06	6.94E-07	1.90E-04	2.08E-04	6.27E-06	3.59E-07	1.28E-05	1.43E-05	1.35E-03
184	370465	3795455	Fenceline	-1.40E-03	-6.77E-04	-1.29E-02	-8.24E-03	-6.15E-04	-1.23E-04	-6.15E-04	-3.00E-02	-2.50E-02	-2.83E-03	-5.48E-03	1.29E-06	7.42E-07	2.04E-04	2.22E-04	6.70E-06	3.85E-07	1.40E-05	1.57E-05	1.43E-03
185	370523	3795199	Fenceline	8.65E-04	2.68E-04	5.03E-03	3.27E-03	2.38E-04	4.77E-05	2.44E-04	1.16E-02	9.68E-03	1.09E-03	2.11E-03	2.18E-06	1.30E-06	3.67E-04	3.88E-04	1.17E-06	6.73E-07	2.42E-05	2.67E-05	2.74E-03
186	370558	3795459	Fenceline	2.84E-05	1.30E-05	2.47E-04	1.58E-04	1.18E-05	2.36E-06	1.18E-05	5.76E-04	4.81E-04	5.44E-05	1.05E-04	1.67E-06	9.93E-07	2.38E-04	2.97E-04	8.95E-07	5.16E-07	1.83E-05	2.05E-05	1.82E-03
187	370622	3795281	Fenceline	1.17E-03	5.14E-04	1.01E-02	6.51E-03	4.86E-04	9.70E-05	4.91E-04	3.19E-02	1.98E-02	2.23E-03	4.32E-03	1.29E-06	7.42E-07	2.04E-04	2.22E-04	6.70E-06	3.85E-07	1.40E-05	1.57E-05	1.43E-03
188	370625	3795498	Fenceline	1.64E-04	7.64E-05	1.34E-03	8.98E-04	6.40E-05	1.28E-05	6.40E-05	3.12E-03	2.61E-03	2.96E-04	5.70E-04	1.66E-06	9.78E-07	2.39E-04	2.93E-04	8.82E-07	5.08E-07	1.80E-05	2.02E-05	1.82E-03
189	370649	3795178	Fenceline	4.70E-04	2.15E-04	4.09E-03	2.62E-03	1.96E-04	3.92E-05	1.96E-04	9.54E-03	7.97E-03	9.01E-04	1.74E-03	1.66E-06	9.78E-07	2.39E-04	2.93E-04	8.82E-07	5.08E-07	1.80E-05	2.02E-05	1.82E-03
190	370722	3795283	Fenceline	2.42E-04	1.77E-04	2.17E-03	4.89E-03	4.45E-04	8.88E-05	3.43E-04	1.67E-02	1.40E-02	1.98E-03	3.00E-03	3.83E-06	6.16E-06	6.82E-04	2.06E-04	1.18E-06	4.24E-05	4.85E-05	4.66E-05	1.03E-03
191	370757	3795433	Fenceline	6.08E-04	2.79E-04	5.30E-03	3.40E-03	2.53E-04	5.07E-05	2.53E-04	1.23E-02	1.03E-02	1.17E-03	2.26E-03	1.43E-06	8.49E-07	2.06E-04	2.54E-04	7.69E-07	4.44E-07	1.58E-05	1.75E-05	1.57E-03
192	370793	3795199	Fenceline	2.23E-03	5.58E-04	1.09E-02	6.79E-03	5.07E-04	1.01E-04	5.12E-04	2.39E-02	2.07E-02	2.32E-03	4.51E-03	1.43E-06	8.49E-07	2.06E-04	2.54E-04	7.69E-07	4.44E-07	1.58E-05	1.75E-05	1.57E-03
193	370797	3795107	Fenceline	1.92E-03	8.82E-04	1.68E-02	1.07E-02	8.02E-04	1.60E-04	8.02E-04	3.91E-02	3.26E-02	3.69E-03	7.14E-03	4.46E-06	2.65E-06	7.28E-04	7.94E-04	2.39E-06	1.38E-06	4.94E-05	5.46E-05	5.46E-03
194	370798	3795194	Fenceline	2.41E-04	1.10E-04	2.09E-03	1.33E-03	9.97E-05	1.99E-05	9.97E-05	4.85E-03	4.04E-03	4.58E-04	8.86E-04	4.46E-06	2.65E-06	7.28E-04	7.94E-04	2.39E-06	1.38E-06	4.94E-05	5.46E-05	5.21E-03
195	370799	3795248	Fenceline	8.15E-04	3.74E-04	7.10E-03	4.95E-03	3.40E-04	6.79E-05	3.40E-04	1.65E-02	1.38E-02	1.56E-03	3.02E-03	3.53E-06	2.10E-06	5.98E-04	6.30E-04	1.91E-06	1.09E-06	4.00E-05	4.33E-05	5.10E-03
196	370800	3795281	Fenceline	8.65E-04	3.96E-04	7.47E-03	4.75E-03	3.60E-04	7.20E-05	3.60E-04	1.73E-02	1.44E-02	1.65E-03	3.20E-03	3.53E-06	2.10E-06	5.98E-04	6.30E-04	1.91E-06	1.09E-06	4.00E-05	4.33E-05	5.10E-03
197	370808	3795529	Fenceline	8.49E-04	3.89E-04	7.39E-03	4.76E-03	3.54E-04	7.07E-05	3.54E-04	1.72E-02	1.44E-02	1.63E-03	3.15E-03	1.49E-05	8.89E-07	2.01E-04	2.57E-04	7.74E-06	4.48E-07	1.58E-05	1.77E-05	1.54E-03
198	370859	3795101	Fenceline	1.28E-03	5.87E-04	1.12E-02	7.03E-03	5.24E-04	1.05E-04	5.24E-04	2.54E-02	2.13E-02	2.43E-03	4.63E-03	1.49E-05	8.89E-07	2.01E-04	2.57E-04	7.74E-06	4.48E-07	1.58E-05	1.77E-05	1.54E-03
199	370861	3795785	Fenceline	2.65E-03	1.17E-03	2.22E-02	1.42E-02	1.06E-03	2.13E-04	1.06E-03	5.18E-02	4.33E-02	4.89E-03	9.44E-03	4.05E-05	2.41E-06	7.94E-04	7.23E-04	2.19E-06	1.25E-06	4.68E-05	4.95E-05	5.81E-03
200	370864	3795560	Fenceline	1.15E-03	5.26E-04	9.99E-03	6.40E-03	4.76E-04	9.56E-05	4.79E-04	2.33E-02	1.94E-02	2.20E-03	4.25E-03	1.50E-05	8.90E-07	2.03E-04	2.60E-04	8.01E-06	4.62E-07	1.63E-05	1.82E-05	1.56E-03
201	370866	3795591	Fenceline	1.28E-03	5.87E-04	1.14E-02	9.02E-03	6.72E-04	1.35E-04	6.73E-04	3.28E-02	2.74E-02	3.10E-03	5.96E-03	1.52E-05	9.03E-07	2.12E-04	2.73E-04	8.13E-06	4.68E-07	1.65E-05	1.84E-05	1.58E-03
202	370909	3795789	Fenceline	2.61E-03	1.19E-03	2.27E-02	1.46E-02	1.09E-03	2.17E-04	1.09E-03	5.29E-02	4.42E-02	5.00E-03	9.67E-03	8.33E-04	5.14E-06	1.29E-04	2.87E-04	1.64E-06	5.94E-06	6.52E-05	6.85E-05	6.85E-03
203	370930	3795647	Fenceline	-3.21E-03	-1.47E-03	-2.80E-02	-1.79E-02	-1.34E-03	-2.68E-04	-1.34E-03	-6.52E-02	-5.45E-02	-6.16E-03	-1.19E-02	1.58E-06	9.41E-07	2.23E-04	2.42E-04	7.48E-06	4.89E-07	1.73E-05	1.94E-05	1.71E-03
204	370932	3795706	Fenceline	-2.10E-03	-9.63E-04	-1.83E-02	-1.17E-02	-8.75E-04	-1.75E-04	-8.75E-04	-4.26E-02	-3.56E-02	-4.03E-03	-7.79E-03	1.70E-06	1.01E-06	2.34E-04	3.02E-04	9.09E-06	5.23E-07	1.85E-05	2.08E-05	1.80E-03
205	370959	3795178	Fenceline	-6.18E-03	-2.84E-03	-5.43E-02	-2.89E-02	-2.16E-03	-4.32E-04	-2.16E-03	-1.05E-01	-8.77E-02	-9.94E-03	-1.92E-02	2.43E-03	1.46E-05	9.73E-03	3.47E-03	1.35E-05	7.51E-06	2.91E-04	2.98E-04	8.66E-03
206	370960	3795296	Fenceline	-7.82E-03	-3.58E-03	-6.81E-02	-4.37E-02	-3.26E-03	-6.52E-04	-3.26E-03	-1.59E-01	-1.33E-01	-1.50E-02	-2.90E-02	1.51E-03	9.03E-06	2.42E-03	2.69E-03	8.38E-06	4.62E-06	2.00E-04	2.30E-04	2.16E-03
207	370961	3795724	Fenceline	-1.01E-02	-4.62E-03	-8.78E-02	-5.63E-02	-4.20E-03	-8.41E-04	-4.20E-03	-2.05E-01	-1.72E-01	-1.93E-02	-3.74E-02	1.38E-03	8.26E-06	2.21E-03	2.46E-03	7.66E-06	4.22E-06	1.64E-04	1.88E-04	1.77E-03
208	370962	3795132	Fenceline	-1.30E-02	-6.25E-03	-1.19E-01	-7.62E-02	-5.68E-03	-1.14E-03	-5.68E-03	-2.77E-01	-2.31E-01	-2.62E-02	-5.06E-02	1.12E-03	6.86E-06	1.64E-03	1.99E-03	6.01E-06	3.44E-06	1.23E-04	1.37E-04	1.26E-03
209	370963	3795470	Fenceline	-2.64E-02	-1.25E-02	-2.30E-01	-1.47E-01	-1.10E-02	-2.20E-03	-1.10E-02	-5.35E-01	-4.47E-01	-5.05E-02	-9.77E-02	8.78E-04	5.30E-06	1.30E-03	1.58E-03	4.69E-06	2.70E-06	9.60E-05	1.07E-04	9.85E-03

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Table 2-3.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2024With Project v. 2024 Without Project
Operation TAC Concentrations

Receptor Number	X	Y	Receptor Type	acetaldehyde (µg/m³)	acrolein (µg/m³)	benzene (µg/m³)	formaldehyde (µg/m³)	methyl alcohol (µg/m³)	methyl ethyl ketone (µg/m³)	styrene (µg/m³)	toluene (µg/m³)	xylenes, total (µg/m³)	1,3-Butadiene (µg/m³)	ethyl benzene (µg/m³)	ammonium (µg/m³)	arsenic (µg/m³)	chlorine (µg/m³)	copper (µg/m³)	manganese (µg/m³)	mercury (µg/m³)	nickel (µg/m³)	vanadium (µg/m³)	sulfides (µg/m³)
1	369131	3795945	Residential/Commercial	1.96E-04	8.98E-05	1.71E-03	1.03E-03	8.17E-05	1.63E-05	8.17E-05	3.98E-03	3.33E-03	3.77E-04	7.30E-04	4.13E-05	2.48E-07	6.89E-06	9.83E-06	3.28E-07	3.78E-06	7.27E-04	1.93E-04	1.22E-03
2	370191	3795848	Residential/Commercial	7.90E-04	3.62E-04	6.88E-03	4.41E-03	3.29E-04	6.58E-05	3.29E-04	1.60E-02	1.34E-02	1.51E-03	2.93E-03	1.68E-04	1.04E-06	2.90E-04	3.81E-04	1.23E-06	6.72E-07	2.54E-05	2.09E-04	1.22E-03
3	370191	3795838	Residential/Commercial	1.91E-04	8.76E-05	1.67E-03	1.01E-03	7.97E-05	1.59E-05	7.97E-05	3.88E-03	3.25E-03	3.68E-04	7.12E-04	4.03E-05	2.42E-07	6.72E-06	8.77E-06	3.20E-07	3.68E-06	7.09E-04	1.41E-04	1.22E-03
4	369788	3795325	Residential/Commercial	5.07E-04	2.32E-04	4.42E-03	2.83E-03	2.11E-04	4.23E-05	2.11E-04	1.03E-02	8.60E-03	9.72E-04	1.88E-03	1.08E-04	6.68E-07	1.86E-05	2.45E-05	8.44E-07	9.72E-06	1.86E-03	1.78E-04	1.09E-03
5	370047	3795261	Residential/Commercial	7.02E-04	3.22E-04	6.11E-03	3.92E-03	2.92E-04	5.85E-05	2.92E-04	1.42E-02	1.19E-02	1.34E-03	2.60E-03	1.49E-04	9.24E-07	2.58E-05	3.39E-05	1.12E-06	5.99E-07	2.26E-05	1.86E-04	1.08E-03
6	371099	3794219	Residential/Commercial	1.87E-03	8.56E-04	1.63E-02	1.04E-02	7.78E-04	1.56E-04	7.78E-04	3.79E-02	3.17E-02	3.58E-03

Table 2-3.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2024 With Project v. 2024 Without Project
Operation TAC Concentrations

Receptor Number	X	Y	Receptor Type	acetaldehyde	acrolein	benzene	formaldehyde	methyl alcohol	methyl ethyl ketone	styrene	toluene	xylenes, total	1,3-Butadiene	ethyl benzene	ammonium	arsenic	asbestos	chlorine	copper	manganese	mercury	nickel	vanadium	sulfates
				(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
421	367275	3798000	Residential	4.24E-04	4.23E-04	9.04E-03	5.16E-03	3.85E-04	7.70E-05	3.81E-04	1.87E-03	1.57E-02	7.77E-03	5.42E-03	8.67E-05	3.85E-07	1.32E-04	1.78E-04	3.58E-05	2.04E-07	1.34E-05	9.09E-06	2.33E-01	3.33E-04
422	367395	3798098	Residential	4.77E-04	2.18E-04	4.19E-03	2.66E-03	1.99E-04	3.97E-05	1.99E-04	9.67E-03	8.08E-03	3.13E-04	1.77E-03	7.00E-05	4.96E-07	1.77E-04	1.29E-04	3.76E-05	2.16E-07	7.77E-06	8.57E-06	8.76E-04	
423	367380	3798140	Residential	5.63E-04	6.96E-05	1.33E-03	8.46E-04	6.33E-05	1.07E-05	6.33E-05	3.08E-03	2.57E-03	2.91E-04	5.63E-04	2.35E-05	5.84E-07	9.80E-05	1.39E-04	4.60E-05	2.54E-07	3.44E-06	1.37E-05	1.42E-03	
424	367900	3799100	Residential	-1.60E-04	-7.33E-05	-1.39E-03	-8.92E-04	-6.66E-05	-1.33E-05	-6.66E-05	-3.24E-03	-2.71E-03	-3.06E-04	-5.93E-04	3.19E-05	9.90E-07	3.49E-05	5.43E-05	6.68E-05	1.72E-07	9.84E-06	3.91E-06	4.05E-04	
425	367900	3798200	Residential	4.26E-04	1.99E-04	3.73E-03	2.36E-03	1.76E-04	3.47E-05	1.73E-04	8.46E-03	7.24E-03	8.21E-04	1.56E-03	3.72E-05	2.21E-07	9.46E-05	6.68E-05	2.00E-05	1.18E-07	4.14E-06	4.56E-06	4.80E-04	
426	367900	3794600	Residential	6.19E-04	2.84E-04	5.39E-03	3.46E-03	2.59E-04	5.16E-05	2.58E-04	1.26E-02	1.05E-02	1.19E-03	2.30E-03	2.22E-05	1.32E-07	3.67E-05	3.99E-05	1.19E-05	6.84E-08	2.46E-06	2.71E-06	2.74E-04	
427	367909	3798099	Residential	-2.05E-04	-1.01E-04	-2.23E-03	-1.43E-03	-1.10E-04	-2.14E-05	-1.07E-04	-5.19E-03	-4.34E-03	-4.91E-04	-9.51E-04	1.84E-05	1.59E-06	5.60E-05	8.71E-05	1.07E-04	2.31E-07	1.58E-05	6.27E-06	6.49E-04	
428	368182	3798016	Residential	-2.19E-04	-1.00E-04	-1.91E-03	-1.22E-03	-9.12E-05	-1.82E-05	-9.12E-05	-4.44E-03	-3.71E-03	-4.19E-04	-8.13E-04	1.98E-05	2.10E-06	3.63E-05	3.67E-05	9.12E-05	1.72E-07	9.84E-06	3.91E-06	4.05E-04	
429	368417	3797988	Residential	-8.23E-04	-3.78E-04	-7.21E-03	-4.62E-03	-3.45E-04	-6.90E-05	-3.45E-04	-1.68E-02	-1.40E-02	-1.58E-03	-3.07E-03	1.78E-04	1.06E-06	2.95E-04	3.17E-04	9.60E-05	5.48E-07	1.97E-05	2.18E-05	2.20E-03	
430	368516	3797979	Residential	-8.58E-04	-3.94E-04	-7.49E-03	-4.80E-03	-3.58E-04	-7.16E-05	-3.58E-04	-1.74E-02	-1.46E-02	-1.64E-03	-3.19E-03	1.28E-04	1.28E-06	2.27E-04	2.68E-04	9.96E-05	5.48E-07	1.97E-05	2.18E-05	2.20E-03	
431	368765	3798080	Residential	-8.70E-04	-3.99E-04	-7.58E-03	-4.86E-03	-3.63E-04	-7.25E-05	-3.63E-04	-1.77E-02	-1.48E-02	-1.67E-03	-3.23E-03	1.91E-04	1.16E-06	2.99E-04	3.21E-04	9.72E-05	5.48E-07	1.97E-05	2.18E-05	2.20E-03	
432	368900	3798040	Residential	-3.63E-04	-1.68E-04	-3.19E-03	-2.02E-03	-1.51E-04	-3.02E-05	-1.51E-04	-7.36E-03	-6.14E-03	-6.94E-04	-1.34E-03	1.22E-04	1.28E-06	2.66E-04	3.21E-04	9.72E-05	5.48E-07	1.97E-05	2.18E-05	2.20E-03	
433	368900	3799600	Residential	3.89E-04	1.83E-04	3.48E-03	2.23E-03	1.66E-04	3.33E-05	1.66E-04	8.10E-03	6.77E-03	7.65E-04	1.48E-03	2.08E-04	1.24E-06	3.38E-04	3.71E-04	1.12E-04	6.42E-07	2.31E-05	2.55E-05	2.54E-03	
434	368900	3797500	Residential	3.82E-04	1.69E-04	3.20E-03	2.18E-03	1.51E-04	3.02E-05	1.51E-04	7.47E-03	6.14E-03	6.94E-04	1.34E-03	1.91E-04	1.16E-06	3.12E-04	3.43E-04	1.04E-04	5.92E-07	2.13E-05	2.35E-05	2.34E-03	
435	368900	3798250	Residential	7.33E-04	3.39E-04	6.38E-03	4.09E-03	3.05E-04	6.11E-05	3.05E-04	1.49E-02	1.24E-02	1.41E-03	2.72E-03	3.22E-05	1.97E-07	5.37E-05	6.74E-05	1.73E-05	9.94E-08	3.58E-06	3.95E-06	4.01E-04	
436	368900	3798300	Residential	5.34E-04	2.49E-04	4.69E-03	2.98E-03	2.22E-04	4.48E-05	2.22E-04	1.09E-02	9.06E-03	1.02E-03	1.99E-03	2.29E-04	1.37E-06	3.72E-04	4.09E-04	1.23E-04	7.06E-07	2.61E-05	2.88E-05	2.86E-03	
437	368900	3794600	Residential	9.23E-04	4.28E-04	8.09E-03	5.16E-03	3.87E-04	7.74E-05	3.87E-04	1.88E-02	1.57E-02	1.78E-03	3.44E-03	2.13E-05	1.27E-07	3.54E-05	3.76E-05	1.14E-05	6.57E-08	2.36E-06	2.61E-06	2.64E-04	
438	368944	3798140	Residential	-2.79E-04	-1.28E-04	-2.43E-03	-1.55E-03	-1.16E-04	-2.32E-05	-1.16E-04	-5.65E-03	-4.72E-03	-5.34E-04	-1.03E-03	1.93E-05	1.34E-06	4.72E-05	7.35E-05	9.03E-05	2.17E-07	1.49E-05	5.92E-06	6.12E-04	
439	369268	3798147	Residential	4.03E-04	1.85E-04	3.51E-03	2.25E-03	1.68E-04	3.36E-05	1.68E-04	8.17E-03	6.84E-03	7.73E-04	1.50E-03	1.96E-04	1.16E-06	3.14E-04	3.48E-04	1.06E-04	6.04E-07	2.21E-05	2.44E-05	2.42E-03	
440	369268	3798098	Residential	-1.20E-04	-5.79E-05	-1.10E-03	-7.05E-04	-5.26E-05	-1.05E-05	-5.26E-05	-2.56E-03	-2.14E-03	-2.42E-04	-4.69E-04	2.06E-05	1.23E-06	3.23E-04	3.67E-04	1.11E-04	6.37E-07	2.28E-05	2.53E-05	2.44E-03	
441	369324	3797999	Residential	8.19E-04	3.78E-04	7.13E-03	4.57E-03	3.41E-04	6.82E-05	3.41E-04	1.66E-02	1.39E-02	1.57E-03	3.04E-03	1.94E-04	1.06E-06	2.85E-04	3.23E-04	9.74E-05	5.63E-07	2.01E-05	2.22E-05	2.16E-03	
442	369426	3798942	Residential	6.65E-05	3.00E-05	5.70E-04	3.86E-04	2.73E-05	5.46E-06	2.73E-05	-1.33E-03	-1.11E-03	1.26E-04	2.43E-04	2.18E-04	1.29E-06	3.41E-04	3.75E-04	1.26E-04	6.75E-07	2.37E-05	2.57E-05	2.57E-03	
443	369600	3798035	Residential	-1.70E-04	-7.77E-05	-1.48E-03	-9.46E-04	-7.06E-05	-1.41E-05	-7.06E-05	-3.43E-03	-2.87E-03	-3.25E-04	-6.29E-04	2.54E-04	1.59E-06	4.18E-04	4.84E-04	1.63E-04	8.74E-07	3.07E-05	3.32E-05	3.33E-03	
444	369775	3798633	Residential	3.63E-04	1.66E-04	3.16E-03	2.03E-03	1.51E-04	3.03E-05	1.51E-04	7.37E-03	6.16E-03	6.96E-04	1.35E-03	3.00E-04	1.76E-06	4.98E-04	5.34E-04	1.61E-04	9.25E-07	3.33E-05	3.67E-05	3.72E-03	
445	369804	3798200	Residential	1.12E-04	5.19E-05	9.78E-04	6.27E-04	4.68E-05	9.36E-06	4.68E-05	-2.28E-03	-1.90E-03	2.16E-04	4.16E-04	2.98E-04	1.76E-06	4.69E-04	5.13E-04	1.54E-04	8.74E-07	3.07E-05	3.32E-05	3.33E-03	
446	369900	3794600	Residential	-4.08E-05	-1.87E-05	-3.65E-04	-2.28E-04	-1.70E-05	-3.40E-06	-1.70E-05	-8.28E-04	-6.92E-04	-7.82E-05	-1.51E-04	9.03E-05	5.06E-07	1.26E-04	1.61E-04	4.83E-05	2.75E-07	9.87E-06	1.11E-05	9.85E-04	
447	369900	3795100	Residential	2.18E-04	-1.00E-04	-1.95E-03	-1.22E-03	-9.08E-05	-1.82E-05	-9.08E-05	-4.43E-03	-3.70E-03	-4.18E-04	-8.10E-04	1.41E-04	8.74E-07	2.31E-04	2.84E-04	8.53E-05	4.84E-07	1.74E-05	1.96E-05	1.74E-03	
448	369900	3795600	Residential	1.98E-03	9.06E-04	1.72E-02	1.10E-02	8.24E-04	1.65E-04	8.24E-04	4.01E-02	3.35E-02	3.79E-03	7.33E-03	2.91E-04	1.28E-06	3.64E-04	3.84E-04	1.16E-04	6.66E-07	2.40E-05	2.64E-05	2.72E-03	
449	369900	3796150	Residential	7.99E-04	3.66E-04	6.99E-03	4.46E-03	3.33E-04	6.66E-05	3.33E-04	1.62E-02	1.36E-02	1.53E-03	2.99E-03	4.16E-04	2.47E-06	7.44E-04	8.25E-04	2.46E-04	1.36E-06	4.62E-05	5.10E-05	5.20E-03	
450	369900	3796200	Residential	8.67E-04	3.97E-04	7.59E-03	4.84E-03	3.61E-04	7.23E-05	3.61E-04	1.76E-02	1.48E-02	1.66E-03	3.24E-03	3.02E-04	1.79E-06	5.39E-04	5.98E-04	1.78E-04	9.84E-07	3.47E-05	3.83E-05	3.77E-03	
451	369900	3794600	Residential	-2.14E-05	-9.83E-06	-1.87E-04	-1.20E-04	-8.94E-06	-1.79E-06	-8.94E-06	-4.35E-04	-3.64E-04	-4.11E-05	-7.95E-05	2.44E-05	1.46E-07	4.11E-05	4.34E-05	1.31E-05	7.53E-08	2.71E-06	2.99E-06	3.07E-04	
452	370000	3798331	Residential	2.18E-04	1.00E-04	1.91E-03	1.22E-03	9.08E-05	1.82E-05	9.08E-05	4.44E-03	3.71E-03	4.19E-04	8.12E-04	3.12E-04	1.92E-06	5.08E-04	6.08E-04	1.81E-04	1.00E-06	3.57E-05	3.97E-05	3.97E-03	
453	370184	3798338	Residential	4.03E-04	1.85E-04	3.51E-03	2.25E-03	1.68E-04	3.36E-05	1.68E-04	8.18E-03	6.83E-03	7.72E-04	1.49E-03	3.39E-04	1.99E-06	5.86E-04	6.98E-04	2.08E-04	1.16E-06	4.10E-05	4.56E-05	4.18E-03	
454	370425	3798137	Residential	8.79E-04	3.99E-04	7.68E-03	4.87E-03	3.63E-04	7.26E-05	3.63E-04	1.77E-02	1.49E-02	1.67E-03	3.24E-03	3.16E-04	1.86E-06	5.44E-04	6.31E-04	1.89E-04	1.04E-06	3.63E-05	4.04E-05	3.97E-03	
455	370702	3798338	Residential	1.65E-03	7.08E-04	1.30E-02	8.63E-03	6.44E-04	1.29E-04	6.44E-04	3.14E-02	2.62E-02	2.96E-03	5.73E-03	3.65E-03	2.17E-05	5.84E-03	6.51E-03	1.99E-03	1.13E-05	4.04E-04	4.47E-04	4.39E-02	
456	370781	3798338	Residential	1.65E-03	7.07E-04	1.30E-02	8.62E-03	6.43E-04	1.29E-04	6.43E-04	3.14E-02	2.62E-02	2.96E-03	5.72E-03	3.65E-03	2.17E-05	5.84E-03	6.51E-03	1.99E-03	1.13E-05	4.04E-04	4.47E-04	4.39E-02	
457	370900	3795600	Residential	3.63E-03	1.67E-03	3.16E-02	2.03E-02	1.51E-03	3.03E-04	1.51E-03	7.37E-02	6.16E-02	6.96E-03	1.35E-02	3.02E-03	1.80E-05	5.26E-03	5.41E-03	1.63E-03	9.36E-06	3.38E-04	3.72E-04	3.91E-02	
458	370900	3796150	Residential	4.06E-04	1.86E-04	3.53E-03	2.27E-03	1.69E-04	3.39E-05	1.69E-04	8.23E-03	6.88E-03	7.76E-04	1.50E-03	3.04E-04	1.80E-06	4.73E-04	5.26E-04	1.64E-04	9.36E-06	3.38E-04	3.72E-04	3.91E-04	
459	370900	3796200	Residential	9.21E-04	4.22E-04	8.02E-03	5.14E-03	3.84E-04	7.67E-05	3.84E-04	1.87E-02	1.56E-02	1.76E-03	3.41E-03	2.49E-05	1.48E-07	4.34E-05	4.43E-05	1.34E-05	7.68E-08	2.77E-06	3.05E-06	3.16E-04	
460	370900	3794600	Residential	-3.31E-04	1.52E-04	2.89E-03	1.85E-03	1.38E-04	2.76E-05	1.38E-04	-6.73E-03	-5.63E-03	-6.36E-04	-1.23E-03	1.22E-04	7.26E-07	1.91E-04	2.16E-04	6.96E-05	3.91E-07	1.40E-05	1.58E-05	1.59E-03	
461	371205	3798037	Residential	-8.65E-04	-3.97E-04	-7.54E-03	-4.83E-03	-3.61E-04	-7.21E-05	-3.61E-04	-1.76E-02	-1.47E-02	-1.66E-03	-3.21E-03	3.09E-04	7.59E-06	9.00E-04	2.71E-03	1.58E-03	6.55E-06	6.19E-05	5.76E-05	5.76E-03	
462	371421	3798131	Residential	2.18E-04	1.00E-04	1.91E-03	1.22E-03	9.08E-05	1.82E-05	9.08E-05	4.44E-03	3.71E-03	4.19E-04	8.12E-04	3.12E-04	1.92E-06	5.08E-04	6.08E-04	1.81E-04	1.00E-06	3.57E-05	3.97E-05	3.97E-04	
463	371591	3798209	Residential	1.59E-04	7.30E-05	1.39E-03	8.89E-04	6.64E-05	1.33E-05	6.64E-05	3.23E-03	2.70E-03	3.05E-04	5.91E-04	3.23E-04	1.91E-06	5.03E-04	6.42E-04	1.92E-04	1.06E-06	3.77E-05	4.19E-05	4.21E-03	
464	371685	3798100	Residential	-1.67E-03	-7.66E-04	-1.46E-02	-9.34E-03	-6.97E-04	-1.39E-04	-6.97E-04	-3.37E-02	-2.83E-02	-3.20E-03	-6.19E-03	3.16E-04	1.76E-06	4.62E-04	5.29E-04	1.58E-04	8.57E-07	3.07E-05	3.32E-05	3.33E-03	
465	371754	3799201	Residential	-2.06E-03	-9.44E-04	-1.79E-02	-1.15E-02	-8.58E-04	-1.72E-04	-8.58E-04	-4.18E-02	-3.49E-02	-3.95E-03	-7.63E-03	2.95E-03	1.76E-05	4.42E-04	5.25E-04	1.58E-04	9.10E-07	3.24E-05	3.61E-05	3.36E-03	
466	371808	3798214	Residential	-1.69E-03	-7.75E-04	-1.47E-02	-9.44E-03	-7.04E-04	-1.41E-04	-7.04E-04	-3.43E-02	-2.87E-02	-3.24E-03	-6.26E-03	3.16E-04	1.76E-06	4.62E-04	5.29E-04	1.58E-04	8.57E-07	3.07E-05	3.32E-05	3.33E-03	
467	371875	3798164	Residential	-8.58E-03	-2.58E-03	-4.86E-02	-3.11E-02	-2.32E-03	-4.65E-04	-2.32E-03	-1.13E-01	-9.44E-02	-1.07E-02	-2.07E-02	2.07E-04	1.31E-06	3.86E-04	4.71E-04	1.58E-04	9.67E-07	3.44E-05	3.84E-05	3.97E-03	
468	371900	3798500	Residential	3.93E-04	1.80E-04	3.42E-03	2.19E-03	1.64E-04	3.27E-05	1.64E-04	7.97E-03	6.66E-03	7.52E-04	1.46E-03	1.04E-04	6.20E-07	1.64E-04	1.86E-04	5.61E-05	3.39E-07	1.21E-05	1.37E-05	1.38E-03	
469	371900	3798600	Residential	-1.38E-03	1.57E-03	2.67E-02	1.85E-02	1.41E-03	2.81E-04	1.41E-03	5.99E-02	5.00E-02	5.66E-03	1.06E-02	1.04E-04	6.20E-07	1.64E-04	1.86E-04	5.61E-05	3.22E-07	1.07E-05	1.21E-05	1.17E-03	
470	371900	3798200	Residential	1.18E-03	5.40E-04	1.03E-02	6.97E-03	5.01E-04	9.91E-05	4.91E-04	2.39E-02	2.00E-02	2.26E-03	4.37E-03	5.07E-07	1.99E-06	1.52E-04	4.56E-05	2.63E-05	1.50E-07	5.47E-06	6.04E-06	9.15E-04	
471	371900	3798250	Residential	4.06E-04	1.86E-04	3.53E-03	2.27E-03	1.69E-04	3.39E-05	1.69E-04	8.23E-03	6.88E-03	7.76E-04	1.50E-03	3.04E-04	1.80E-06	4.73E-04	5.26E-04	1.64E-04	9.36E-06	3.38E-04	3.72E-04	3.91E-04	
472	371900	3798305	Residential	-3.06E-02	-6.23E-03	-1.16E-01	-7.58E-02	-5.66E-03	-1.13E-03	-5.66E-03	-2.75E-01	-2.30E-01	-2.60E-02	-5.03E-02	3.33E-03	1.99E-06	5.08E-04	5.97E-04	1.80E-04	1.04E-06	3.69E-05	4.11E-05	3.85E-03	
473	372241	3797683	Residential	-8.68E-04	-4.63E-04	-8.63E-03	-5.62E-03	-4.12E-04	-8.22E-05	-4.12E-04	-2.00E-02	-1.68E-02	-1.89E-03	-3.66E-03	3.42E-04	2.04E-06	5.59E-04	6.07E-04	1.84E-04	1.06E-06	3.77E-05	4.19E-05	4.21E-03	
474	372241	3797683	Residential	-1.22E-02	-5.58E-03	-1.06E-01	-8.60E-02	-6.08E-03	-1.02E-03	-6.08E-03	-2.47E-01	-2.07E-01	-2.33E-02	-4.52E-02	3.03E-04	1.86E-06	4.66E-04	5.39E-04	1.63E-04	9.35E-07	3.34E-05	3.71E-05	3.52E-03	
475	372241	3797683	Residential	-1.19E-03	1.92E-03	3.65E-02	2.34E-02	1.91E-03	3.82E-04	1.91E-03	7.61E-02	7.01E-02	7.95E-03	1.42E-02	1.22E-04	7.26E-07	1.91E-04	2.16E-04	6.55E-05	3.91E-07	1.40E-05	1.58E-05	1.59E-03	
476	372241	3797683	Residential	-7.23E-04	-3.31E-04	-6.30E-03	-4.04E-03	-3.01E-04	-6.03E-05	-3.01E-04	-1.47E-02	-1.23E-02	-1.39E-03	-2.68E-03	2.89E-04	1.72E-06	4.39E-04	5.15E-04	1.55E-04	8.93E-07	3.18E-05	3.54E-05	3.33E-03	
477	372241	3797683	Residential	3.89E-03	1.78E-03	3.38E-02	2.17E-02	1.62E-03	3.24E-04	1.62E-03	7.91E-02	6.60E-02	7.48E-03	1.44E-02	3.24E-03	1.93E-05	5.64E-03	6.49E-03	1.95E-03	1.13E-05	4.04E-04	4.47E-04	4.39E-02	
478	372241	3797683	Residential	-2.22E-02	-5.58E-03	-1.06E-01	-8.60E-02	-6.08E-03	-1.02E-03	-6.08E-03	-2.47E-01	-2.07E-01	-2.33E-02	-4.52E-02	3.03E-04	1.86E-06	4.66E-04	5.39E-04	1.63E-04	9.35E-07	3.34E-05	3.71E-05	3.52E-03	
479	372241	3797683	Residential	-1.19E-03	1.92E-03	3.65E-02	2.34E-02	1.91E-03	3.82E-04	1.91E-03	7.61E-02	7.01E-02	7.95E-03	1.42E-02	1.22E-04	7.26E-07	1.91E-04	2.16E-04	6.55E-05	3.91E-07	1.40E-05	1.58E-05	1.59E-03	
480	372241	3797683	Residential	-7.23E-04	-3.31E-04	-6.30E-03	-4.04E-03	-3.01E-04	-6.03E-05	-3.01E-04	-1.47E-02	-1.23E-02	-1.39E-03	-2.68E-03	2.89E-04	1.72E-06	4.39E-04	5.15E-04	1.55E-04	8.93E-07	3.18E-05	3.54E-05	3.33E-03	
481	372900	3795600	Residential	3.63E-03	1.67E-03	3.16E-02	2.03E-02	1.51E-03	3.03E-04	1.51E-03	7.37E-02	6.16E-02	6.96E-03	1.35E-02	3.02E-03	1.80E-05	5.26E-03	5.41E-03	1.63E-03	9.36E-06	3.38E-04	3.72E-04	3.91E-02	
482	372900	3794500	Residential	2.69E-03	1.24E-03	2.34E-02	1.51E-02	1.12E-03	2.25E-04	1.12E-03	5.47E-02	4.57E-02	5.16E-03	1.00E-02	2.24E-03	1.33E-05	3.90E-03	4.01E-03	1.21E-03	6.94E-06	2.51E-04	2.76E-04	2.90E-02	
483	372900	3795600	Residential	3.94E-03	1.81E-03	3.43E-02	2.20E-02	1.64E-03	3.28E-04	1.64E-03	7.99E-02	6.68E-02	7.55E-03	1.46E-02	6.87E-05	5.27E-07	1.40E-04	1.58E-04	4.76E-05	2.74E-07	9.65E-06	1.09E-05	1.06E-03	
484	372900	3795650	Residential	3.15E-02	1.44E-02	2.74E-01	1.76E-01	1.31E-02	2.62E-03	1.31E-02	6.39E-01	5.34E-01	6.04E-02	1.17E-01	1.67E-04	9.92E-07	2.71E-04	3.07E-04	9.97E-05	5.19E-07	1.91E-05	2.04E-05	2.03E-03	
485	372900	3795700	Residential	4.01E-03	1.84E-03	3.49E-02	2.24E-02	1.67E-03	3.34E-04	1.67E-03	8.14E-02	6.80E-02	7.69E-03	1.49E-02	9.77E-05	5.81E-07	1.44E-04	1.74E-04	5.24E-05	3.02E-07	1.07E-05	1.20E-05	1.09E-03	
486	372900	3796200	Residential	2.44E-03	1.12E-03	2.13E-02	1.36E-02	1.02E-03	2.04E-04	1.02E-03	4.96E-02	4.15E-02	4.68E-03	9.07E-03	1.96E-03	1.16E-05	3.41E-03	3.51E-03	1.06E-03	6.07E-06	2.20E-04	2.42E-04	2.54E-02	
487	373541	3797783	Residential	3.44E-02	1.57E-02	2.99E-01	1.92E-01	1.43E-02	2.86E-03	1.43E-02	6.97E-01	5.83E-01	6.59E-02	1.27E-01	1.87E-04	1.11E-06	3.01E-04	3.32E-04	1.00E-04	5.76E-07	2.09E-05	2.28E-05	2.26E-03	
488	373541	3797783	Residential	3.15E-02	1.44E-02	2.74E-01	1.76E-01	1.31E-02	2.62E-03	1.31E-02	6.39E-01	5.34E-01	6.04E-02	1.17E-01	1.67E-04	9.92E-07	2.71E-04	3.07E-04	9.97E-05	5.19E-07	1.91E-05	2.04E-05	2.03E-03	
489	373541	3797883	Residential	2.58E-02	1.18E-02	2.23E-01	1.44E-01	1.08E-02	2.15E-03	1.08E-02	5.24E-01	4.38E-01	4.96E-02	9.57E-02	1.51E-04	8.96E-07	2.47E-04	2.68E-04	8.10E-05	4.66E-07	1.67E-05	1.85E-05	1.85E-03	
490	373541	3798083	Residential	9.88E-02	6.64E-03	1.40E-01	1.05E-01	8.01E-03	1.57E-03	7.97E-03	3.20E-01	3.01E-01	3.41E-02	5.99E-02	1.22E-04	7.26E-07	1.91E-04	2.16E-04	6.55E-05	3.91E-07	1.40E-05	1.58E-05	1.59E-03	
491	373541	3797783	Residential	2.27E-02	1.04E-02	1.98E-01	1.27E-01	9.45E-03	1.89E-03	9.45E-03	4.60E-01	3.85E-01	4.35E-02	8.41E-02	2.54E-04	1.51E-06	4.02E-04	4.53E-04	1.36E-04	7.85E-07	2.83E-05	3.12E-05	3.11E-03	
492	373541	3797183	Residential	2.58E-02	1.18E-02	2.23E-01	1.44E-01	1.08E-02	2.15E-03	1.08E-02	5.24E-01	4.38E-01	4.96E-02	9.57E-02	1.51E-04	8.96E-07	2.47E-04	2.68E-04	8.10E-05	4.66E-07	1.67E-05	1.85E-05	1.85E-03	
493	373641	3797283	Residential	2.89E-02	1.32E-02	2.51E-01	1.61E-01	1.20E-02	2.41E-03	1.20E-02	5.86E-01	4.89E-01	5.53E-02	1.07E-01	3.31E-04	1.96E-06	5.26E-04	5.93E-04	1.79E-04	1.03E-06	3.68E-05	4.06E-05	3.96E-03	

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Table 2-3.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2024With Project v. 2024 Without Project
Operation TAC Concentrations

Receptor Number	X	Y	Receptor Type	acetaldehyde	acrolein	benzene	formaldehyde	methyl alcohol	methyl ethyl ketone	styrene	toluene	xylenes, total	1,3-Butadiene	ethyl benzene	ammonium	arsenic	asbestos	chlorine	copper	manganese	mercury	nickel	vanadium	sulfates
				(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
281	372031	3797756	Fenceline	1.90E-04	-8.70E-05	1.65E-03	-1.09E-03	-7.91E-05	-1.58E-05	-7.91E-05	-3.85E-03	-3.22E-03	-3.70E-04	-7.04E-04	2.42E-05	1.46E-06	5.14E-05	7.23E-05	9.94E-05	2.39E-07	1.74E-05	6.52E-06	6.74E-04	
282	372034	3795399	Fenceline	5.21E-03	2.36E-03	4.54E-02	2.91E-02	2.17E-03	4.34E-04	2.

Table 2-3.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2024 With Project v. 2024 Without Project
Operation TAC Concentrations

Receptor Number	X	Y	Receptor Type	acetaldehyde (µg/m³)	acrolein (µg/m³)	benzene (µg/m³)	formaldehyde (µg/m³)	methyl alcohol (µg/m³)	methyl ethyl ketone (µg/m³)	styrene (µg/m³)	toluene (µg/m³)	xylenes, total (µg/m³)	1,3-Butadiene (µg/m³)	ethyl benzene (µg/m³)	ammonium (µg/m³)	arsenic (µg/m³)	chlorine (µg/m³)	copper (µg/m³)	manganese (µg/m³)	mercury (µg/m³)	nickel (µg/m³)	vanadium (µg/m³)	sulfides (µg/m³)
701	373758	3799043	Residential/Commercial	1.78E-02	8.16E-03	1.55E-02	9.66E-02	1.42E-03	1.48E-03	7.42E-03	3.67E-01	3.02E-01	3.41E-02	6.97E-02	1.41E+00	3.36E-07	2.30E-04	2.37E-04	7.66E-05	4.34E-07	1.59E-05	1.72E-05	1.72E-03
702	373782	3799092	Residential/Commercial	6.89E-03	3.22E-03	6.08E-03	3.90E-02	2.91E-03	5.81E-04	2.91E-03	1.42E-01	1.18E-01	1.34E-02	2.59E-02	1.39E-04	8.00E-07	2.21E-04	2.40E-04	7.23E-05	4.15E-07	1.49E-05	1.65E-05	1.65E-03
703	373814	3799141	Residential/Commercial	3.93E-03	3.68E-03	7.00E-03	1.46E-02	3.36E-03	6.70E-04	3.03E-03	1.63E-01	1.36E-01	5.54E-03	2.99E-02	1.60E-04	1.01E-07	1.49E-04	1.66E-04	5.44E-05	3.13E-07	1.13E-05	1.24E-05	1.26E-03
704	373980	3799238	Residential/Commercial	2.62E-03	1.20E-03	2.28E-03	1.46E-02	1.09E-03	2.18E-04	1.09E-03	5.32E-02	4.44E-02	5.02E-03	9.72E-03	6.83E-05	4.06E-07	1.12E-04	1.22E-04	3.67E-05	2.11E-07	7.57E-06	8.36E-06	8.38E-04
705	374058	3799197	Residential/Commercial	1.64E-02	4.79E-03	9.03E-03	5.76E-02	4.32E-03	8.63E-04	4.32E-03	3.11E-01	1.79E-01	1.98E-02	3.83E-02	1.22E-04	1.49E-07	1.66E-04	2.13E-04	1.63E-04	1.25E-07	1.13E-05	1.46E-05	1.46E-03
706	374271	3799873	Residential/Commercial	6.04E-03	2.77E-03	5.26E-03	3.37E-02	2.52E-03	5.04E-04	2.52E-03	1.23E-01	1.02E-01	1.16E-02	2.24E-02	1.02E-04	6.07E-07	1.66E-04	1.82E-04	5.48E-05	3.15E-07	1.13E-05	1.25E-05	1.24E-03
707	374361	3799743	Residential/Commercial	8.17E-03	3.75E-03	7.12E-03	4.56E-02	3.41E-03	6.82E-04	3.41E-03	1.66E-01	1.38E-01	1.57E-02	3.03E-02	1.38E-04	8.19E-07	1.22E-04	1.40E-04	4.26E-05	2.46E-07	8.84E-06	9.77E-06	9.79E-04
708	374589	3799885	Residential/Commercial	5.88E-03	2.74E-03	5.21E-03	3.34E-02	2.49E-03	4.98E-04	2.49E-03	1.21E-01	1.01E-01	1.15E-02	2.22E-02	8.84E-05	5.25E-07	1.46E-04	1.57E-04	4.79E-05	2.73E-07	9.81E-06	1.08E-05	1.10E-03
709	374694	3799983	Residential/Commercial	5.97E-03	2.73E-03	5.20E-03	3.33E-02	2.49E-03	4.97E-04	2.49E-03	1.21E-01	1.01E-01	1.14E-02	2.21E-02	8.65E-05	5.26E-07	1.46E-04	1.58E-04	4.79E-05	2.73E-07	9.81E-06	1.08E-05	1.10E-03
710	374717	3800074	Residential/Commercial	6.44E-03	2.94E-03	5.60E-03	3.59E-02	2.68E-03	5.35E-04	2.68E-03	1.30E-01	1.08E-01	1.23E-02	2.38E-02	9.94E-05	7.33E-07	1.93E-04	2.09E-04	6.37E-05	3.64E-07	1.30E-05	1.44E-05	1.47E-03
711	375004	3794638	Residential/Commercial	1.09E-02	4.93E-04	9.37E-03	6.01E-03	4.49E-04	4.49E-04	2.18E-02	1.83E-02	2.06E-03	3.99E-02	2.00E-03	1.72E-07	4.98E-05	5.19E-05	5.93E-05	3.20E-05	3.55E-06	3.45E-04	4.88E-05	5.52E-04
712	375015	3799595	Residential/Commercial	2.24E-02	1.03E-03	1.95E-02	1.25E-02	9.35E-04	9.35E-04	4.55E-02	3.82E-02	4.30E-03	8.31E-02	4.18E-03	3.58E-07	1.04E-04	1.08E-04	1.23E-04	6.66E-05	7.40E-06	7.19E-04	1.02E-04	1.15E-03
713	375718	3798208	Residential/Commercial	3.35E-03	1.54E-03	2.92E-03	1.87E-02	1.40E-03	2.79E-04	1.40E-03	6.80E-02	5.66E-02	6.43E-03	1.24E-02	1.49E-04	8.86E-07	2.39E-04	2.60E-04	8.00E-05	4.60E-07	1.65E-05	1.82E-05	1.80E-03
714	375982	3798441	Residential/Commercial	3.31E-03	1.06E-03	2.01E-03	1.29E-02	9.66E-04	1.93E-04	9.66E-04	4.68E-02	3.90E-02	4.43E-03	8.57E-03	1.03E-04	6.11E-07	1.65E-04	3.04E-04	5.51E-05	3.17E-07	1.14E-05	2.06E-05	1.24E-03
715	375908	3799339	Residential/Commercial	4.18E-04	1.92E-04	3.64E-03	2.33E-03	1.74E-04	3.48E-05	7.09E-03	8.02E-04	1.55E-03	5.23E-03	3.11E-03	6.97E-05	9.29E-05	2.80E-05	1.61E-07	5.68E-06	6.49E-06	5.39E-04
716	375921	3798283	Residential/Commercial	1.12E-03	5.54E-04	1.05E-03	6.74E-03	5.03E-04	1.01E-04	5.03E-04	2.44E-02	2.32E-02	4.48E-03	8.87E-03	5.23E-05	3.31E-07	8.63E-05	1.57E-04	4.72E-05	2.72E-07	9.91E-06	1.06E-05	9.65E-04
717	376709	3799388	Residential/Commercial	2.40E-03	1.10E-03	2.09E-03	1.34E-02	9.99E-04	2.00E-04	9.99E-04	4.86E-02	4.06E-02	4.99E-03	8.89E-03	3.30E-05	3.15E-07	8.53E-05	9.44E-05	2.85E-05	1.64E-07	5.86E-06	6.49E-06	6.41E-04
718	376814	3794859	Residential/Commercial	1.16E-03	8.83E-04	1.68E-03	1.08E-02	8.03E-04	1.61E-04	8.03E-04	3.27E-02	3.89E-02	3.91E-03	7.14E-03	2.62E-05	2.68E-07	6.34E-05	1.91E-04	1.18E-04	1.04E-07	3.95E-06	4.36E-06	4.16E-04
719	377925	3793643	Residential/Commercial	8.61E-04	3.95E-04	7.50E-03	4.81E-03	3.59E-04	7.19E-05	1.46E-02	1.65E-03	3.19E-03	1.99E-02	5.48E-03	1.42E-04	1.91E-04	5.77E-05	1.03E-07	3.71E-06	4.32E-06	4.11E-04
720	377947	3794224	Residential/Commercial	7.09E-04	3.25E-04	6.17E-03	3.96E-03	2.95E-04	5.91E-05	1.20E-02	1.36E-03	2.63E-03	1.64E-02	4.51E-03	1.17E-04	1.57E-04	4.75E-05	8.48E-08	3.05E-06	3.55E-06	3.38E-04
721	378004	3793139	Residential/Commercial	5.74E-04	2.63E-04	5.00E-03	3.20E-03	2.39E-04	4.78E-05	2.39E-04	1.10E-02	9.73E-03	1.10E-03	2.13E-03	3.91E-05	2.08E-07	5.84E-05	6.24E-05	1.88E-05	1.08E-07	3.89E-06	4.26E-06	4.36E-04
722	378022	3798897	Residential/Commercial	2.29E-03	1.13E-03	2.15E-03	1.62E-02	1.01E-03	1.94E-04	9.68E-04	4.70E-02	3.89E-02	4.29E-03	8.09E-03	3.98E-05	2.46E-07	6.97E-05	1.00E-04	2.24E-05	1.27E-07	4.57E-06	5.03E-06	5.06E-04
723	378087	3796433	Residential/Commercial	8.18E-05	3.78E-05	7.12E-04	4.96E-04	3.41E-05	6.81E-06	3.44E-05	1.56E-03	1.30E-03	1.57E-04	3.03E-04	4.67E-05	2.77E-07	7.71E-05	8.31E-05	2.51E-05	1.44E-07	5.17E-06	5.77E-06	5.72E-04
724	378210	3798122	Residential/Commercial	6.03E-04	2.76E-04	5.22E-03	3.37E-03	2.51E-04	5.02E-05	2.51E-04	1.15E-02	9.61E-03	1.16E-03	2.24E-03	3.91E-05	2.08E-07	5.84E-05	6.24E-05	1.88E-05	1.08E-07	3.89E-06	4.26E-06	4.36E-04
725	378212	3793512	Residential/Commercial	1.02E-03	4.69E-04	8.91E-03	5.71E-03	4.26E-04	8.52E-05	4.26E-04	2.08E-02	1.73E-02	1.96E-03	3.79E-03	3.20E-05	1.90E-07	5.30E-05	5.70E-05	1.72E-05	9.87E-08	3.55E-06	3.92E-06	3.97E-04
726	378224	3799237	Residential/Commercial	-7.91E-05	-3.62E-05	-6.89E-04	-4.42E-04	-3.30E-05	-6.60E-06	-3.33E-05	-1.60E-03	-1.34E-03	-1.52E-04	-2.92E-04	7.01E-05	4.17E-07	1.16E-04	1.25E-04	3.77E-05	2.16E-07	7.79E-06	8.69E-06	8.75E-04
727	378327	3794109	Residential/Commercial	7.53E-04	3.48E-04	6.60E-03	4.42E-03	3.16E-04	6.32E-05	3.16E-04	1.46E-02	1.24E-02	1.48E-03	2.86E-03	3.20E-05	1.90E-07	5.30E-05	5.70E-05	1.72E-05	9.87E-08	3.55E-06	3.92E-06	3.97E-04
728	378367	3795075	Residential/Commercial	2.62E-03	1.20E-03	2.28E-03	1.46E-02	1.09E-03	2.18E-04	1.09E-03	5.31E-02	4.44E-02	5.02E-03	9.71E-03	3.48E-05	2.07E-07	5.70E-05	6.19E-05	1.87E-05	1.07E-07	3.86E-06	4.26E-06	4.27E-04
729	378370	3798819	Residential/Commercial	4.46E-03	2.27E-03	4.33E-03	2.77E-02	2.03E-03	4.07E-04	2.03E-03	9.41E-02	8.16E-02	9.26E-03	1.72E-02	1.04E-04	6.21E-07	1.66E-04	1.86E-04	5.56E-05	3.19E-07	1.14E-05	1.26E-05	1.26E-03
730	378782	3793136	Residential/Commercial	2.58E-04	1.18E-04	2.25E-03	1.44E-03	1.07E-04	2.15E-05	1.07E-04	4.37E-03	4.94E-04	9.86E-04	6.94E-03	4.52E-07	1.32E-04	1.72E-04	3.72E-05	2.14E-07	7.68E-06	8.46E-06	8.44E-04
731	378862	3793229	Residential/Commercial	2.74E-03	2.33E-04	4.47E-03	2.86E-03	1.20E-03	2.41E-04	1.20E-03	5.79E-02	4.91E-02	5.52E-03	1.07E-02	3.36E-05	2.00E-07	5.50E-05	5.97E-05	1.80E-05	1.03E-07	3.72E-06	4.11E-06	4.12E-04
732	386900	3799500	Commercial	-8.80E-05	-2.69E-05	-5.11E-04	-3.27E-04	-2.44E-05	-4.89E-06	-2.44E-05	-1.19E-03	-9.94E-04	-1.12E-04	-2.17E-04	3.67E-05	2.18E-07	6.31E-05	6.54E-05	1.97E-05	1.13E-07	4.09E-06	4.50E-06	4.70E-04
733	387900	3799500	Commercial	1.63E-04	7.40E-05	1.42E-03	9.07E-04	6.77E-05	1.35E-05	6.77E-05	3.13E-03	2.74E-03	3.11E-04	6.03E-04	3.37E-05	2.06E-07	5.91E-05	6.01E-05	1.81E-05	1.04E-07	3.76E-06	4.14E-06	4.32E-04
734	388900	3799500	Commercial	-4.84E-05	-2.13E-05	-4.04E-04	-2.59E-04	-1.93E-05	-3.87E-06	-1.93E-05	-9.42E-04	-7.87E-04	-8.90E-05	-1.72E-04	2.89E-05	1.76E-07	5.07E-05	5.16E-05	1.55E-05	8.94E-08	3.24E-06	3.56E-06	4.16E-04
735	386900	3795500	Commercial	2.64E-04	1.13E-04	2.40E-03	1.80E-03	1.04E-04	2.08E-05	1.04E-04	4.81E-03	4.46E-03	1.04E-03	2.14E-03	1.48E-05	9.08E-08	2.61E-05	2.85E-05	8.57E-06	4.91E-08	1.78E-06	1.96E-06	1.97E-04
736	387900	3795500	Commercial	-3.62E-04	-1.66E-04	-3.16E-03	-2.02E-03	-1.51E-04	-3.02E-05	-1.51E-04	-7.35E-03	-6.14E-03	-6.96E-04	-1.34E-03	2.26E-05	1.37E-07	3.96E-05	4.03E-05	1.21E-05	6.98E-08	2.53E-06	2.78E-06	3.03E-04
737	388900	3795500	Commercial	8.49E-04	3.89E-04	7.39E-03	4.76E-03	3.54E-04	7.12E-05	3.54E-04	1.72E-02	1.44E-02	1.63E-03	3.19E-03	4.41E-05	2.62E-07	6.97E-05	7.86E-05	2.37E-05	1.36E-07	4.87E-06	5.40E-06	5.25E-04
738	389900	3795500	Commercial	3.27E-04	1.73E-04	3.28E-03	2.11E-03	1.31E-04	2.63E-05	1.31E-04	6.04E-03	5.14E-03	5.82E-04	1.12E-03	2.26E-05	1.37E-07	3.96E-05	4.03E-05	1.21E-05	6.98E-08	2.53E-06	2.78E-06	3.03E-04
739	387900	3793600	Commercial	5.13E-04	2.35E-04	4.47E-03	2.87E-03	2.14E-04	4.28E-05	2.14E-04	1.04E-02	8.70E-03	9.84E-04	1.90E-03	3.58E-05	2.11E-07	5.89E-05	6.33E-05	1.91E-05	1.10E-07	3.95E-06	4.36E-06	4.41E-04
740	388900	3793600	Commercial	3.23E-04	1.48E-04	2.83E-03	1.82E-03	1.35E-04	2.70E-05	1.35E-04	6.57E-03	5.52E-03	6.23E-04	1.20E-03	2.26E-05	1.37E-07	3.96E-05	4.03E-05	1.21E-05	6.98E-08	2.53E-06	2.78E-06	3.03E-04
741	389900	3793600	Commercial	-1.21E-04	-5.59E-05	-1.06E-03	-6.77E-04	-5.05E-05	-1.01E-05	-5.09E-05	-2.46E-03	-2.06E-03	-2.34E-04	-4.49E-04	1.47E-05	8.90E-08	2.57E-05	2.62E-05	7.81E-06	4.47E-08	1.65E-06	1.82E-06	1.74E-04
742	386900	3795500	Commercial	2.94E-04	1.35E-04	2.56E-03	1.64E-03	1.22E-04	2.43E-05	1.22E-04	5.94E-03	4.99E-03	5.63E-04	1.08E-03	2.26E-05	1.37E-07	3.96E-05	4.03E-05	1.21E-05	6.98E-08	2.53E-06	2.78E-06	3.03E-04
743	387900	3795500	Commercial	-1.11E-04	-5.10E-05	-9.70E-04	-6.22E-04	-4.64E-05	-9.28E-06	-4.64E-05	-2.26E-03	-1.89E-03	-2.13E-04	-4.13E-04	1.83E-05	1.09E-07	2.89E-05	3.26E-05	9.82E-06	5.64E-07	2.02E-05	2.24E-05	2.16E-03
744	388900	3795500	Commercial	8.19E-04	3.75E-04	7.14E-03	4.61E-03	3.41E-04	6.83E-05	3.41E-04	1.66E-02	1.38E-02	1.57E-03	3.03E-03	4.41E-05	2.62E-07	6.97E-05	7.86E-05	2.37E-05	1.36E-07	4.87E-06	5.40E-06	5.25E-04
745	389900	3795500	Commercial	1.82E-03	6.88E-04	1.31E-02	8.38E-03	6.25E-04	1.25E-04	6.29E-04	3.04E-02	2.54E-02	2.88E-03	5.58E-03	5.42E-05	3.22E-07	9.05E-05	9.65E-05	2.91E-05	1.67E-07	6.02E-06	6.63E-06	6.75E-04
746	386900	3793500	Commercial	3.32E-04	1.52E-04	2.89E-03	1.85E-03	1.38E-04	2.76E-05	1.38E-04	6.73E-03	5.62E-03	6.36E-04	1.23E-03	2.68E-05	1.60E-07	4.64E-05	4.79E-05	1.44E-05	8.28E-08	2.99E-06	3.29E-06	3.46E-04
747	387900	3793500	Commercial	-9.02E-05	-4.14E-05	-7.88E-04	-5.04E-04	-3.76E-05	-7.52E-06	-3.77E-05	-1.83E-03	-1.53E-03	-1.73E-04	-3.35E-04	1.39E-05	8.26E-08	2.44E-05	2.47E-05	7.37E-06	4.22E-08	1.56E-06	1.71E-06	1.64E-04
748	388900	3793500	Commercial	2.09E-04	9.60E-05	1.82E-03	1.17E-03	8.73E-05	1.75E-05	8.79E-05	4.29E-03	3.85E-03	4.01E-04	7.77E-04	4.60E-05	2.75E-07	7.77E-05	8.14E-05	2.47E-05	1.42E-07	5.16E-06	5.63E-06	5.37E-04
749	389900	3793500	Commercial	8.80E-04	2.66E-04	5.07E-03	3.24E-03	2.42E-04	4.83E-05	2.42E-04	1.18E-02	9.94E-03	1.11E-03	2.15E-03	3.21E-05	1.90E-07	5.30E-05	5.70E-05	1.72E-05	9.87E-08	3.55E-06	3.92E-06	3.97E-04
750	370900	3794500	Commercial	1.61E-03	7.39E-04	1.40E-02	9.00E-03	6.72E-04	1.34E-04	6.73E-04	3.27E-02	2.75E-02	3.09E-03	5.98E-03	9.20E-05	5.47E-07	1.33E-04	1.64E-04	4.93E-05	2.84E-07	1.01E-05	1.13E-05	1.01E-03
751	371900	3794500	Commercial	-9.02E-04	-4.14E-04	-7.88E-03	-5.04E-03	-3.76E-04	-7.52E-05	-3.77E-04	-1.83E-02	-1.53E-02	-1.73E-03	-3.35E-03	1.39E-05	8.26E-08	2.44E-05	2.47E-05	7.37E-06	4.22E-08	1.56E-06	1.71E-06	1.64E-04
752	372900	3794500	Commercial	5.33E-04	2.44E-04	4.64E-03	2.98E-03	2.22E-04	4.44E-05	2.22E-04	1.08E-02	9.04E-03	1.02E-03	1.98E-03	4.68E-05	2.79E-07	7.91E-05	8.29E-05	2.51E-05	1.44E-07	5.25E-06	5.73E-06	5.47E-04
753	373900	3794500	Commercial	1.93E-03	8.27E-04	1.57E-02	1.01E-02	7.51E-04	1.50E-04	7.51E-04	3.66E-02	3.08E-02	3.46E-03	6.69E-03	4.46E-05	2.66E-07	7.71E-05	8.07E-05	2.44E-05	1.40E-07	5.11E-06	5.57E-06	5.32E-04
754	374900	3794500	Commercial	2.43E-03	1.11E-03	2.11E-02	1.36E-02	1.01E-03	2.02E-04	1.01E-03	4.93E-02	4.12E-02	4.65E-03	9.00E-03	6.27E-04	3.73E-06	9.85E-04	1.12E-03	3.33E-04	1.93E-06	6.92E-05	7.68E-05	7.43E-03
755	375900	3794500	Commercial	-1.19E-03	-5.47E-04	-1.03E-02	-6.62E-03	-4.97E-04	-9.93E-05	-4.97E-04	-2.41E-02	-2.03E-02	-2.28E-03	-4.42E-03	1.59E-05	9.46E-08	2.79E-05	2.84E-05	8.45E-06	4.84E-08	1.79E-06	1.96E-06	1.86E-04

Table 2-3.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2024With Project v. 2024 Without Project
Operation TAC Concentrations

Receptor Number	X	Y	Receptor Type	acetaldehyde (µg/m³)	acrolein (µg/m³)	benzene (µg/m³)	formaldehyde (µg/m³)	methyl alcohol (µg/m³)	methyl ethyl ketone (µg/m³)	styrene (µg/m³)	toluene (µg/m³)	xylenes, total (µg/m³)	1,3-Butadiene (µg/m³)	ethyl benzene (µg/m³)	ammonium (µg/m³)	arsenic (µg/m³)	chlorine (µg/m³)	copper (µg/m³)	manganese (µg/m³)	mercury (µg/m³)	nickel (µg/m³)	vanadium (µg/m³)	sulfides (µg/m³)
561	379900	3797500	Residential	9.66E-03	3.05E-04	5.80E-03	3.73E-03	2.77E-04	5.55E-05	2.77E-04	1.36E-02	1.13E-02	1.28E-03	2.48E-03	1.19E-04	7.09E-07	1.89E-04	2.07E-04	6.35E-05	3.61E-07	1.32E-05	1.43E-05	1.42E-03
562	379900	3795900	Residential	4.86E-04	2.14E-04	4.06E-03	2.60E-03	1.94E-04	3.89E-05	1.94E-04	9.46E-03	7.91E-03	8.94E-04	1.73E-03	6.41E-05	3.81E-07	1.02E-04	1.14E-04	3.44E-05	1.96E-07	7.09E-06	7.85E-06	7.69E-04
563	379900	3795800	Residential	4.91E-04	4.35E-05	3.21E-03	2.77E-03	1.97E-04	3.93E-05	1.97E-04	9.56E-03	8.00E-03	1.81E-04	1.24E-03	2.66E-05	1.58E-07	4.24E-05	4.69E-05	1.43E-05	8.19E-08	2.99E-06	3.31E-06	3.19E-04
564	379900	3791900	Residential	3.75E-04	1.72E-04	3.26E-03	2.09E-03	1.56E-04	3.12E-05	1.22E-04	1.22E-04	3.67E-05	2.30E-04	1.39E-04	2.66E-05	1.58E-07	4.24E-05	4.69E-05	1.43E-05	8.19E-08	2.99E-06	3.31E-06	3.19E-04
565	379900	3792900	Residential	2.33E-04	1.07E-04	2.03E-03	1.30E-03	9.71E-05	1.94E-05	9.71E-05	4.73E-03	3.96E-03	4.47E-04	8.64E-04	2.66E-05	1.58E-07	4.24E-05	4.69E-05	1.43E-05	8.19E-08	2.99E-06	3.31E-06	3.19E-04
566	379900	3793900	Residential	-1.32E-04	-6.06E-05	-1.10E-03	-7.39E-04	-5.51E-05	-1.10E-05	-5.51E-05	-2.68E-03	-2.24E-03	-2.54E-04	-4.91E-04	4.40E-05	2.63E-07	7.25E-05	7.84E-05	2.37E-05	1.36E-07	4.88E-06	5.39E-06	5.43E-04
567	379900	3794900	Residential	9.47E-04	4.34E-04	8.24E-03	5.29E-03	3.94E-04	7.90E-05	3.94E-04	1.92E-02	1.60E-02	1.82E-03	3.51E-03	4.40E-05	2.62E-07	6.97E-05	7.86E-05	2.37E-05	1.36E-07	4.87E-06	5.40E-06	5.25E-04
568	380000	3793900	Residential	1.04E-03	4.76E-04	9.04E-03	5.80E-03	4.33E-04	8.66E-05	4.33E-04	2.11E-02	1.76E-02	1.99E-03	3.85E-03	4.40E-05	2.62E-07	6.97E-05	7.86E-05	2.37E-05	1.36E-07	4.87E-06	5.40E-06	5.25E-04
569	380000	3794500	Residential	1.16E-03	5.27E-04	1.00E-02	6.42E-03	4.79E-04	9.58E-05	4.79E-04	2.33E-02	1.95E-02	2.20E-03	4.26E-03	5.08E-05	3.02E-07	8.09E-05	9.04E-05	2.72E-05	1.57E-07	5.52E-06	6.22E-06	5.19E-04
570	380000	3795500	Residential	1.20E-03	5.47E-04	1.04E-02	6.67E-03	4.98E-04	9.96E-05	4.98E-04	2.42E-02	2.03E-02	2.29E-03	4.42E-03	5.08E-05	3.02E-07	8.09E-05	9.04E-05	2.72E-05	1.57E-07	5.52E-06	6.22E-06	5.19E-04
571	380000	3796500	Residential	2.88E-03	1.32E-03	2.51E-03	1.61E-03	1.20E-04	2.40E-05	1.20E-04	5.84E-03	4.88E-03	5.52E-04	1.07E-03	4.68E-05	2.79E-07	7.91E-05	8.29E-05	2.51E-05	1.44E-07	5.25E-06	5.73E-06	5.47E-04
572	380000	3797500	Residential	3.26E-03	1.49E-03	2.84E-03	1.82E-03	1.36E-04	2.72E-05	1.36E-04	6.61E-03	5.52E-03	6.25E-04	1.21E-03	4.68E-05	2.79E-07	7.91E-05	8.29E-05	2.51E-05	1.44E-07	5.25E-06	5.73E-06	5.47E-04
573	380000	3798500	Residential	7.41E-04	3.40E-04	6.46E-03	4.14E-03	3.09E-04	6.19E-05	3.09E-04	1.50E-02	1.26E-02	1.42E-03	2.75E-03	5.21E-05	3.10E-07	8.29E-05	9.27E-05	2.80E-05	1.61E-07	5.76E-06	6.38E-06	6.24E-04
574	380000	3799500	Residential	4.06E-03	1.86E-03	3.54E-03	2.26E-03	1.69E-04	3.39E-05	1.69E-04	8.24E-03	6.91E-03	7.83E-04	1.51E-03	5.21E-05	3.10E-07	8.29E-05	9.27E-05	2.80E-05	1.61E-07	5.76E-06	6.38E-06	6.24E-04
575	380000	3795900	Residential	8.79E-04	4.03E-04	7.66E-03	4.91E-03	3.66E-04	7.33E-05	3.66E-04	1.78E-02	1.49E-02	1.69E-03	3.26E-03	5.08E-05	3.02E-07	8.09E-05	9.04E-05	2.72E-05	1.57E-07	5.52E-06	6.22E-06	5.19E-04
576	380000	3793900	Residential	1.51E-04	6.92E-05	1.31E-03	8.43E-04	6.29E-05	1.26E-05	6.29E-05	3.06E-03	2.56E-03	2.89E-04	5.60E-04	4.40E-05	2.62E-07	6.97E-05	7.86E-05	2.37E-05	1.36E-07	4.87E-06	5.40E-06	5.25E-04
577	380000	3792900	Residential	1.30E-03	5.95E-05	1.13E-03	7.24E-04	5.40E-05	1.08E-05	5.40E-05	2.63E-03	2.20E-03	2.49E-04	4.81E-04	5.08E-05	3.01E-07	8.24E-05	9.01E-05	2.72E-05	1.56E-07	5.61E-06	6.20E-06	6.18E-04
578	381000	3795500	Residential	2.51E-03	1.15E-03	2.19E-03	1.40E-03	1.04E-04	2.08E-05	1.04E-04	5.08E-03	4.25E-03	4.80E-04	9.31E-04	4.68E-05	2.79E-07	7.91E-05	8.29E-05	2.51E-05	1.44E-07	5.25E-06	5.73E-06	5.47E-04
579	381000	3794500	Residential	9.46E-04	4.34E-04	8.24E-03	5.28E-03	3.94E-04	7.90E-05	3.94E-04	1.92E-02	1.60E-02	1.81E-03	3.51E-03	5.08E-05	3.02E-07	8.09E-05	9.04E-05	2.72E-05	1.57E-07	5.52E-06	6.22E-06	5.19E-04
580	381000	3795500	Residential	1.32E-03	5.95E-04	1.06E-02	6.79E-03	5.07E-04	1.01E-04	5.07E-04	2.47E-02	2.06E-02	2.33E-03	4.51E-03	2

CDM Smith

Operation

2-4 2035 With Project vs. 2035 Without Project

Attachment 2 - Acute Non-Cancer Health Hazard Calculations

Table 2-4.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2035 With Project v. 2035 Without Project
Operation TAC Concentrations

Receptor Location	acetaldehyde	acrolein	benzene	formaldehyde	methyl alcohol	methyl ethyl ketone	styrene	toluene	xylene, total	1,3-Butadiene	ethyl benzene	ammonium	arsenic	chlorine	copper	manganese	mercury	nickel	vanadium	sulfates
	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
Commercial - Onsite	403	403	403	403	403	403	403	403	403	403	403	403	403	403	403	403	403	403	403	404
Maximum Onsite Concentration-->	7.02E-04	3.22E-04	4.12E-03	3.92E-03	2.91E-04	5.86E-05	2.93E-04	1.42E-02	1.11E-02	1.55E-03	2.60E-03	6.59E-05	4.90E-07	1.21E-04	1.19E-04	3.65E-05	2.15E-07	7.21E-08	5.27E-06	7.76E-04
Average Onsite Concentration-->	8.77E-03	4.02E-03	7.64E-02	4.90E-02	3.66E-03	7.31E-04	3.66E-03	1.78E-01	1.49E-01	1.68E-02	3.25E-02	3.48E-05	2.05E-07	9.92E-05	6.01E-05	1.87E-05	1.07E-07	4.04E-06	4.16E-06	6.96E-04
Minimum Onsite Concentration-->	1.68E-02	7.72E-03	1.47E-01	8.41E-02	7.02E-03	1.40E-03	7.02E-03	3.42E-01	2.86E-01	3.23E-02	6.25E-02	0.00E+00	0.00E+00	7.73E-05	8.66E-07	8.66E-07	0.00E+00	8.66E-07	0.00E+00	6.13E-04
Commercial - Offsite	Max Location																			
Maximum Offsite Concentration-->	7.69E-02	3.52E-02	6.70E-01	4.29E-01	3.20E-02	6.41E-03	3.20E-02	1.56E+00	1.30E+00	1.47E-01	2.85E-01	1.76E-02	1.04E-04	1.86E-02	3.02E-02	9.22E-03	5.43E-05	1.82E-03	2.09E-03	1.49E-01
Average Offsite Concentration-->	4.21E-03	1.93E-03	3.66E-02	2.35E-02	1.75E-03	3.50E-04	1.75E-03	8.53E-02	7.12E-02	8.05E-03	1.56E-02	1.63E-03	1.06E-05	1.98E-03	3.11E-03	9.62E-04	5.64E-06	1.93E-04	2.16E-04	1.86E-02
Minimum Offsite Concentration-->	9.36E-02	4.29E-02	8.15E-01	5.22E-01	3.90E-02	7.80E-03	3.90E-02	1.90E+00	1.59E+00	1.79E-01	3.47E-01	0.00E+00	0.00E+00	2.30E-02	1.57E-06	1.57E-06	0.00E+00	1.57E-06	0.00E+00	1.42E-05
Residential	Max Location																			
Maximum Offsite Concentration-->	3.54E-02	1.62E-02	3.08E-01	1.98E-01	1.47E-02	2.95E-03	1.47E-02	7.18E-01	6.00E-01	6.78E-02	1.31E-01	6.53E-03	3.85E-05	6.03E-03	1.12E-02	3.42E-03	2.02E-05	6.68E-04	7.77E-04	4.97E-02
Average Offsite Concentration-->	2.74E-03	1.26E-03	2.39E-02	1.53E-02	1.14E-03	2.28E-04	1.14E-03	5.57E-02	4.65E-02	5.26E-03	1.02E-02	2.77E-04	1.61E-06	2.70E-04	4.73E-04	1.46E-04	8.59E-07	2.94E-05	3.29E-05	2.32E-03
Minimum Offsite Concentration-->	1.47E-02	6.72E-03	1.28E-01	8.19E-02	6.11E-03	1.22E-03	6.11E-03	2.98E-01	2.49E-01	2.81E-02	5.44E-02	0.00E+00	0.00E+00	4.01E-03	1.49E-08	1.49E-08	0.00E+00	1.49E-08	0.00E+00	1.31E-05
CalEPA Acute REL	470	2.5	27	55	28000	13000	21000	37000	22000	660	2000	3200	0.2	210	100	0.17	0.8	0.2	30	120
Commercial - Onsite																				
Onsite Maximum Acute Hazard-->	1.49E-08	-1.29E-04	-2.20E-04	-7.15E-05	-1.05E-08	-4.50E-09	-1.39E-08	-3.85E-07	-5.41E-07	-2.04E-06	-1.33E-06	2.17E-08	2.05E-06	5.77E-07	1.19E-06	2.15E-04	3.58E-05	2.76E-07	6.49E-06	
Onsite Average Acute Hazard-->	-1.87E-05	-1.61E-03	-2.83E-03	-8.91E-04	-1.31E-07	-5.62E-08	-1.74E-07	-4.81E-06	-6.76E-06	-2.55E-05	-1.63E-05	1.09E-07	1.02E-05	4.73E-07	6.01E-07	1.10E-04	1.79E-07	2.02E-05	1.38E-07	8.35E-06
Onsite Minimum Acute Hazard-->	-3.58E-05	-3.09E-03	-5.43E-03	-1.71E-03	-2.51E-07	-1.08E-07	-3.34E-07	-9.24E-06	-1.30E-05	-4.89E-05	-3.12E-05	0.00E+00	0.00E+00	3.68E-07	8.66E-09	9.09E-06	0.00E+00	4.33E-06	0.00E+00	5.11E-06
Commercial - Offsite																				
Offsite Maximum Acute Hazard-->	1.64E-04	1.41E-02	2.40E-02	7.81E-03	1.14E-06	4.93E-07	1.53E-06	4.22E-05	5.93E-05	2.23E-04	1.43E-04	5.49E-06	5.18E-04	8.87E-05	3.02E-04	5.42E-02	9.03E-05	9.08E-05	6.97E-05	1.24E-03
Offsite Average Acute Hazard-->	8.94E-06	7.70E-04	1.30E-03	4.26E-04	6.25E-08	2.69E-08	8.34E-08	2.30E-06	3.24E-06	1.22E-05	7.79E-06	5.73E-07	5.40E-05	9.41E-06	3.15E-05	5.66E-03	9.44E-06	9.48E-06	7.27E-06	1.31E-04
Offsite Minimum Acute Hazard-->	-1.99E-04	-1.72E-02	-3.02E-02	-9.50E-03	-1.39E-06	-6.00E-07	-1.86E-06	-5.13E-05	-7.21E-05	-2.72E-04	-1.74E-04	0.00E+00	0.00E+00	1.05E-08	1.57E-10	9.26E-08	0.00E+00	7.87E-08	0.00E+00	1.18E-07
Residential																				
Offsite Maximum Acute Hazard-->	7.53E-05	6.49E-03	1.14E-02	3.99E-03	5.27E-07	2.27E-07	7.02E-07	1.94E-05	2.73E-05	1.03E-04	6.59E-05	2.04E-06	1.92E-04	2.87E-05	1.12E-04	2.01E-02	3.34E-05	2.59E-05	4.15E-04	
Offsite Average Acute Hazard-->	5.84E-06	5.03E-04	8.85E-04	2.76E-04	4.08E-08	1.76E-08	5.44E-08	1.50E-06	2.11E-06	7.96E-06	5.09E-06	8.65E-08	8.36E-06	1.28E-06	4.79E-06	8.53E-04	1.42E-06	1.42E-06	1.10E-06	1.83E-05
Offsite Minimum Acute Hazard-->	-3.12E-06	-2.68E-03	-4.73E-03	-1.48E-03	-2.18E-07	-9.40E-08	-2.91E-07	-8.04E-06	-1.13E-05	-4.26E-05	-2.72E-05	0.00E+00	0.00E+00	9.88E-08	1.49E-10	8.65E-08	0.00E+00	7.27E-08	0.00E+00	1.09E-07

µg/m³ = micrograms per cubic meter

Table 2-3.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2024With Project v. 2024 Without Project
Operation TAC Concentrations

Receptor Number	X	Y	Receptor Type	acetaldehyde	acrolein	benzene	formaldehyde	methyl alcohol	methyl ethyl ketone	styrene	toluene	xylene, total	1,3-Butadiene	ethyl benzene	ammonium	arsenic	chlorine	copper	manganese	mercury	nickel	vanadium	sulfates
				(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
841	372541	3797383	Commercial	2.52E-02	9.72E-03	1.87E-01	1.19E-01	8.74E-03	1.77E-03	8.84E-03	4.31E-01	3.60E-01	4.07E-02	7.97E-02	4.87E-04	2.85E-06	2.61E-04	1.30E-05	5.37E-05	5.59E-05	5.59E-03		
842	372541	3797183	Commercial	2.45E-02	1.13E-02	2.14E-01	1.37E-01	1.02E-02	2.05E-03	1.02E-02	4.98E-01	4.16E-01	4.71E-02	9.10E-02	6.47E-04	3.84E-06	9.89E-04	1.15E-03	3.47E-04	2.00E-06	7.12E-05	7.92E-05	7.40E-03		
843	372541	3797383	Commercial	1.86E-02	8.53E-03	1.62E-01	1.04E-01	7.73E-03	1.55E-03	7.76E-03	3.78E-01	3.18E-01	3.57E-02	6.90E-02	7.48E-04	4.49E-06	1.13E-03	1.32E-03	4.01E-04	2.31E-06	8.23E-05	9.16E-05	8.60E-03		
844	372541	3797483	Commercial	1.62E-02	7.41E-03	1.41E-01	9.03E-02	6.74E-03	1.35E-03	6.74E-03	3.28E-01	2.74E-01	3.10E-02	6.00E-02	5.14E-04	3.09E-06	7.73E-04	9.16E-04	2.76E-04	1.59E-06	5.65E-05	6.30E-05	5.87E-03		
845	372541	3797483	Commercial	1.05E-02	4.76E-03	9.11E-02	5.84E-02	4.35E-03	8.72E-04	4.36E-03	2.12E-01	1.77E-01	2.00E-02	3.88E-02	4.47E-04	2.72E-06	7.13E-04	8.14E-04	2.45E-04	1.41E-06	5.04E-05	5.60E-05	5.33E-03		
846	372541	3797583	Commercial	8.60E-03	3.94E-03	7.49E-02	4.82E-02	3.58E-03	7.17E-04	3.58E-03	1.75E-01	1.46E-01	1.65E-02	3.19E-02	4.07E-04	2.42E-06	6.14E-04	7.24E-04	2.18E-04	1.25E-06	4.47E-05	4.98E-05	4.66E-03		
847	372541	3797683	Commercial	6.21E-03	2.86E-03	5.43E-02	3.48E-02	2.60E-03	5.19E-04	2.60E-03	1.26E-01	1.06E-01	1.19E-02	2.31E-02	3.37E-04	2.01E-06	5.16E-04	6.01E-04	1.81E-04	1.04E-06	3.71E-05	4.13E-05	3.91E-03		
848	372541	3797783	Commercial	3.73E-03	1.71E-03	3.25E-02	2.08E-02	1.56E-03	3.11E-04	1.56E-03	7.58E-02	6.33E-02	7.16E-03	1.38E-02	3.41E-04	2.03E-06	5.26E-04	6.08E-04	1.83E-04	1.05E-06	3.76E-05	4.18E-05	4.00E-03		
849	372541	3797883	Commercial	6.22E-03	2.85E-03	5.42E-02	3.47E-02	2.59E-03	5.18E-04	2.59E-03	1.26E-01	1.05E-01	1.19E-02	2.31E-02	2.89E-04	1.72E-06	4.62E-04	5.14E-04	1.55E-04	8.91E-07	3.19E-05	3.53E-05	3.48E-03		
850	372541	3797983	Commercial	7.41E-03	3.40E-03	6.47E-02	4.15E-02	3.09E-03	6.19E-04	3.09E-03	1.51E-01	1.26E-01	1.42E-02	2.75E-02	2.93E-04	1.74E-06	4.42E-04	5.28E-04	1.57E-04	9.03E-07	3.23E-05	3.58E-05	3.48E-03		
851	372641	3797383	Commercial	2.16E-02	9.89E-03	1.88E-01	1.20E-01	8.99E-03	1.80E-03	8.99E-03	4.38E-01	3.68E-01	4.13E-02	8.00E-02	8.59E-04	5.08E-06	1.31E-03	1.52E-03	4.99E-04	2.84E-06	9.41E-05	1.05E-04	9.89E-03		
852	372641	3797483	Commercial	1.03E-02	4.70E-03	8.94E-02	5.73E-02	4.28E-03	8.55E-04	4.28E-03	2.08E-01	1.74E-01	1.97E-02	3.81E-02	6.84E-04	4.07E-06	1.03E-03	1.22E-03	3.97E-04	2.26E-06	7.49E-05	8.37E-05	7.87E-03		
853	372641	3797583	Commercial	7.81E-03	3.58E-03	6.80E-02	4.36E-02	3.25E-03	6.51E-04	3.25E-03	1.58E-01	1.32E-01	1.50E-02	2.90E-02	4.22E-04	2.51E-06	6.36E-04	7.51E-04	2.26E-04	1.30E-06	4.64E-05	5.17E-05	4.82E-03		
854	372641	3797683	Commercial	2.47E-03	1.13E-03	2.15E-02	1.38E-02	1.03E-03	2.06E-04	1.03E-03	5.02E-02	4.19E-02	4.74E-03	9.17E-03	2.94E-04	1.75E-06	4.70E-04	5.22E-04	1.58E-04	9.07E-07	3.23E-05	3.60E-05	3.53E-03		
855	372641	3797783	Commercial	-8.76E-03	-4.01E-03	-7.62E-02	-4.89E-02	-3.65E-03	-7.29E-04	-3.65E-03	-1.76E-01	-1.48E-01	-1.65E-02	-3.25E-02	3.09E-04	1.84E-06	4.77E-04	5.50E-04	1.66E-04	9.54E-07	3.41E-05	3.79E-05	3.61E-03		
856	372641	3797883	Commercial	5.38E-03	2.47E-03	4.69E-02	3.01E-02	2.24E-03	4.49E-04	2.24E-03	1.09E-01	9.13E-02	1.03E-02	2.00E-02	2.89E-04	1.72E-06	4.55E-04	5.16E-04	1.55E-04	8.93E-07	3.19E-05	3.54E-05	3.43E-03		
857	372641	3797983	Commercial	4.48E-04	2.05E-04	3.90E-03	2.50E-03	1.86E-04	3.73E-05	1.86E-04	9.08E-03	7.59E-03	8.58E-04	1.66E-03	2.93E-04	1.74E-06	4.70E-04	5.29E-04	1.60E-04	9.21E-07	3.29E-05	3.65E-05	3.54E-03		
858	372741	3797383	Commercial	-1.07E-02	-4.91E-03	-9.33E-02	-5.99E-02	-4.48E-03	-8.93E-04	-4.48E-03	-2.17E-01	-1.82E-01	-2.03E-02	-3.97E-02	2.99E-04	1.78E-06	4.62E-04	5.28E-04	1.61E-04	9.25E-07	3.29E-05	3.63E-05	3.43E-03		
859	372741	3797483	Commercial	-2.26E-02	-1.05E-02	-1.99E-01	-1.28E-01	-9.63E-03	-1.91E-03	-9.63E-03	-4.64E-01	-3.89E-01	-4.33E-02	-8.49E-02	2.70E-04	1.61E-06	4.18E-04	4.80E-04	1.46E-04	8.34E-07	2.98E-05	3.31E-05	3.16E-03		
860	372741	3797583	Commercial	-2.66E-02	-1.23E-02	-2.33E-01	-1.50E-01	-1.12E-02	-2.22E-03	-1.12E-02	-5.40E-01	-4.54E-01	-5.13E-02	-9.93E-02	2.76E-04	1.64E-06	4.30E-04	4.91E-04	1.48E-04	8.51E-07	3.04E-05	3.38E-05	3.24E-03		
861	372741	3797683	Commercial	-2.44E-02	-1.12E-02	-2.13E-01	-1.38E-01	-1.02E-02	-2.04E-03	-1.02E-02	-4.96E-01	-4.16E-01	-4.63E-02	-9.06E-02	2.41E-04	1.43E-06	3.87E-04	4.28E-04	1.29E-04	7.40E-07	2.66E-05	2.95E-05	2.90E-03		
862	372741	3797783	Commercial	-1.64E-02	-7.51E-03	-1.43E-01	-9.19E-02	-6.82E-03	-1.36E-03	-6.82E-03	-3.32E-01	-2.78E-01	-3.14E-02	-6.07E-02	2.32E-04	1.38E-06	3.76E-04	4.13E-04	1.25E-04	7.16E-07	2.57E-05	2.84E-05	2.82E-03		
863	372841	3797383	Commercial	-8.76E-02	-4.02E-02	-7.63E-01	-4.89E-01	-3.65E-02	-7.30E-03	-3.65E-02	-1.76E+00	-1.48E+00	-1.65E-01	-3.25E-01	2.33E-03	1.50E-05	3.93E-03	4.30E-03	1.36E-03	7.78E-06	2.79E-04	3.10E-04	2.97E-03		
864	372841	3797983	Commercial	-1.72E-02	-3.31E-02	-5.33E-01	-4.06E-01	-3.03E-02	-6.05E-03	-3.03E-02	-1.47E+00	-1.23E+00	-1.39E-01	-2.69E-01	2.40E-04	1.42E-06	3.76E-04	4.27E-04	1.29E-04	7.40E-07	2.65E-05	2.93E-05	2.85E-03		
865	372841	3798083	Commercial	-1.89E-03	-8.66E-04	-1.64E-02	-1.05E-02	-7.87E-04	-1.57E-04	-7.87E-04	-3.83E-02	-3.20E-02	-3.62E-03	-7.00E-03	2.88E-04	1.64E-06	3.83E-04	4.60E-04	1.36E-04	7.96E-07	2.83E-05	3.16E-05	2.93E-03		
866	372838	3798865	Commercial	-1.92E-02	-8.81E-03	-1.67E-01	-1.07E-01	-8.01E-03	-1.60E-03	-8.01E-03	-3.90E-01	-3.26E-01	-3.68E-02	-7.13E-02	4.02E-04	2.39E-06	6.08E-04	7.16E-04	2.16E-04	1.24E-06	4.42E-05	4.93E-05	4.61E-03		
867	372900	3798500	Commercial	-9.85E-03	-4.36E-03	-8.31E-02	-5.33E-02	-3.98E-03	-7.96E-04	-3.98E-03	-1.94E-01	-1.62E-01	-1.83E-02	-3.54E-02	3.48E-04	2.07E-06	5.26E-04	6.20E-04	1.87E-04	1.07E-06	3.83E-05	4.27E-05	3.99E-03		
868	372900	3763900	Commercial	1.42E-03	6.90E-04	1.23E-02	7.91E-03	5.91E-04	1.18E-04	5.91E-04	2.88E-02	2.40E-02	2.72E-03	5.26E-03	8.64E-05	5.14E-07	9.80E-05	1.54E-04	4.61E-05	2.67E-07	9.27E-06	1.06E-05	7.81E-04		
869	372900	3764500	Commercial	8.22E-04	3.77E-04	7.15E-03	4.59E-03	3.42E-04	6.85E-05	3.42E-04	1.67E-02	1.39E-02	1.57E-03	3.05E-03	7.72E-05	4.59E-07	9.22E-05	1.37E-04	4.12E-05	2.39E-07	8.31E-06	9.44E-06	7.28E-04		
870	372941	3797783	Commercial	5.43E-03	1.57E-03	3.99E-02	1.92E-02	1.43E-03	2.86E-04	1.43E-03	6.96E-02	5.81E-02	6.58E-03	1.27E-02	2.24E-04	1.33E-06	3.56E-04	3.99E-04	1.20E-04	6.91E-07	2.31E-05	2.74E-05	2.71E-03		
871	372941	3797883	Commercial	-1.29E-02	-1.51E-02	-2.87E-01	-1.84E-01	-1.37E-02	-2.75E-03	-1.37E-02	-6.68E-01	-5.59E-01	-6.31E-02	-1.22E-01	2.29E-04	1.34E-06	3.92E-04	4.01E-04	1.21E-04	6.94E-07	2.48E-05	2.76E-05	2.64E-03		
872	372941	3797983	Commercial	-2.33E-02	-1.07E-02	-2.03E-01	-1.30E-01	-9.72E-03	-1.94E-03	-9.72E-03	-4.70E-01	-3.93E-01	-4.47E-02	-8.60E-02	2.29E-04	1.36E-06	3.59E-04	4.20E-04	1.26E-04	7.40E-07	2.63E-05	2.81E-05	2.77E-03		
873	373036	3795464	Commercial	8.03E-03	3.68E-03	6.99E-02	4.48E-02	3.35E-03	6.69E-04	3.35E-03	1.63E-01	1.36E-01	1.54E-02	2.98E-02	1.29E-04	7.68E-07	2.12E-04	2.30E-04	6.94E-05	3.99E-07	1.43E-05	1.58E-05	1.58E-03		
874	373036	3795565	Commercial	9.00E-03	4.13E-03	7.84E-02	5.03E-02	3.75E-03	7.50E-04	3.75E-03	1.83E-01	1.53E-01	1.73E-02	3.34E-02	1.43E-04	8.50E-07	2.35E-04	2.54E-04	7.68E-05	4.42E-07	1.58E-05	1.75E-05	1.73E-03		
875	373041	3797783	Commercial	2.63E-02	1.20E-02	2.29E-01	1.47E-01	1.09E-02	2.19E-03	1.09E-02	5.33E-01	4.45E-01	5.03E-02	9.74E-02	2.13E-04	1.26E-06	3.41E-04	3.76E-04	1.14E-04	6.56E-07	2.35E-05	2.60E-05	2.56E-03		
876	373041	3797883	Commercial	1.00E-02	4.60E-03	8.74E-02	5.60E-02	4.18E-03	8.36E-04	4.18E-03	2.04E-01	1.70E-01	1.92E-02	3.72E-02	1.99E-04	1.18E-06	3.14E-04	3.48E-04	1.05E-04	6.07E-07	2.18E-05	2.39E-05	2.35E-03		
877	373041	3797983	Commercial	8.91E-04	4.54E-04	8.63E-03	5.53E-03	4.13E-04	8.26E-05	4.13E-04	2.01E-02	1.68E-02	1.90E-03	3.68E-03	2.12E-04	1.26E-06	3.31E-04	3.76E-04	1.14E-04	6.95E-07	2.34E-05	2.60E-05	2.50E-03		
878	373141	3797783	Commercial	6.70E-03	3.07E-03	5.84E-02	3.74E-02	2.79E-03	5.59E-04	2.79E-03	1.36E+00	1.14E-01	1.28E-02	2.48E-02	2.01E-04	1.19E-06	3.22E-04	3.51E-04	1.08E-04	6.22E-07	2.22E-05	2.46E-05	2.42E-03		
879	373141	3797883	Commercial	3.17E-02	1.46E-02	2.76E-01	1.77E-01	1.32E-02	2.65E-03	1.32E-02	6.44E-01	5.38E-01	6.08E-02	1.18E-01	1.84E-04	1.10E-06	3.00E-04	3.28E-04	9.90E-05	5.69E-07	2.04E-05	2.28E-05	2.25E-03		
880	373141	3797983	Commercial	1.65E-02	7.57E-03	1.44E-01	9.22E-02	6.88E-03	1.38E-03	6.88E-03	3.35E-01	2.80E-01	3.17E-02	6.13E-02	1.92E-04	1.14E-06	3.00E-04	3.41E-04	1.03E-04	5.91E-07	2.11E-05	2.33E-05	2.22E-03		
881	372241	3797783	Commercial	1.21E-02	3.31E-03	8.23E-01	4.01E-01	3.01E-02	6.01E-03	3.01E-02	1.46E+00	1.25E+00	1.38E-01	2.88E-01	1.91E-04	1.14E-06	3.09E-04	3.41E-04	1.03E-04	5.91E-07	2.12E-05	2.34E-05	2.32E-03		
882	372241	3797883	Commercial	3.94E-02	1.81E-02	3.43E-01	2.20E-01	1.64E-02	3.29E-03	1.64E-02	8.00E-01	6.69E-01	7.56E-02	1.46E-01	1.79E-04	1.06E-06	2.91E-04	3.19E-04	9.62E-05	5.53E-07	1.98E-05	2.19E-05	2.18E-03		
883	372241	3797983	Commercial	2.69E-02	1.23E-02	2.33E-01	1.50E-01	1.12E-02	2.25E-03	1.12E-02	5.47E-01	4.57E-01	5.16E-02	9.96E-02	1.74E-04	1.01E-06	2.76E-04	3.04E-04	9.16E-05	5.26E-07	1.88E-05	2.08E-05	2.07E-03		
884	372247	3796834	Commercial	2.09E-02	9.97E-03	1.82E-01	1.17E-01	8.70E-03	1.74E-03	8.70E-03	4.23E-01	3.54E-01	4.00E-02	7.74E-02	2.11E-04	1.26E-06	3.33E-04	3.76E-04	1.13E-04	6.52E-07	2.32E-05	2.59E-05	2.38E-03		
885	372251	3795565	Commercial	1.40E-02	6.40E-03	1.22E-01	7.82E-02	5.82E-03	1.16E-03	5.82E-03	2.83E-01	2.37E-01	2.69E-02	5.16E-02	1.24E-04	7.39E-07	1.94E-04	2.20E-04	6.63E-05	3.83E-07	1.36E-05	1.52E-05	1.40E-03		
886	373239	3795469	Commercial	5.21E-03	2.39E-03	4.54E-02	2.91E-02	2.17E-03	4.34E-04	2.17E-03	1.06E-01	8.84E-02	9.99E-03	1.93E-02	1.19E-04	7.03E-07	1.91E-04	2.11E-04	6.35E-05	3.65E-07	1.31E-05	1.45E-05	1.44E-03		
887	373241	3797783	Commercial	1.61E-03	3.01E-03	5.76E-02	3.66E-02	2.76E-03	5.51E-04	2.76E-03	1.34E-01	1.12E-01	1.27E-02	2.45E-02	1.27E-04	7.49E-07	2.03E-04	2.24E-04	6.78E-05	3.90E-07	1.39E-05	1.54E-05	1.53E-03		
888	373241	3797883	Commercial	7.27E-02	3.33E-02	6.33E-01	4.06E-01	3.03E-02	6.06E-03	3.03E-02	1.47E+00	1.23E+00	1.39E-01	2.69E-01	1.87E-04	1.11E-06	3.00E-04	3.30E-04	1.00E-04	5.77E-07	2.07E-05	2.29E-05	2.27E-03		
889	373241	3797983	Commercial	4.28E-02	1.96E-02	3.73E-01	2.39E-01	1.79E-02	3.57E-03	1.79E-02	8.68E-01	7.27E-01	8.21E-02	1.59E-01	1.84E-04	1.09E-06	2.96E-04	3.09E-04	9.88E-05	5.69E-07	2.04E-05	2.13E-05	2.11E-03		
890	373341	3797983	Commercial	2.98E-02	1.37E-02	2.60E-01	1.67E-01	1.24E-02	2.49E-03	1.24E-02	6.05E-01	5.07E-01	5.72E-02	1.11E-01	1.57E-04	9.33E-07	2.57E-04	2.76E-04	8.43E-05	4.94E-07	1.74E-05	1.92E-05	1.92E-03		
891	373341	3798083	Commercial	3.10E-02	1.42E-02	2.70E-01	1.73E-01	1.29E-02	2.58E-03	1.29E-02	6.26E-01	5.26E-01	5.94E-02	1.15E-01	2.95E-04	1.75E-06	4.71E-04	5.24E-04	1.58E-04	9.09E-07	3.20E-05	3.61E-05	3.54E-03		
892	373441	3797183	Commercial	1.71E-02	7.85E-03	1.49E-01	9.55E-02	7.13E-03	1.43E-03	7.13E-03	3.46E-01	2.90E-01	3.28E-02	6.35E-02	1.49E-04	8.84E-07	2.43E-04	2.61E-04	7.97E-05	4.67E-07	1.64E-05	1.81E-05	1.82E-03		
893	373441	3797283	Commercial	5.23E-02	2.40E-02	4.56E-01	2.92E-01	2.18E-02	4.36E-03	2.18E-02	1.06E+00	8.87E-01	1.00E-01	1.94E-01	4.19E-04	2.49E-06	6.69E-04	7.47E-04	2.25E-04	1.29E-06	4.63E-05	5.14E-05	4.97E-03		
894	373441	3797383	Commercial	8.32E-02	2.38E-02	5.63E-01	2.90E-01	2.17E-02	4.33E-03	2.17E-02	1.05E+00	8.82E-01	9.94E-02	1.92E-01	3.57E-04	2.12E-06	5.54E-04	6.35E-04	1.91E-04	1.10E-06	3.93E-05	4.37E-05	4.19E-03		
895	373441	3797483	Commercial	5.23E-02	2.41E-02	4.57E-01	2.93E-

Table 2-4.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2035 With Project v. 2035 Without Project
Operation TAC Concentrations

Receptor Number	X	Y	Receptor Type	acetaldehyde (µg/m³)	acrolein (µg/m³)	benzene (µg/m³)	formaldehyde (µg/m³)	methyl alcohol (µg/m³)	methyl ethyl ketone (µg/m³)	styrene (µg/m³)	toluene (µg/m³)	xylene, total (µg/m³)	1,3-Butadiene (µg/m³)	ethyl benzene (µg/m³)	ammonium (µg/m³)	arsenic (µg/m³)	chlorine (µg/m³)	copper (µg/m³)	manganese (µg/m³)	mercury (µg/m³)	nickel (µg/m³)	vanadium (µg/m³)	sulfates (µg/m³)
141	369141	3759497	Fenceline	1.09E-03	4.83E-04	3.27E-05	5.90E-03	4.41E-04	8.81E-05	4.47E-04	2.19E-04	1.77E-04	2.03E-03	3.62E-03	8.49E-06	3.81E-08	2.46E-05	1.12E-05	3.57E-06	1.99E-06	7.99E-07	7.66E-07	1.71E-04
142	369217	3759091	Fenceline	6.41E-04	2.84E-04	5.58E-03	3.86E-03	2.67E-04	5.34E-05	2.67E-04	1.30E-02	1.09E-02	1.23E-03	2.38E-03	4.21E-03	2.48E-05	3.94E-03	7.22E-05	2.22E-03	1.30E-05	4.31E-04	5.01E-04	3.24E-02
143	369233	3759498	Fenceline	7.79E-03	2.22E-04	1.56E-02	7.47E-04	1.98E-04	3.47E-04	3.04E-02	3.04E-02	3.04E-02	3.34E-03	6.60E-03	3.40E-04	3.81E-08	2.36E-05	7.75E-05	2.40E-05	1.97E-06	5.52E-05	5.28E-07	1.86E-04
144	369268	3759146	Fenceline	1.83E-03	8.39E-04	1.59E-02	1.02E-02	7.62E-04	1.52E-04	7.62E-04	3.71E-02	3.10E-02	3.51E-03	6.79E-03	4.99E-03	2.94E-05	4.53E-03	8.56E-05	2.63E-05	1.54E-06	5.10E-04	5.94E-04	3.76E-02
145	369272	3759257	Fenceline	1.63E-03	7.43E-04	1.41E-02	9.05E-03	6.76E-04	1.35E-04	6.76E-04	3.29E-02	2.75E-02	3.11E-03	6.02E-03	4.43E-03	2.61E-05	4.02E-03	7.60E-05	2.33E-05	1.37E-06	4.53E-04	5.27E-04	3.33E-02
146	369323	3759087	Fenceline	1.38E-03	6.39E-04	1.21E-02	7.73E-03	5.77E-04	1.15E-04	5.77E-04	2.81E-02	2.35E-02	2.65E-03	5.14E-03	8.27E-03	4.87E-05	7.86E-03	1.42E-04	4.33E-03	2.55E-06	8.46E-04	9.84E-04	6.46E-02
147	369328	3759304	Fenceline	9.50E-04	4.16E-04	8.15E-03	5.61E-03	3.96E-04	7.92E-05	3.96E-04	1.92E-02	1.60E-02	1.81E-03	3.51E-03	1.90E-03	1.12E-05	1.81E-03	3.26E-05	1.00E-03	5.87E-07	1.95E-04	2.26E-04	1.49E-02
148	369330	3759493	Fenceline	2.45E-04	1.12E-03	2.13E-02	1.37E-02	1.02E-03	2.04E-04	1.02E-03	4.99E-02	4.15E-02	4.69E-03	9.07E-03	2.78E-06	1.60E-08	1.29E-05	4.87E-06	1.46E-03	8.52E-09	4.12E-07	4.27E-07	3.28E-05
149	369342	3757940	Fenceline	1.10E-03	5.02E-04	9.64E-03	6.12E-03	4.96E-04	9.93E-05	4.56E-04	2.22E-02	1.86E-02	2.10E-03	4.06E-03	3.97E-03	2.34E-05	3.91E-03	2.69E-05	2.08E-03	1.22E-05	4.08E-04	4.72E-04	3.18E-02
150	369343	3759429	Fenceline	1.34E-03	6.13E-04	1.16E-02	7.47E-03	5.97E-04	1.19E-04	5.97E-04	2.71E-02	2.27E-02	2.57E-03	4.97E-03	1.76E-03	1.04E-05	1.68E-03	3.03E-05	9.31E-04	5.45E-07	1.81E-04	2.10E-04	1.38E-02
151	369357	3759507	Fenceline	1.25E-03	5.74E-04	1.09E-02	6.99E-03	5.22E-04	1.04E-04	5.22E-04	2.54E-02	2.12E-02	2.40E-03	4.64E-03	1.19E-03	7.06E-06	1.15E-03	1.97E-03	6.31E-04	3.69E-07	1.23E-04	1.42E-04	9.63E-03
152	369409	3759059	Fenceline	1.47E-03	6.72E-04	1.28E-02	8.18E-03	6.51E-04	1.30E-04	6.51E-04	2.97E-02	2.48E-02	2.81E-03	5.44E-03	5.84E-03	3.44E-05	5.76E-03	1.04E-04	3.18E-03	1.87E-06	6.23E-04	7.22E-04	4.86E-02
153	369427	3759643	Fenceline	3.12E-03	1.43E-03	2.72E-02	1.74E-02	1.30E-03	2.60E-04	1.30E-03	6.33E-02	5.29E-02	5.98E-03	1.16E-02	2.23E-06	1.32E-08	2.16E-05	3.97E-06	1.13E-06	6.89E-09	3.68E-07	2.66E-07	1.43E-04
154	369469	3759594	Fenceline	1.62E-03	7.43E-04	1.41E-02	9.05E-03	6.76E-04	1.35E-04	6.76E-04	3.29E-02	2.75E-02	3.11E-03	6.02E-03	2.96E-03	1.74E-05	2.87E-03	1.60E-04	5.04E-03	2.97E-06	1.03E-03	1.19E-03	8.04E-02
155	369524	3759642	Fenceline	3.48E-03	1.60E-03	3.03E-02	1.95E-02	1.45E-03	2.90E-04	1.45E-03	7.07E-02	5.91E-02	6.68E-03	1.29E-02	3.27E-06	1.93E-08	2.24E-05	5.79E-06	1.65E-06	1.01E-08	4.73E-07	3.89E-07	1.49E-04
156	369540	3759083	Fenceline	1.08E-03	4.99E-04	9.44E-03	6.03E-03	4.90E-04	9.79E-05	4.50E-04	2.19E-02	1.83E-02	2.07E-03	4.00E-03	7.47E-04	4.40E-06	7.37E-04	1.23E-03	3.97E-04	2.31E-07	7.72E-05	8.89E-05	6.06E-03
157	369621	3759540	Fenceline	3.82E-03	1.61E-03	3.06E-02	1.96E-02	1.47E-03	2.93E-04	1.47E-03	7.14E-02	5.97E-02	6.75E-03	1.31E-02	0.00E+00	0.00E+00	2.06E-05	1.47E-07	1.47E-07	0.00E+00	1.47E-07	0.00E+00	1.32E-04
158	369650	3759582	Fenceline	3.63E-03	4.72E-04	8.98E-03	5.74E-03	4.29E-04	4.29E-04	2.09E-03	1.74E-02	1.74E-02	3.83E-03	6.82E-03	3.98E-04	8.94E-06	1.14E-03	2.04E-06	6.83E-05	7.86E-07	5.91E-06	1.77E-04	5.81E-03
159	369710	3758581	Fenceline	8.63E-04	4.09E-04	7.77E-03	4.96E-03	3.96E-04	7.92E-05	3.96E-04	1.92E-02	1.60E-02	1.81E-03	3.51E-03	6.60E-03	3.96E-05	6.39E-03	9.70E-04	3.96E-03	2.04E-06	6.82E-05	7.85E-05	5.35E-03
160	369718	3759439	Fenceline	3.30E-03	1.51E-03	2.88E-02	1.85E-02	1.38E-03	2.76E-04	1.38E-03	6.71E-02	5.60E-02	6.33E-03	1.23E-02	0.00E+00	0.00E+00	2.10E-05	1.50E-07	1.50E-07	0.00E+00	1.50E-07	0.00E+00	1.35E-04
161	369787	3759237	Fenceline	1.38E-03	6.68E-04	1.21E-02	7.73E-03	5.77E-04	1.15E-04	5.77E-04	2.81E-02	2.35E-02	2.65E-03	5.14E-03	2.46E-03	1.44E-05	2.38E-03	4.03E-05	1.24E-03	7.26E-07	2.46E-04	8.15E-05	4.45E-03
162	369788	3759398	Fenceline	1.39E-03	6.21E-04	1.18E-02	7.96E-03	5.85E-04	1.13E-04	5.68E-04	2.73E-02	2.30E-02	2.60E-03	5.02E-03	7.14E-04	4.21E-06	7.23E-04	1.22E-03	3.74E-04	2.22E-06	7.39E-05	8.59E-05	5.86E-03
163	369789	3759049	Fenceline	1.16E-03	5.33E-04	1.01E-02	6.45E-03	5.13E-04	1.03E-04	4.81E-04	2.34E-02	1.96E-02	2.21E-03	4.33E-03	1.90E-03	1.12E-05	1.81E-03	3.26E-05	1.00E-03	5.87E-07	1.95E-04	2.26E-04	1.49E-02
164	369815	3759548	Fenceline	2.63E-03	1.21E-03	2.29E-02	1.47E-02	1.10E-03	2.19E-04	1.10E-03	5.34E-02	4.47E-02	5.05E-03	9.77E-03	0.00E+00	0.00E+00	2.17E-05	1.55E-07	1.55E-07	0.00E+00	1.55E-07	0.00E+00	1.39E-04
165	369883	3759625	Fenceline	9.81E-04	4.50E-04	8.55E-03	5.48E-03	4.09E-04	8.18E-05	4.09E-04	1.98E-02	1.66E-02	1.87E-03	3.62E-03	2.14E-03	1.19E-05	1.93E-03	3.62E-05	1.12E-03	6.52E-07	2.16E-04	2.51E-04	1.65E-02
166	369918	3759498	Fenceline	1.31E-03	6.01E-04	1.14E-02	7.32E-03	5.46E-04	1.09E-04	5.46E-04	2.66E-02	2.22E-02	2.51E-03	4.86E-03	0.00E+00	0.00E+00	2.27E-05	1.62E-07	0.00E+00	0.00E+00	1.62E-07	0.00E+00	1.46E-04
167	369919	3759203	Fenceline	1.09E-03	4.98E-04	9.44E-03	6.03E-03	4.90E-04	9.79E-05	4.50E-04	2.19E-02	1.83E-02	2.07E-03	4.00E-03	1.78E-03	1.04E-05	1.72E-03	3.03E-05	9.31E-04	5.45E-07	1.81E-04	2.10E-04	1.38E-02
168	370009	3759595	Fenceline	2.83E-04	1.30E-04	2.46E-03	1.58E-03	1.18E-04	2.36E-05	1.18E-04	5.73E-03	4.79E-03	5.42E-04	1.05E-03	0.00E+00	0.00E+00	2.49E-05	1.78E-07	1.78E-07	0.00E+00	1.78E-07	0.00E+00	1.60E-04
169	370056	3759282	Fenceline	8.53E-04	3.91E-04	7.43E-03	4.76E-03	3.95E-04	7.91E-05	3.95E-04	1.73E-02	1.48E-02	1.63E-03	3.14E-03	6.34E-04	3.95E-06	8.60E-04	9.16E-04	2.84E-04	1.65E-07	5.51E-05	6.35E-05	4.65E-03
170	370116	3759543	Fenceline	5.44E-04	2.52E-04	4.78E-03	3.08E-03	2.56E-04	5.12E-05	2.56E-04	1.14E-02	9.51E-03	1.04E-03	2.01E-03	2.07E-03	1.16E-05	1.68E-03	2.64E-05	8.13E-04	4.75E-07	1.58E-04	1.84E-04	1.21E-02
171	370131	3759282	Fenceline	8.61E-04	3.99E-04	7.50E-03	4.81E-03	3.99E-04	7.98E-05	3.59E-04	1.70E-02	1.46E-02	1.66E-03	3.19E-03	4.64E-04	2.74E-06	5.18E-04	7.97E-04	2.44E-04	1.43E-06	4.82E-05	5.53E-05	4.11E-03
172	370164	3759452	Fenceline	7.13E-04	3.29E-04	6.21E-03	3.97E-03	3.29E-04	6.58E-05	3.29E-04	1.58E-02	1.32E-02	1.50E-03	2.91E-03	2.50E-03	1.40E-05	2.03E-03	3.19E-05	9.82E-04	5.74E-07	1.91E-04	2.22E-04	1.46E-02
173	370227	3758199	Fenceline	1.09E-03	4.84E-04	9.06E-03	5.90E-03	4.40E-04	8.80E-05	4.04E-04	2.14E-02	1.79E-02	2.02E-03	3.92E-03	4.08E-04	2.41E-06	4.22E-04	7.00E-04	2.14E-04	1.26E-06	4.21E-05	4.86E-05	3.40E-03
174	370228	3759221	Fenceline	8.31E-04	4.27E-04	8.11E-03	5.20E-03	4.00E-04	8.00E-05	4.00E-04	1.92E-02	1.60E-02	1.81E-03	3.51E-03	3.96E-04	2.34E-06	4.09E-04	6.79E-04	2.07E-04	1.22E-06	4.08E-05	4.71E-05	3.29E-03
175	370228	3759283	Fenceline	1.31E-03	6.03E-04	1.14E-02	7.34E-03	5.48E-04	1.10E-04	5.48E-04	2.67E-02	2.23E-02	2.52E-03	4.87E-03	3.90E-03	2.30E-05	4.06E-03	6.70E-04	2.05E-04	1.20E-06	4.03E-05	4.64E-05	3.27E-03
176	370253	3759199	Fenceline	1.31E-03	6.03E-04	1.14E-02	7.34E-03	5.48E-04	1.10E-04	5.48E-04	2.67E-02	2.23E-02	2.52E-03	4.87E-03	3.90E-03	2.30E-05	4.06E-03	6.70E-04	2.05E-04	1.20E-06	4.03E-05	4.64E-05	3.27E-03
177	370301	3759540	Fenceline	1.62E-03	7.44E-04	1.41E-02	9.06E-03	6.76E-04	1.35E-04	6.76E-04	3.29E-02	2.75E-02	3.11E-03	6.02E-03	1.20E-02	7.16E-05	1.24E-02	2.06E-03	6.30E-04	3.69E-06	1.27E-03	1.46E-03	9.93E-02
178	370339	3759177	Fenceline	9.13E-04	4.19E-04	7.95E-03	5.10E-03	4.19E-04	8.39E-05	4.19E-04	2.03E-02	1.69E-02	1.91E-03	3.71E-03	3.96E-04	2.34E-06	4.09E-04	6.79E-04	2.07E-04	1.22E-06	4.08E-05	4.71E-05	3.29E-03
179	370367	3759222	Fenceline	5.35E-04	2.48E-04	4.66E-03	2.99E-03	2.23E-04	4.46E-05	2.23E-04	1.09E-02	9.07E-03	1.02E-03	1.98E-03	3.40E-04	2.01E-06	3.60E-04	5.84E-04	1.78E-04	1.05E-06	3.51E-05	4.05E-05	2.88E-03
180	370398	3759449	Fenceline	1.00E-03	4.58E-04	8.72E-03	5.59E-03	4.17E-04	8.34E-05	4.17E-04	2.03E-02	1.70E-02	1.92E-03	3.71E-03	1.16E-03	6.84E-06	1.12E-03	1.92E-03	6.11E-04	3.57E-07	1.19E-04	1.38E-04	9.36E-03
181	370444	3759236	Fenceline	2.90E-04	1.36E-04	2.58E-03	1.65E-03	1.23E-04	2.46E-05	1.23E-04	5.98E-03	5.00E-03	5.66E-04	1.09E-03	1.16E-03	6.84E-06	1.12E-03	1.92E-03	6.11E-04	3.57E-07	1.19E-04	1.38E-04	9.36E-03
182	370423	3759284	Fenceline	1.04E-03	4.79E-04	9.03E-03	5.76E-03	4.32E-04	8.64E-05	4.32E-04	2.10E-02	1.76E-02	1.99E-03	3.84E-03	2.67E-04	1.57E-06	2.93E-04	4.58E-04	1.40E-04	8.24E-07	2.76E-05	3.19E-05	2.33E-03
183	370438	3759238	Fenceline	1.41E-04	1.83E-04	3.48E-03	2.23E-03	1.67E-04	3.34E-05	1.67E-04	8.11E-03	6.79E-03	7.68E-04	1.48E-03	2.67E-04	1.57E-06	2.93E-04	4.58E-04	1.40E-04	8.24E-07	2.76E-05	3.19E-05	2.33E-03
184	370465	3759455	Fenceline	6.04E-04	2.77E-04	5.26E-03	3.37E-03	2.52E-04	5.03E-05	2.52E-04	1.23E-02	1.02E-02	1.16E-03	2.24E-03	0.00E+00	0.00E+00	2.86E-05	2.04E-07	2.04E-07	0.00E+00	2.04E-07	0.00E+00	1.84E-04
185	370466	3759284	Fenceline	1.04E-03	4.22E-04	9.03E-03	5.76E-03	4.32E-04	8.64E-05	4.32E-04	2.10E-02	1.76E-02	1.99E-03	3.84E-03	2.67E-04	1.57E-06	2.93E-04	4.58E-04	1.40E-04	8.24E-07	2.76E-05	3.19E-05	2.33E-03
186	370558	3759549	Fenceline	1.90E-03	8.69E-04	1.65E-02	1.06E-02	7.90E-04	1.58E-04	7.90E-04	3.85E-02	3.21E-02	3.63E-03	7.03E-03	0.00E+00	0.00E+00	3.76E-05	2.70E-07	2.70E-07	0.00E+00	2.70E-07	0.00E+00	2.43E-04
187	370622	3758281	Fenceline	1.19E-03	5.47E-04	1.04E-02	6.66E-03	4.97E-04	9.93E-05	4.97E-04	2.42E-02	2.02E-02	2.28E-03	4.42E-03	1.69E-03	9.98E-06	1.63E-03	2.91E-03	8.91E-04	5.23E-07	1.73E-04	2.01E-04	1.34E-02
188	370625	3759498	Fenceline	1.98E-03	9.09E-04	1.73E-02	1.11E-02	8.26E-04	1.65E-04	8.26E-04	4.02E-02	3.36E-02	3.80E-03	7.35E-03	0.00E+00	0.00E+00	3.93E-05	2.82E-07	2.82E-07	0.00E+00	2.82E-07	0.00E+00	2.54E-04
189	370649	3759237	Fenceline	2.48E-03	1.13E-03	2.16E-02	1.38E-02	1.03E-03	2.06E-04	1.03E-03	5.02E-02	4.20E-02	4.74E-03	9.19E-03	0.00E+00	0.00E+00	2.62E-05	1.88E-07	1.88E-07	0.00E+00	1.88E-07	0.00E+00	1.69E-04
190	370722	3759280	Fenceline	1.60E-03	4.58E-04	3.77E-03	5.86E-03	3.33E-04	6.67E-05	3.33E-04	2.03E-02	1.76E-02	1.92E-03	3.71E-03	1.57E-04	9.27E-07	1.89E-04	2.70E-04	2.27E-05	4.86E-07	2.77E-05	1.87E-04	1.24E-03
191	370757	3759433	Fenceline	2.61E-03	1.20E-03	2.28E-02	1.46E-02	1.09E-03	2.18E-04	1.09E-03	5.31E-02	4.43E-02	5.01E-03	9.70E-03	0.00E+00	0.00E+00	2.66E-05	1.91E-07	1.91E-07	0.00E+00	1.91E-07	0.00E+00	1.72E-04
192	370758	3759255	Fenceline	2.27E-03	5.82E-04	1.11E-02	7.06E-03	5.26E-04	1.05E-04	5.26E-04	2.58E-02	2.16E-02	2.44E-03	4.71E-03	1.43E-03	8.42E-06	1.37E-03	2.46E-03	7.52E-04	4.41E-07	1.46E-04	1.70E-04	1.14E-02
193	370797	3759107	Fenceline	1.39E-03	6.38E-04	1.21E-02	7.77E-03	6.80E-04	1.36E-04	5.80E-04	2.82E-02	2.36E-02	2.67E-03	5.16E-03	1.79E-04	1.03E-06	2.13E-04	3.00E-04	9.18E-05	5.40E-07	1.82E-05	2.08E-05	1.66E-03
194	370798	3759194	Fenceline	1.04E-03	4.78E-04	9.03E-03	5.76E-03	4.32E-04	8.64E-05	4.32E-04	2.10E-02	1.76E-02	1.99E-03	3.84E-03	2.67E-04	1.57E-06	2.93E-04	4.58E-04	1.40E-04	8.24E-07	2.76E-05	3.19E-05	2.33E-03
195	370799	3759248	Fenceline	9.21E-04	4.22E-04	8.02E-03	5.14E-03	3.84E-04	7.68E-05	3.84E-04	1.87E-02	1.56E-02	1.77E-03	3.42E-03	1.69E-03	9.75E-06	1.74E-03	2.68E-03	9.07E-05	5.11E-06	2.11E-05	1.97E-05	5.00E-04
196	370800	3759231	Fenceline	1.33E-03	6.11E-04	1.16E-02	7.46E-03	5.63E-04	1.13E-04	5.56E-04	2.71E-02	2.27E-02	2.57E-03	4.96E-03	0.00E+00	0.00E+00	2.55E-05	1.83E-07	1.83E-07	0.00E+00	1.83E-07	0.00E+00	1.65E-04
197	370808	3759529	Fenceline	2.66E-03	1.22E-03	2.32E-02	1.49E-02	1.11E-03	2.22E-04	1.11E-03	5.41E-02	4.52E-02	5.11E-03	9.88E-03	0.00E+00	0.00E+00	3.70E-05	2.64E-07	2.64E-07	0.00E+00	2.64E-07	0.00E+00	2.38E-04
198	370809	3759501	Fenceline	1.58E-03	7.26E-04	1.38E-02	8.86E-03	6.60E-04	1.32E-04	6.60E-04	3.21E-02	2.69E-02	3.04E-03	5.87E-03	4.23E-04	2.45E-06	4.29E-04	6.96E-04	2.13E-04	1.25E-06	4.29E-05	4.94E-05	3.47E-03
199	370851	3757885	Fenceline	2.41E-03	1.11E-03	2.12E-02	1.36E-02	1.01E-03	2.02E-04	1.01E-03	4.93E-02	4.12E-02	4.66E-03	9.01E-03	0.00E+00	0.00E+00	4.19E-05	2.99E-07	2.99E-07	0.00E+00	2.99E-07	0.00E+00	3.77E-04
200	370854	3759560	Fenceline	2.81E-03	1.29E-03	2.44E-02	1.57E-02	1.17E-03	2.34E-04	1.17E-03	5.70E-02	4.76E-02	5.38E-03	1.04E-02	0.00E+00	0.00E+00	3.74E-05	2.67E-07	2.67E-07	0.00E+00	2.67E-07	0.00E+00	2.40E-04
201	370859	3759591	Fenceline	1.58E-03	7.26E-04	1.38E-02	8.86E-03	6.60E-04	1.32E-04	6.60E-04	3.21E-02	2.69E-02	3.04E-03	5.87E-03	4.23E-04	2.45E-06	4.29E-04	6.96E-04	2.13E-04	1.25E-06	4.29E-05	4.94E-05	3.47E-03
202	370909	3757839	Fenceline	2.41E-03	1.14E-03	2.16E-02	1.38E-02	1.03E-03	2.06E-04	1.03E-03	5.03E-02	4.20E-02	4.75E-03	9.18E-03	0.00E+00	0.00E+00	4.27E-05	3.04E-07	3.04E-07	0.00E+00	3.04E-07	0.00E+00	3.84E-04
203	370930	3759647	Fenceline	2.95E-03	3.66E-04	6.96E-03	4.46E-03	3.33E-04	6.66E-05	3.33E-04	1.62E-02	1.35E-02	1.53E-03	2.96E-03	0.00E+00	0.00E+00	2.16E-05	1.54E-07	1.54E-07	0.00E+00	1.54E-07	0.00E+00	1.39E-04
204	370932	3759706	Fenceline	6.32E-04	2.90E-04	5.50E-03	3.93E-03	2.63E-04	5.26E-05	2.63E-04	1.28E-02	1.07E-02	1.21E-03	2.34E-03	6.60E-04	3.89E-06	4.52E-04	4.39E-04	3.67E-04	2.04E-06	3.29E-05	7.99E-05	2.91E-04
205	370959	3757378	Fenceline	3.22E-03	1.48E-03	2.82E-02	1.80E-02	1.34E-03	2.69E-04	1.34E-03	6.53E-02	5.46E-02	6.17E-03	1.19E-02	0.00E+00	0.00E+00	1.98E-05	8.42E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.86E-04
206	370960	3757296	Fenceline	5.61E-03	2.57E-03	4.89E-02	3.11E-02	2.34E-03	4.68E-04	2.34E-03	1.14E-01	9.51E-02	1.08E-02	2.08E-02	1.88E-05	1.11E-07	1.05E-04	3.29E-05	1.09E-05	5.81E-08	2.65E-06	2.24E-06	7.07E-04
207	370961	3757214	Fenceline	7.07E-03	3.24E-03	6.15E-02	3.96E-02	2.94E-03	5.89E-04	2.94E-03	1.43E-01	1.20E-01	1.36E-02	2.62E-02	2.53E-05	1.49E-07	1.90E-04	4.13E-05	1.47E-05	7.81E-08	3.01E-06	3.01E-06	9.95E-04
208	370962	3757132	Fenceline	8.51E-03	3.90E-03	7.41E-02	4.75E-02	3.55E-03	7.09E-04	3.55E-03	1.73E-01	1.44E-01	1.63E-02	3.15E-02	3.71E-05	3.37E-05	5.47E-03	9.80E-03	2.99E-03	1.76E-05	5.86E-04	6.80E-04	4.47E-02
209	370963	3757049	Fenceline	1.15E-02	5.27E-03	1.00E-01	6.42E-02	4.79E-03	9.57E-04	4.79E-03	2.33E-01	1.95E-01	2.20E-02	4.25E-02	5.01E-05	4.55E-05	7.38E-03	1.32E-02	4.04E-03	2.38E-05	7.91E-04	9.18E-04	6.03E-02
210	370963	3756987	Fenceline	1.51E-02	6.91E-03	1.31E-01	8.42E-02	6.28E-03	1.26E-03	6.28E-03	3.06E-01	2.56E-01	2.89E-02	5.57E-02	6.63E-05	6.01E-05	9.75E-03	1.74E-02	5.34E-03	3.14E-05	1.04E-03	1.21E-03	7.97E-02

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Table 2-4.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2035 With Project v. 2035 Without Project
Operation TAC Concentrations

Receptor Number	X	Y	Receptor Type	acetaldehyde (µg/m³)	acrolein (µg/m³)	benzene (µg/m³)	formaldehyde (µg/m³)	methyl alcohol (µg/m³)	methyl ethyl ketone (µg/m³)	styrene (µg/m³)	toluene (µg/m³)	xylene, total (µg/m³)	1,3-Butadiene (µg/m³)	ethyl benzene (µg/m³)	ammonium (µg/m³)	arsenic (µg/m³)	chlorine (µg/m³)	copper (µg/m³)	manganese (µg/m³)	mercury (µg/m³)	nickel (µg/m³)	vanadium (µg/m³)	sulfates (µg/m³)
1	369131	3758945	Residential/Commercial	1.60E-03	7.33E-04	1.39E-02	8.87E-03	6.64E-04	1.33E-04	6.86E-04	3.26E-02	2.77E-02	3.07E-03	5.95E-03	3.12E-05	1.97E-07	2.51E-04	4.97E-04	1.78E-04	1.04E-06	3.43E-05	3.97E-05	2.89E-03
2	370191	3758948	Residential/Commercial	1.65E-03	7.57E-04	1.44E-02	9.22E-03	6.88E-04	1.38E-04	6.88E-04	3.39E-02	2.88E-02	3.19E-03	6.18E-03	3.24E-05	2.05E-07	2.61E-04	5.16E-04	1.85E-04	1.08E-06	3.56E-05	4.12E-05	3.00E-03
3	370197	3759318	Residential/Commercial	1.60E-03	4.96E-04	8.83E-03	5.67E-03	4.24E-04	8.47E-05	4.24E-04	2.06E-02	1.75E-02	1.95E-03	3.78E-03	2.96E-05	1.87E-07	2.38E-04	4.71E-04	1.69E-04	9.87E-07	3.25E-05	3.76E-05	2.74E-03
4	370198	3759125	Residential/Commercial	2.48E-03	1.14E-03	2.16E-02	1.38E-02	1.03E-03	2.07E-04	1.03E-03	5.03E-02	4.20E-02	4.75E-03	9.19E-03	4.50E-05	2.85E-07	3.62E-04	7.17E-04	2.57E-04	1.50E-06	4.95E-05	5.72E-05	4.17E-03
5	370347	3759261	Residential/Commercial	2.48E-03	1.14E-03	2.16E-02	1.38E-02	1.03E-03	2.07E-04	1.03E-03	5.03E-02	4.20E

Table 2-4.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2035 With Project v. 2035 Without Project
Operation TAC Concentrations

Receptor Number	X	Y	Receptor Type	acetaldehyde	acrolein	benzene	formaldehyde	methyl alcohol	methyl ethyl ketone	styrene	toluene	xylene, total	1,3-Butadiene	ethyl benzene	ammonium	arsenic	chlorine	copper	manganese	mercury	nickel	vanadium	sulfates
				(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
421	367275	3798000	Residential	4.03E-05	1.84E-05	3.55E-04	2.24E-04	3.35E-04	3.47E-05	8.13E-06	6.81E-04	7.70E-05	3.49E-04	0.00E+00	0.00E+00	3.98E-05	3.34E-07	1.34E-07	0.00E+00	1.34E-07	0.00E+00	1.21E-04	
422	367395	3798098	Residential	3.14E-04	1.44E-04	2.74E-03	1.76E-03	1.31E-04	2.62E-05	1.31E-04	8.39E-03	5.33E-03	8.03E-04	1.17E-03	4.39E-06	2.57E-08	1.77E-05	7.99E-06	2.93E-06	1.34E-08	5.43E-07	5.18E-07	1.21E-04	
423	367380	3798148	Residential	3.19E-03	5.46E-04	1.10E-02	6.98E-03	4.97E-04	9.38E-05	4.97E-04	3.42E-02	2.03E-02	2.36E-03	4.56E-03	1.58E-05	7.76E-08	3.97E-05	2.28E-05	1.06E-05	4.70E-08	1.97E-06	1.07E-06	2.96E-04	
424	367900	3799100	Residential	2.33E-04	1.07E-04	2.02E-03	1.30E-03	9.89E-05	1.94E-05	9.68E-05	4.72E-03	3.94E-03	4.46E-04	8.62E-04	1.12E-06	6.62E-09	8.97E-06	1.98E-06	6.45E-07	3.47E-09	1.72E-07	1.34E-07	5.95E-05	
425	367900	3798200	Residential	9.72E-04	3.08E-04	5.85E-03	3.75E-03	2.80E-04	5.60E-05	2.80E-04	1.96E-02	1.14E-02	1.36E-03	2.49E-03	0.00E+00	0.00E+00	3.36E-05	1.14E-05	4.49E-06	0.00E+00	8.37E-07	4.55E-07	1.26E-04	
426	367900	3794900	Residential	5.42E-04	2.48E-04	4.72E-03	3.02E-03	2.26E-04	4.51E-05	2.26E-04	1.10E-02	9.19E-03	1.04E-03	2.01E-03	3.31E-06	1.96E-08	8.51E-06	6.72E-06	1.77E-06	1.02E-08	3.78E-07	3.94E-07	6.03E-05	
427	367900	3799000	Residential	1.04E-03	4.78E-04	9.05E-03	5.80E-03	4.30E-04	8.59E-05	4.30E-04	3.38E-02	1.98E-02	2.17E-03	3.84E-03	1.98E-05	1.17E-07	1.42E-05	1.44E-05	2.93E-06	1.67E-08	6.15E-06	2.72E-06	2.57E-04	
428	368182	3798098	Residential	9.40E-04	4.33E-04	8.27E-03	5.30E-03	3.99E-04	1.93E-05	1.61E-04	1.82E-03	3.52E-03	1.39E-03	8.17E-03	3.48E-06	2.39E-05	7.47E-06	4.28E-06	1.66E-06	2.46E-06	2.11E-06	1.88E-06	2.12E-05	
429	368417	3797988	Residential	6.29E-04	2.88E-04	5.48E-03	3.51E-03	2.62E-04	5.24E-05	2.62E-04	1.28E-02	1.07E-02	1.21E-03	2.33E-03	2.01E-06	1.18E-08	1.64E-06	3.44E-06	1.09E-06	6.20E-09	2.04E-06	2.39E-06	1.39E-03	
430	368417	3797979	Residential	1.60E-03	3.48E-04	6.95E-03	4.24E-03	3.12E-04	6.23E-05	3.12E-04	1.62E-02	1.16E-02	1.54E-03	2.95E-03	3.38E-06	2.32E-08	1.21E-05	3.39E-06	1.21E-06	1.91E-08	4.14E-06	2.16E-06	1.61E-03	
431	368765	3798080	Residential	7.01E-04	3.21E-04	6.11E-03	3.92E-03	2.92E-04	5.84E-05	2.92E-04	1.42E-02	1.19E-02	1.34E-03	2.60E-03	6.69E-06	3.92E-08	5.44E-06	1.14E-05	3.60E-06	2.05E-08	6.78E-06	7.91E-06	4.61E-03	
432	368900	3794500	Residential	2.64E-04	1.21E-04	2.30E-03	1.47E-03	1.10E-04	2.20E-05	1.10E-04	5.35E-03	4.47E-03	5.06E-04	9.78E-04	1.27E-06	7.50E-09	1.01E-05	2.24E-06	7.31E-07	3.93E-09	1.95E-07	1.52E-07	6.74E-05	
433	368900	3795600	Residential	1.38E-03	6.30E-04	1.20E-02	7.66E-03	5.73E-04	1.15E-04	5.73E-04	2.79E-02	2.33E-02	2.64E-03	5.10E-03	1.30E-05	7.64E-07	1.33E-04	2.22E-04	6.78E-05	4.00E-07	1.32E-05	1.54E-05	9.43E-04	
434	368900	3795700	Residential	1.24E-03	5.67E-04	1.08E-02	6.89E-03	5.16E-04	1.03E-04	5.16E-04	2.51E-02	2.10E-02	2.38E-03	4.59E-03	1.17E-05	6.87E-07	1.20E-04	9.42E-07	5.13E-05	2.93E-07	1.19E-05	1.39E-05	8.52E-04	
435	368900	3796250	Residential	9.17E-04	4.20E-04	7.99E-03	5.12E-03	3.82E-04	7.64E-05	3.82E-04	1.86E-02	1.56E-02	1.76E-03	3.40E-03	0.00E+00	0.00E+00	7.10E-06	6.07E-06	5.07E-06	0.00E+00	1.25E-06	1.03E-06	4.39E-05	
436	368900	3796350	Residential	5.73E-04	2.62E-04	4.99E-03	3.20E-03	2.39E-04	4.77E-05	2.39E-04	1.16E-02	9.75E-03	1.10E-03	2.12E-03	0.00E+00	0.00E+00	4.43E-06	4.36E-06	3.16E-06	0.00E+00	7.82E-07	6.44E-07	2.74E-05	
437	368900	3796450	Residential	9.00E-04	4.15E-04	7.89E-03	5.06E-03	3.78E-04	7.55E-05	3.78E-04	1.84E-02	1.54E-02	1.74E-03	3.36E-03	0.00E+00	0.00E+00	4.00E-06	2.86E-06	2.86E-06	0.00E+00	7.06E-07	4.00E-07	2.57E-05	
438	368900	3796500	Residential	1.06E-03	4.87E-04	9.26E-03	5.93E-03	4.43E-04	8.86E-05	4.43E-04	2.14E-02	1.78E-02	2.01E-03	3.94E-03	1.23E-05	7.25E-08	1.04E-05	1.88E-05	2.73E-06	1.55E-08	5.72E-06	2.53E-06	8.37E-04	
439	369200	3797400	Residential	3.44E-03	6.59E-04	1.25E-02	8.03E-03	5.99E-04	2.02E-05	1.68E-04	1.91E-03	3.70E-03	6.53E-03	3.85E-05	6.03E-03	1.12E-02	3.42E-03	2.02E-05	6.68E-04	7.77E-04	4.97E-02		
440	369284	3799100	Residential	9.99E-04	4.58E-04	8.70E-03	5.58E-03	4.16E-04	8.32E-05	4.16E-04	2.03E-02	1.66E-02	1.91E-03	3.70E-03	6.53E-03	3.85E-05	6.03E-03	1.12E-02	3.42E-03	2.02E-05	6.68E-04	7.77E-04	4.97E-02		
441	369324	3797699	Residential	5.42E-04	7.44E-04	1.41E-02	7.97E-03	1.39E-03	6.77E-04	1.39E-03	1.47E-02	1.98E-02	1.05E-03	1.72E-02	1.23E-05	1.98E-05	1.00E-02	2.23E-05	1.79E-05	1.00E-02	2.46E-02	2.11E-05	4.86E-02		
442	369426	3798942	Residential	1.13E-03	5.22E-04	9.87E-03	6.33E-03	4.72E-04	9.49E-05	4.72E-04	2.30E-02	1.92E-02	2.17E-03	4.20E-03	6.41E-06	3.84E-08	5.54E-06	2.14E-06	1.04E-06	8.21E-09	3.98E-07	2.84E-07	1.61E-04		
443	369600	3799035	Residential	9.24E-04	4.24E-04	8.05E-03	5.15E-03	3.84E-04	7.72E-05	3.87E-04	1.87E-02	1.72E-02	1.77E-03	3.43E-03	5.37E-06	3.16E-08	4.55E-06	1.76E-06	8.55E-07	6.75E-09	3.27E-07	2.33E-07	1.32E-04		
444	369775	3798633	Residential	1.37E-03	6.27E-04	1.19E-02	7.64E-03	5.70E-04	1.14E-04	5.70E-04	2.78E-02	2.32E-02	2.62E-03	5.07E-03	2.74E-04	1.61E-06	3.16E-04	4.70E-04	1.44E-04	8.45E-07	2.84E-05	3.26E-05	2.49E-03		
445	369800	3795300	Residential	6.22E-04	2.85E-04	5.42E-03	3.48E-03	2.59E-04	5.18E-05	2.59E-04	1.26E-02	1.06E-02	1.19E-03	2.31E-03	3.47E-06	2.03E-08	2.93E-06	7.10E-06	1.22E-06	3.72E-09	2.19E-06	7.12E-06	6.81E-04		
446	369900	3795400	Residential	1.23E-03	5.62E-04	1.07E-02	6.84E-03	5.11E-04	1.02E-04	5.11E-04	2.49E-02	2.06E-02	2.34E-03	4.54E-03	1.14E-05	6.74E-07	1.04E-04	2.17E-05	2.49E-05	1.79E-03				
447	369900	3795500	Residential	1.05E-03	4.78E-04	9.10E-03	5.84E-03	4.36E-04	8.71E-05	4.36E-04	2.12E-02	1.76E-02	2.00E-03	3.88E-03	9.74E-06	5.74E-08	8.25E-06	5.47E-07	5.64E-07	9.14E-05				
448	369900	3795600	Residential	1.72E-04	7.89E-05	1.50E-03	9.61E-04	7.17E-05	1.43E-05	7.17E-05	3.49E-03	2.92E-03	3.30E-04	6.38E-04	0.00E+00	0.00E+00	4.95E-06	3.25E-08	3.25E-08	0.00E+00	3.25E-08	0.00E+00	2.93E-05		
449	370000	3798331	Residential	5.82E-03	1.44E-03	2.91E-02	1.87E-02	1.31E-03	2.62E-04	1.31E-03	8.39E-02	5.33E-02	6.03E-03	1.17E-02	4.39E-05	2.57E-07	1.77E-04	7.99E-05	2.93E-05	1.34E-07	5.43E-06	5.18E-06	1.21E-03		
450	370184	3798338	Residential	1.40E-03	6.40E-04	1.22E-02	7.80E-03	5.82E-04	1.16E-04	5.82E-04	2.83E-02	2.37E-02	2.68E-03	5.18E-03	4.39E-04	2.58E-06	4.87E-04	7.53E-04	2.30E-04	1.35E-06	4.55E-05	5.22E-05	3.98E-03		
451	370425	3798337	Residential	1.04E-03	4.77E-04	9.09E-03	5.81E-03	4.34E-04	8.68E-05	4.34E-04	2.11E-02	1.77E-02	1.99E-03	3.86E-03	3.14E-06	1.85E-08	2.66E-06	3.47E-06	1.03E-06	5.96E-09	1.95E-06	3.02E-06	1.39E-03		
452	370702	3798338	Residential	1.94E-03	8.90E-04	1.69E-02	1.08E-02	8.09E-04	1.62E-04	8.09E-04	3.94E-02	3.29E-02	3.72E-03	7.20E-03	1.66E-04	9.77E-07	1.96E-04	2.85E-04	8.71E-05	5.12E-07	1.73E-05	1.97E-05	1.94E-03		
453	370781	3798338	Residential	2.12E-03	9.70E-04	1.84E-02	1.18E-02	8.82E-04	1.76E-04	8.82E-04	4.29E-02	3.59E-02	4.06E-03	7.85E-03	1.54E-04	9.08E-07	1.82E-04	2.65E-04	8.10E-05	4.76E-07	1.61E-05	1.83E-05	1.80E-03		
454	370900	3799500	Residential	5.12E-03	2.35E-03	4.46E-02	2.86E-02	2.13E-03	4.27E-04	2.13E-03	1.04E-01	8.68E-02	9.81E-03	1.90E-02	1.94E-04	1.14E-06	2.06E-04	3.32E-04	1.01E-04	5.97E-07	2.00E-05	2.30E-05	1.67E-03		
455	370900	3798500	Residential	2.53E-03	1.16E-03	2.20E-02	1.41E-02	1.05E-03	2.11E-04	1.05E-03	5.16E-02	4.29E-02	4.85E-03	9.38E-03	1.26E-04	7.41E-07	1.34E-04	2.16E-04	6.57E-05	3.88E-07	1.30E-05	1.49E-05	1.09E-03		
456	370900	3795200	Residential	6.67E-04	3.08E-04	5.85E-03	3.75E-03	2.80E-04	5.60E-05	2.80E-04	1.36E-02	1.14E-02	1.29E-03	2.49E-03	0.00E+00	0.00E+00	6.92E-06	4.94E-06	4.94E-06	0.00E+00	4.94E-06	0.00E+00	4.45E-05		
457	370900	3795300	Residential	1.21E-03	5.55E-04	1.05E-02	6.76E-03	5.05E-04	2.46E-02	2.05E-02	2.32E-03	4.49E-03	0.00E+00	0.00E+00	8.41E-06	4.14E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.76E-05		
458	370900	3795400	Residential	1.04E-03	4.81E-04	9.16E-03	5.88E-03	4.39E-04	8.77E-05	4.39E-04	2.13E-02	1.78E-02	2.01E-03	3.90E-03	1.27E-05	7.47E-08	1.07E-05	1.94E-05	2.81E-06	1.60E-08	5.89E-06	2.61E-06	8.62E-04		
459	370900	3795500	Residential	6.71E-04	3.08E-04	5.85E-03	3.75E-03	2.80E-04	5.60E-05	2.80E-04	1.36E-02	1.14E-02	1.29E-03	2.49E-03	0.00E+00	0.00E+00	6.92E-06	4.94E-06	4.94E-06	0.00E+00	4.94E-06	0.00E+00	4.45E-05		
460	370900	3795600	Residential	1.21E-03	5.55E-04	1.05E-02	6.76E-03	5.05E-04	2.46E-02	2.05E-02	2.32E-03	4.49E-03	0.00E+00	0.00E+00	8.41E-06	4.14E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.76E-05		
461	370900	3795700	Residential	6.04E-04	2.77E-04	5.26E-03	3.37E-03	2.53E-04	5.06E-05	2.53E-04	1.23E-02	1.03E-02	1.16E-03	2.24E-03	0.00E+00	0.00E+00	6.22E-06	4.44E-06	4.44E-06	0.00E+00	4.44E-06	0.00E+00	4.00E-05		
462	371205	3798037	Residential	8.62E-04	3.95E-04	7.50E-03	4.81E-03	3.59E-04	7.19E-05	3.59E-04	1.75E-02	1.46E-02	1.65E-03	3.20E-03	7.72E-05	4.95E-07	9.16E-05	1.32E-04	4.05E-05	2.38E-07	8.04E-06	9.18E-06	7.19E-04		
463	371421	3798131	Residential	1.40E-03	2.38E-04	4.81E-03	2.91E-03	4.97E-04	9.38E-05	4.97E-04	2.03E-02	2.91E-02	9.11E-04	3.44E-03	3.14E-06	1.85E-08	2.66E-06	3.47E-06	1.03E-06	5.96E-09	1.95E-06	3.02E-06	1.39E-03		
464	371551	3798209	Residential	4.93E-04	2.22E-04	4.28E-03	2.75E-03	2.05E-04	4.10E-05	2.05E-04	9.89E-03	8.34E-03	9.43E-04	1.82E-03	2.04E-06	1.20E-08	1.73E-06	3.50E-06	1.07E-06	6.24E-09	2.04E-06	2.43E-06	1.45E-03		
465	371685	3798100	Residential	7.11E-04	3.28E-04	6.23E-03	3.99E-03	2.98E-04	5.96E-05	2.98E-04	1.45E-02	1.21E-02	1.37E-03	2.65E-03	1.91E-06	1.14E-08	1.64E-06	3.44E-06	1.09E-06	6.20E-09	2.04E-06	2.39E-06	1.39E-03		
466	371754	3799200	Residential	1.56E-03	7.14E-04	1.36E-02	8.69E-03	6.49E-04	1.30E-04	6.49E-04	3.16E-02	2.64E-02	2.98E-03	5.77E-03	0.00E+00	0.00E+00	3.01E-05	2.15E-07	2.15E-07	0.00E+00	2.15E-07	0.00E+00	1.93E-04		
467	371808	3799214	Residential	2.99E-03	1.38E-03	2.59E-02	1.65E-02	1.23E-03	2.46E-04	1.23E-03	6.07E-02	5.07E-02	5.71E-03	1.10E-02	0.00E+00	0.00E+00	5.74E-05	2.24E-07	2.24E-07	0.00E+00	2.13E-07	0.00E+00	1.91E-04		
468	371875	3798164	Residential	4.34E-03	2.91E-03	5.63E-02	3.54E-02	2.64E-03	2.64E-03	1.29E-01	1.08E-01	1.22E-02	2.33E-02	0.00E+00	0.00E+00	0.00E+00	3.16E-05	2.27E-07	2.27E-07	0.00E+00	2.27E-07	0.00E+00	2.04E-04		
469	371900	3798500	Residential	4.84E-04	2.22E-04	4.21E-03	2.70E-03	2.02E-04	4.03E-05	2.02E-04	9.82E-03	8.20E-03	9.36E-04	1.79E-03	0.00E+00	0.00E+00	1.87E-06	1.87E-07	1.87E-07	0.00E+00	1.87E-07	0.00E+00	1.68E-05		
470	371900	3798600	Residential	1.63E-03	7.52E-04	1.43E-02	9.16E-03	6.84E-04	1.37E-04	6.84E-04	3.33E-02	2.78E-02	3.14E-03	6.07E-03	0.00E+00	0.00E+00	1.26E-05	9.76E-07	1.97E-06	0.00E+00	1.97E-06	0.00E+00	1.77E-04		
471	371900	3795200	Residential	1.79E-03	8.23E-04	1.56E-02	1.00E-02	7.47E-04	1.49E-04	7.47E-04	3.64E-02	3.04E-02	3.44E-03	6.65E-03	0.24E-05	3.09E-07	5.72E-05	8.99E-05	2.75E-05	1.62E-07	5.43E-06	6.24E-06	4.55E-04		
472	371900	3795300	Residential	1.94E-04	8.94E-05	1.69E-03	1.09E-03	8.09E-05	1.62E-05	8.09E-05	3.94E-03	3.29E-03	3.72E-04	7.20E-04	1.66E-04	9.77E-07	1.96E-04	2.85E-04	8.71E-05	5.12E-07	1.73E-05	1.97E-05	1.94E-03		
473	371934	3798105	Residential	1.47E-02	6.72E-03	1.28E-01	8.19E-02	6.11E-03	1.22E-03	6.11E-03	2.98E-01	2.49E-01	2.81E-02	5.44E-02	2.58E-04	1.52E-06	1.97E-04	4.41E-04	1.34E-04	7.95E-07	2.67E-05	3.06E-05	1.70E-03		
474	372241	3797683	Residential	1.47E-03	4.91E-03	9.33E-02	5.87E-02	4.47E-03	4.47E-03	2.18E-01	1.82E-01	2.06E-02	3.95E-02	6.97E-04	3.47E-06	2.04E-08	2.93E-06	7.10E-06	1.22E-06	3.72E-09	2.19E-06	7.12E-06	6.81E-04		
475	372241	3797683	Residential	1.27E-02	5.81E-03	1.10E-01	7.07E-02	5.28E-03	1.06E-03	5.28E-03	2.57E-01	2.15E-01	2.43E-02	4.70E-02	7.42E-04	4.37E-06	7.24E-04	4.37E-06	7.24E-04	4.37E-06	7.24E-04	4.37E-06	7.24E-04		
476	372241	3797783	Residential	4.77E-03	2.19E-03	4.15E-02	2.66E-02	1.99E-03	3.98E-04	1.99E-03	9.68E-02	8.09E-02	9.13E-03	1.77E-02	2.79E-04	1.64E-06	2.66E-04	1.60E-06	2.66E-04	1.60E-06	2.66E-04	1.60E-06	2.66E-04		
477	372341	3797583	Residential	1.59E-05	7.12E-06	1.39E-04	8.87E-05	6.47E-06	1.29E-06	6.47E-06	3.15E-04	2.63E-04	2.98E-05	5.76E-05	1.08E-03	6.37E-06	1.93E-03	1.86E-03	5.67E-04	3.34E-06	1.11E-04	1.29E-04	8.86E-03		
478	372900	3795500	Residential	4.59E-03	2.10E-03	4.00E-02	2.56E-02	1.91E-03	3.82E-04	1.91E-03	9.31E-02	7.78E-02	8.79E-03	1.70E-02	2.27E-04	1.34E-06	2.16E-04	3.40E-04	3.90E-04	1.22E-06	7.01E-07	2.42E-05	2.70E-05	2.57E-03		
479	372900	3795600	Residential	3.88E-03	1.78E-03	3.38E-02	2.16E-02	1.62E-03	3.23E-04	1.62E-03	7.88E-02	6.58E-02	7.44E-03	1.44E-02	1.84E-04	1.08E-06	1.75E-04	6.72E-05	6.72E-05	0.00E+00	3.29E-06	9.88E-06	4.53E-05	2.34E-03	
480	372900	3795700	Residential	4.47E-03	2.05E-03	3.89E-02	2.50E-02	1.86E-03	3.73E-04	1.86E-03	9.08E-02	7.58E-02	8.57E-03	1.66E-02	1.36E-04	8.00E-07	1.29E-04	2.03E-04	2.34E-04	7.17E-05	4.22E-07	1.45E-05	1.62E-05	1.38E-03	
481	372900	3795800	Residential	2.83E-03	1.29E-03	2.45E-02	1.57E-02	1.17E-03	2.35E-04	1.17E-03	5.72E-02	4.78E-02	5.40E-03	1.04E-02	1.11E-04	6.51E-07	1.05E-04	2.91E-04	3.29E-04	9.88E-07	5.84E-07	2.02E-05	2.25E-05	1.16E-03	
482	373541	3797783	Residential	3.54E-02	1.62E-02	3.08E-01	1.98E-01	1.47E-02	2.95E-03	1.47E-02	7.19E-01	6.00E-01	6.78E-02	1.31E-01	2.14E-03	1.26E-05	1.98E-03	3.66E-03	1.12E-03	6.59E-06	2.19E-04	2.54E-04	1.63E-02		
483	373541	3797883	Residential	3.27E-02	1.50E-02	2.84E-01	1.82E-01	1.36E-02	2.72E-03	1.36E-02	6.63E-01	5.54E-01	6.26E-02	1.21E-01	2.66E-03	1.57E-05	2.46E-03	4.55E-03	1.39E-03	8.21E-06	2.72E-04	3.16E-04	2.03E-02		
484	373541	3797983	Residential	2.75E-02	1.26E-02	2.39E-01	1.53E-01	1.14E-02	2.29E-03	1.14E-02	5.58E-01	4.66E-01	5.27E-02	1.02E-01	2.78E-03	1.64E-05	2.57E-03	4.75E-03	1.45E-03	8.58E-06	2.83E-04	3.31E-04	2.01E-02		
485	373541	3798083	Residential	2.23E-02	1.02E-02	1.93E-01	1.24E-01	9.24E-03	1.85E-03	9.24E-03	4.52E-01	3.76E-01	4.26E-02	8.22E-02	2.66E-03	1.57E-05	2.46E-03	4.55E-03	1.39E-03	8.21E-06	2.72E-04	3.16E-04	1.94E-02		
486	373641	3797083	Residential	2.53E-02	1.15E-02	2.19E-01	1.40E-01	1.05E-02	2.10E-03	1.05E-02	5.11E-01	4.27E-01	4.82E-02	9.33E-02	3.03E-03	2.08E-05	4.37E-03	6.05E-03	1.85E-03	1.09E-05	3.69E-04	4.20E-04	3.40E-02		
487	373641	3797183	Residential	2.31E-02	1.05E-02	2.00E-01	1.28E-01	9.58E-03	1.92E-03	9.58E-03	4.68E-01	3.90E-01	4.41E-02	8.51E-02	2.78E-03	1.64E-05	2.57E-03	4.75E-03	1.45E-03	8.58E-06	2.83E-04	3.31E-04	2.01E-02		
488	373641	3797283	Residential	3.12E-02	1.43E-02	2.71E-01	1.74E-01	1.30E-02	2.60E-03	1.30E-02	6.32E-01	5.29E-01	5.97E-02	1.15E-01	1.96E-03	1.18E-05	1.85E-03	1.90E-03	3.39E-03	1.95E-05	1.90E-03	3.39E-03	1.02E-03	6.03E-06	2.01E-04	2.32E-04	1.95E-02

Table 2-4.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2035 With Project v. 2035 Without Project
Operation TAC Concentrations

Receptor Number	X	Y	Receptor Type	acetaldehyde	acrolein	benzene	formaldehyde	methyl alcohol	methyl ethyl ketone	styrene	toluene	xylene, total	1,3-Butadiene	ethyl benzene	ammonium	arsenic	chlorine	copper	manganese	mercury	nickel	vanadium	sulfates
				(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
281	372031	3797756	Fenceline	2.37E-03	1.08E-03	2.09E-02	1.53E-02	3.89E-03	1.07E-03	9.86E-03	4.80E-02	4.07E-02	4.53E-03	8.80E-03	4.80E-05	4.07E-07	4.53E-02	4.77E-02	1.02E-03	3.97E-06	8.94E-04	1.72E-03	5.34E-04	1.59E-05	1.02E-02
282	372034	3795399	Fenceline	8.66E-03	2.99E-03	4.93E-02	3.16E-02	2.36E-03	4.72E-04	2.36E-03	1.55E-01	9.85E-02	1.11E-02	2.16E-02	1.34E-06	7.96E-09	1.22E-06	2.20E-06	3.38E-07	1.65E-09	6.02E-08	1.36E-06	4.15E-05	2.44E-07	8.22E-06
283	372034	3796950	Fenceline	4.32E-03	2.00E-03	3.67E-02	2.27E-02	2.00E-03	4.00E-04	2.00E-03	8.91E-02	7.27E-02	8.09E-03	1.57E-02	1.22E-06	7.24E-09	1.11E-06	2.00E-06	3.08E-07	1.50E-09	5.48E-08	1.24E-06	3.78E-05	2.22E-07	7.48E-06
284	372040	3797423	Fenceline	4.10E-03	1.86E-03	3.57E-02	2.29E-02	1.77E-03	3.47E-04	1.72E-03	1.34E-01	7.12E-02	1.34E-03	5.96E-03	1.77E-07	1.34E-07	5.96E-05	6.99E-02	7.89E-03	1.52E-02	2.06E-03	1.32E-05	2.20E-03	3.04E-03	1.06E-03
285	372098	3797755	Fenceline	4.25E-03	1.06E-03	1.99E-02	1.29E-02	3.95E-03	1.08E-03	1.00E-02	4.87E-02	4.13E-02	4.59E-03	8.93E-03	4.87E-05	4.13E-07	4.59E-02	4.32E-02	8.85E-02	1.17E-03	6.88E-06	1.74E-03	1.08E-03	3.90E-05	2.32E-02
286	372115	3797440	Fenceline	6.41E-03	2.94E-03	5.58E-02	3.58E-02	2.67E-03	5.34E-04	2.67E-03	1.30E-01	1.09E-01	1.23E-02	2.36E-02	2.00E-03	1.18E-05	2

Table 2-A.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2035 With Project v. 2035 Without Project
Operation TAC Concentrations

Receptor Number	X	Y	Receptor Type	acetaldehyde	acrolein	benzene	formaldehyde	methyl alcohol	methyl ethyl ketone	styrene	toluene	xylene, total	1,3-Butadiene	ethyl benzene	ammonium	arsenic	chlorine	copper	manganese	mercury	nickel	vanadium	sulfates
				(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
701	373758	3759043	Residential/Commercial	1.83E-02	8.67E-03	3.65E-01	1.06E-01	7.86E-03	1.59E-03	3.03E-03	3.84E-02	3.21E-01	1.63E-02	7.52E-02	1.60E+03	9.70E-06	1.38E-03	2.82E-03	8.60E-04	5.08E-06	4.97E-06	1.96E-04	1.70E-02
702	373782	3759502	Residential/Commercial	7.43E-03	3.40E-03	6.47E-02	4.15E-02	3.10E-03	6.19E-04	3.10E-03	1.51E-01	1.26E-01	1.42E-02	2.79E-02	2.54E+04	1.92E-06	3.86E-04	4.37E-04	1.34E-04	7.85E-07	2.71E-05	3.03E-05	2.91E-03
703	373814	3759041	Residential/Commercial	1.51E-02	4.13E-03	7.95E-02	1.05E-02	3.76E-03	7.47E-04	3.27E-03	9.83E-02	1.55E-01	1.70E-02	5.03E-02	1.95E+04	1.95E-06	7.18E-04	3.22E-04	9.93E-05	5.81E-07	3.31E-05	3.69E-05	6.91E-03
704	373980	3758638	Residential/Commercial	3.09E-03	1.40E-03	2.67E-02	1.71E-02	1.28E-03	2.55E-04	1.28E-03	6.22E-02	5.20E-02	5.87E-03	1.15E-02	5.84E+03	7.91E-07	1.59E-04	1.43E-04	4.39E-05	2.57E-07	9.78E-06	9.92E-06	8.84E-04
705	374058	3759197	Residential/Commercial	1.51E-02	5.09E-03	9.67E-02	6.20E-02	4.61E-03	9.20E-04	4.63E-03	2.27E-01	1.88E-01	2.11E-02	4.17E-02	2.10E+04	2.87E-06	5.73E-04	2.01E-04	4.13E-05	2.66E-06	3.56E-05	1.30E-04	8.84E-03
706	374271	3759873	Residential/Commercial	6.94E-03	3.18E-03	6.04E-02	3.87E-02	2.89E-03	5.78E-04	2.89E-03	1.41E-01	1.16E-01	1.33E-02	2.57E-02	7.37E+04	4.34E-06	5.88E-04	1.26E-03	3.85E-04	2.27E-06	7.47E-05	8.76E-05	5.02E-03
707	374361	3759743	Residential/Commercial	9.91E-03	4.53E-03	8.62E-02	5.52E-02	4.12E-03	8.24E-04	4.12E-03	2.01E-01	1.67E-01	1.89E-02	3.72E-02	2.19E+04	1.46E-06	4.26E-04	5.47E-04	1.53E-04	9.47E-07	3.47E-05	4.04E-05	3.47E-03
708	374689	3759885	Residential/Commercial	6.82E-03	3.12E-03	5.94E-02	3.81E-02	2.84E-03	5.68E-04	2.84E-03	1.38E-01	1.16E-01	1.31E-02	2.53E-02	6.71E+04	3.36E-06	4.44E-04	9.97E-04	2.98E-04	1.76E-06	5.78E-05	6.76E-05	3.81E-03
709	374694	3759983	Residential/Commercial	6.81E-03	3.12E-03	5.93E-02	3.80E-02	2.84E-03	5.67E-04	2.84E-03	1.38E-01	1.15E-01	1.30E-02	2.52E-02	5.67E+04	3.34E-06	4.43E-04	9.71E-04	2.96E-04	1.75E-06	5.74E-05	6.74E-05	3.80E-03
710	374717	3760274	Residential/Commercial	1.51E-02	6.91E-03	1.30E-01	8.47E-02	6.30E-03	1.26E-03	6.31E-03	3.08E-01	2.44E-01	2.89E-02	5.68E-02	2.34E+04	4.77E-06	1.46E-03	8.53E-04	2.57E-04	1.63E-06	1.01E-04	1.26E-04	9.97E-03
711	375304	3764538	Residential/Commercial	1.51E-02	6.91E-03	1.30E-01	8.47E-02	6.28E-03	1.26E-03	6.28E-03	3.06E-01	2.56E-01	2.89E-02	5.59E-02	2.49E+04	1.45E-07	2.13E-05	4.21E-05	2.52E-05	5.72E-07	2.88E-04	1.39E-03	1.78E-04
712	375615	3760595	Residential/Commercial	3.04E-03	1.63E-03	3.12E-02	1.99E-02	1.48E-03	2.97E-04	1.48E-03	7.23E-02	6.02E-02	4.23E-03	2.00E-02	2.86E+04	7.28E-07	1.32E-04	4.27E-05	5.05E-06	2.97E-08	1.13E-06	1.15E-06	7.54E-04
713	375718	3759205	Residential/Commercial	4.06E-03	1.86E-03	3.64E-02	2.27E-02	1.69E-03	3.38E-04	1.69E-03	8.24E-02	6.86E-02	7.79E-03	1.51E-02	2.63E+04	1.95E-06	3.01E-04	4.51E-04	1.38E-04	8.10E-07	2.73E-05	3.12E-05	2.37E-03
714	375719	3760441	Residential/Commercial	5.91E-03	2.58E-03	4.77E-02	3.36E-02	2.50E-03	5.00E-04	2.50E-03	1.21E-01	1.01E-01	1.14E-02	2.21E-02	1.01E+04	2.87E-06	2.96E-04	1.61E-04	5.01E-05	2.89E-07	1.03E-05	1.15E-05	6.28E-03
715	375908	3760939	Residential/Commercial	1.51E-02	5.26E-03	1.00E-01	6.41E-03	4.78E-03	9.57E-04	4.78E-03	2.33E-01	1.95E-01	2.20E-02	4.26E-02	1.88E+04	1.11E-06	1.29E-04	3.23E-04	9.83E-05	5.82E-07	1.90E-05	2.61E-05	2.24E-03
716	375921	3760283	Residential/Commercial	1.92E-03	8.78E-04	1.67E-02	1.07E-02	7.98E-04	1.60E-04	7.99E-04	3.89E-02	3.07E-02	7.31E-03	1.38E-02	2.27E+04	6.42E-07	1.16E-04	6.27E-05	2.07E-05	1.06E-07	5.27E-06	5.42E-06	1.66E-04
717	376709	3760388	Residential/Commercial	2.87E-03	1.31E-03	2.50E-02	1.60E-02	1.19E-03	2.39E-04	1.19E-03	5.82E-02	4.86E-02	3.46E-03	1.08E-02	6.96E+04	1.64E-05	2.03E-05	6.22E-06	3.65E-08	1.29E-06	1.41E-06	1.25E-04
718	376814	3759458	Residential/Commercial	2.36E-03	1.08E-03	2.06E-02	1.32E-02	9.86E-04	1.97E-04	9.87E-04	4.81E-02	4.01E-02	4.27E-03	1.13E-02	7.58E+04	2.22E-05	2.80E-05	8.58E-06	5.04E-08	1.78E-06	1.95E-06	1.72E-04
719	377050	3761774	Residential/Commercial	1.45E-03	6.65E-04	1.26E-02	8.10E-03	6.04E-04	1.21E-04	6.04E-04	2.94E-02	2.76E-02	5.33E-03	2.06E-02	1.04E+05	3.52E-04	1.07E-04	3.30E-05	1.93E-07	6.83E-06	7.47E-06	6.59E-04
720	377052	3761912	Residential/Commercial	1.30E-03	6.31E-04	1.20E-02	7.69E-03	5.73E-04	1.15E-04	5.73E-04	2.79E-02	2.33E-02	2.64E-03	5.10E-03	2.10E+04	1.24E-06	1.45E-04	3.60E-04	1.11E-04	6.48E-07	2.11E-05	2.50E-05	1.28E-03
721	377227	3759942	Residential/Commercial	6.44E-03	1.58E-03	3.05E-02	1.82E-02	1.44E-03	2.88E-04	1.44E-03	6.93E-02	5.94E-02	6.60E-03	1.40E-02	8.94E+03	2.77E-06	3.05E-05	1.40E-05	8.94E-07	2.77E-06	6.16E-07	9.86E-05	1.58E-04
722	377238	3763693	Residential/Commercial	6.12E-04	2.80E-04	5.33E-03	3.41E-03	2.55E-04	5.09E-05	2.55E-04	1.24E-02	1.04E-02	1.17E-03	2.27E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.30E-08	0.00E+00	2.97E-05
723	377313	3760925	Residential/Commercial	2.17E-03	9.94E-04	1.89E-02	1.21E-02	9.04E-04	1.81E-04	9.04E-04	4.39E-02	3.51E-02	3.94E-03	8.34E-03	4.69E-05	4.47E-05	2.58E-05	8.99E-07	5.81E-09	2.04E-07	2.22E-07	1.98E-05	2.97E-04
724	377331	3760795	Residential/Commercial	1.10E-03	5.03E-04	9.56E-03	6.13E-03	4.58E-04	9.15E-05	4.58E-04	2.23E-02	1.86E-02	2.10E-03	4.07E-03	2.77E-04	1.63E-04	2.21E-04	4.79E-04	1.45E-04	8.55E-07	2.81E-05	3.30E-05	1.89E-03
725	377342	3764027	Residential/Commercial	7.37E-04	3.38E-04	6.33E-03	4.06E-03	3.07E-04	6.13E-05	3.07E-04	1.47E-02	1.25E-02	1.41E-03	2.70E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.22E-08	0.00E+00	2.89E-05
726	377388	3762578	Residential/Commercial	1.22E-03	5.57E-04	1.06E-02	6.77E-03	5.07E-04	1.01E-04	5.07E-04	2.47E-02	2.06E-02	2.33E-03	4.51E-03	9.11E-05	5.37E-07	6.97E-05	1.58E-04	4.79E-05	2.81E-07	9.26E-06	1.09E-05	5.76E-04
727	377563	3760340	Residential/Commercial	1.53E-03	6.99E-04	1.33E-02	8.47E-03	6.33E-04	1.27E-04	6.34E-04	3.09E-02	2.58E-02	2.92E-03	5.66E-03	1.14E-04	6.73E-07	8.74E-05	1.98E-04	6.00E-05	3.52E-07	1.16E-05	1.37E-05	7.22E-04
728	377763	3759273	Residential/Commercial	2.64E-03	1.17E-03	2.22E-02	1.42E-02	1.06E-03	2.12E-04	1.06E-03	5.16E-02	4.32E-02	4.88E-03	9.44E-03	2.07E-04	1.22E-06	1.69E-04	3.58E-04	1.08E-04	6.40E-07	2.11E-05	2.47E-05	1.40E-03
729	377840	3764649	Residential/Commercial	6.03E-04	2.77E-04	5.27E-03	3.38E-03	2.52E-04	5.04E-05	2.52E-04	1.23E-02	1.03E-02	1.16E-03	2.24E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.97E-08	0.00E+00	2.67E-05
730	377847	3762427	Residential/Commercial	1.31E-03	5.98E-04	1.14E-02	7.26E-03	5.44E-04	1.09E-04	5.44E-04	2.65E-02	2.21E-02	2.50E-03	4.84E-03	1.96E-04	1.16E-06	1.50E-04	3.42E-04	1.03E-04	6.13E-07	2.02E-05	2.36E-05	1.23E-03
731	377908	3762502	Residential/Commercial	1.04E-03	4.76E-04	9.09E-03	5.80E-03	4.33E-04	8.66E-05	4.33E-04	2.11E-02	1.76E-02	1.99E-03	3.85E-03	5.60E-05	3.30E-07	4.30E-05	9.79E-05	2.97E-05	1.76E-07	5.78E-06	6.77E-06	3.75E-04
732	377916	3760241	Residential/Commercial	2.33E-03	1.06E-03	2.03E-02	1.30E-02	9.69E-04	1.94E-04	9.69E-04	4.72E-02	3.94E-02	4.46E-03	8.62E-03	1.25E-04	7.35E-07	9.61E-05	2.19E-04	6.60E-05	3.92E-07	1.29E-05	1.51E-05	8.40E-04
733	377925	3763043	Residential/Commercial	1.17E-03	5.37E-04	1.02E-02	6.54E-03	4.88E-04	9.77E-05	4.88E-04	2.38E-02	1.98E-02	2.25E-03	4.35E-03	1.53E-05	8.99E-08	1.52E-05	2.62E-05	7.99E-06	4.71E-08	1.55E-06	1.82E-06	1.23E-04
734	377967	3762234	Residential/Commercial	2.22E-03	5.58E-04	1.06E-02	6.31E-03	5.00E-04	9.99E-05	4.47E-04	2.15E-02	1.82E-02	2.06E-03	4.00E-03	1.70E-04	1.01E-06	1.30E-04	2.97E-04	8.95E-05	5.32E-07	1.75E-05	2.05E-05	1.04E-03
735	378004	3763139	Residential/Commercial	9.40E-04	4.31E-04	8.19E-03	5.25E-03	3.92E-04	7.83E-05	3.92E-04	1.91E-02	1.59E-02	1.80E-03	3.49E-03	2.51E-05	1.48E-07	1.95E-05	8.32E-05	5.33E-06	7.74E-11	4.27E-08	2.98E-09	3.84E-05
736	378022	3763997	Residential/Commercial	7.13E-04	3.26E-04	6.21E-03	3.98E-03	2.97E-04	5.94E-05	2.97E-04	1.45E-02	1.21E-02	1.36E-03	2.65E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.12E-08	0.00E+00	2.81E-05
737	378097	3761433	Residential/Commercial	8.09E-04	2.79E-04	5.31E-03	3.40E-03	2.54E-04	5.08E-05	2.54E-04	1.24E-02	1.03E-02	1.17E-03	2.26E-03	1.39E-05	7.99E-07	1.01E-05	2.31E-04	4.07E-05	4.17E-07	1.39E-05	1.61E-05	8.74E-04
738	378121	3763142	Residential/Commercial	9.43E-04	4.32E-04	8.21E-03	5.26E-03	3.93E-04	7.85E-05	3.93E-04	1.91E-02	1.59E-02	1.81E-03	3.50E-03	2.51E-05	1.48E-07	1.95E-05	8.32E-05	5.33E-06	7.74E-11	4.27E-08	2.98E-09	3.84E-05
739	378212	3763512	Residential/Commercial	1.20E-03	5.48E-04	1.04E-02	6.68E-03	4.98E-04	9.97E-05	4.98E-04	2.43E-02	2.03E-02	2.29E-03	4.44E-03	0.00E+00	0.00E+00	0.00E+00	5.55E-06	3.97E-06	3.97E-06	0.00E+00	3.97E-06	3.97E-05
740	378224	3762237	Residential/Commercial	5.66E-04	2.59E-04	4.92E-03	3.16E-03	2.36E-04	4.71E-05	2.36E-04	1.15E-02	9.59E-03	1.08E-03	2.10E-03	1.34E-05	7.68E-07	9.74E-06	2.54E-04	5.77E-06	1.74E-06	1.04E-06	3.40E-05	4.00E-05
741	378327	3764109	Residential/Commercial	1.60E-03	4.69E-04	9.01E-03	5.80E-03	4.33E-04	8.66E-05	4.33E-04	2.11E-02	1.76E-02	1.99E-03	3.85E-03	5.60E-05	3.30E-07	4.30E-05	9.79E-05	2.97E-05	1.76E-07	5.78E-06	6.77E-06	3.75E-04
742	378367	3759075	Residential/Commercial	2.89E-03	1.33E-03	2.52E-02	1.62E-02	1.21E-03	2.41E-04	1.21E-03	5.87E-02	4.91E-02	5.55E-03	1.07E-02	3.37E-05	3.17E-07	4.71E-05	9.21E-05	2.81E-05	1.66E-07	5.48E-06	6.39E-06	3.93E-04
743	378370	3759870	Residential/Commercial	5.03E-04	2.30E-04	4.38E-03	2.81E-03	2.10E-04	4.19E-05	2.10E-04	1.02E-02	8.52E-03	9.60E-04	1.86E-03	1.19E-05	6.82E-07	8.65E-06	2.25E-04	5.12E-06	1.54E-06	9.26E-07	3.02E-05	3.55E-05
744	378782	3760136	Residential/Commercial	8.62E-04	3.95E-04	7.50E-03	4.81E-03	3.59E-04	7.19E-05	3.59E-04	1.75E-02	1.46E-02	1.65E-03	3.20E-03	2.31E-05	1.36E-07	1.77E-05	3.78E-05	1.15E-05	6.81E-08	2.23E-06	2.63E-06	1.45E-04
745	378862	3762733	Residential/Commercial	2.63E-03	7.43E-04	1.47E-02	9.60E-03	7.19E-04	1.44E-04	7.19E-04	3.50E-02	2.92E-02	3.31E-03	6.39E-03	1.85E-04	1.08E-06	1.42E-04	3.24E-04	9.77E-05	5.78E-07	1.91E-05	2.23E-05	1.24E-03
746	378900	3759500	Commercial	2.61E-04	1.20E-04	2.27E-03	1.46E-03	1.09E-04	2.17E-05	1.09E-04	5.30E-03	4.43E-03	5.00E-04	9.68E-04	0.00E+00	0.00E+00	1.03E-05	7.34E-08	7.34E-08	7.34E-08	0.00E+00	7.34E-08	6.61E-05
747	378901	3759500	Commercial	3.13E-03	1.43E-03	2.73E-02	1.75E-02	1.30E-03	2.61E-04	1.30E-03	6.35E-02	5.31E-02	6.00E-03	1.16E-02	2.92E-04	1.71E-06	2.24E-04	5.12E-04	1.54E-04	9.12E-07	3.02E-05	3.55E-05	1.98E-03
748	378902	3759500	Commercial	3.64E-04	1.67E-04	3.17E-03	2.03E-03	1.52E-04	3.04E-05	1.52E-04	7.40E-03	6.18E-03	6.99E-04	1.35E-03	0.00E+00	0.00E+00	0.00E+00	9.19E-06	9.19E-06	9.19E-06	0.00E+00	9.19E-06	8.27E-05
749	378910	3761500	Commercial	6.15E-04	2.82E-04	5.35E-03	3.43E-03	2.56E-04	5.13E-05	2.56E-04	1.25E-02	1.04E-02	1.18E-03	2.28E-03	0.00E+00	0.00E+00	0.00E+00	5.58E-06	0.00E+00	5.58E-06	0.00E+00	0.00E+00	5.02E-05
750	378917	3759500	Commercial	2.61E-04	1.20E-04	2.27E-03	1.46E-03	1.09E-04	2.17E-05	1.09E-04	5.30E-03	4.43E-03	5.00E-04	9.68E-04	0.00E+00	0.00E+00	1.03E-05	7.34E-08	7.34E-08	7.34E-08	0.00E+00	7.34E-08	6.61E-05
751	378918	3759500	Commercial	3.13E-03	1.43E-03	2.73E-02	1.75E-02	1.30E-03	2.61E-04	1.30E-03	6.35E-02	5.31E-02	6.00E-03	1.16E-02	2.92E-04	1.71E-06	2.24E-04	5.12E-04	1.54E-04	9.12E-07	3.02E-05	3.55E-05	1.98E-03
752	378919	3759500	Commercial	3.64E-04	1.67E-04	3.17E-03	2.03E-03	1.52E-04	3.04E-05	1.52E-04	7.40E-03	6.18E-03	6.99E-04	1.35E-03	0.00E+00	0.00E+00	0.00E+00	9.19E-06	9.19E-06	9.19E-06	0.00E+00	9.19E-06	8.27E-05
753	378920	3761500	Commercial	6.15E-04	2.82E-04	5.35E-03	3.43E-03	2.56E-04	5.13E-05	2.56E-04	1.25E-02	1.04E-02	1.18E-03	2.28E-03	0.00E+00	0.00E+00	0.00E+00	5.58E-06	0.00E+00	5.58E-06	0.00E+00	0.00E+00	5.02E-05
754	378921	3759500	Commercial	3.13E-03	1.43E-03	2.73E-02	1.75E-02	1.30E-03	2.61E-04	1.30E-03	6.35E-02	5.31E-02	6.00E-03	1.16E-02	2.92E-04	1.71E-06	2.24E-04	5.12E-04	1.54E-04	9.12E-07	3.02E-05	3.55E-05	1.98E-03
755	378922	3759500	Commercial	3.64E-04	1.67E-04	3.17E-03	2.03E-03	1.52E-04	3.04E-05	1.52E-04	7.40E-03	6.18E-03	6.99E-04	1.35E-03	0.00E+00	0.00E+00	0.00E+00	9.19E-06	9.19E-06	9.19E-06	0.00E+00	9.19E-06	8.27E-05
756	378923	3761500	Commercial	6.15E-04	2.82E-04	5.35E-03	3.43E-03	2.56E-04	5.13E-05	2.56E-04	1.25E-02	1.04E-02	1.18E-03	2.28E-03	0.00E+00	0.00E+00	0.00E+00	5.58E-06	0.00E+00	5.58E-06	0.00E+00	0.00E+00	5.02E-05
757	378924	3759500	Commercial	3.13E-03	1.43E-03	2.73E-02	1.75E-02	1.30E-03	2.61E-04	1.30E-03	6.35E-02	5.31E-02	6.00E-03	1.16E-02	2.92E-04	1.71E-06	2.24E-04	5.12E-04	1.54E-04	9.12E-07	3.02E-05	3.55E-05	1.98E-03
758	378925	3759500	Commercial	3.64E-04	1.67E-04	3.17E-03	2.03E-03	1.52E-04	3.04E-05	1.52E-04	7.40E-03	6.18E-03	6.99E-04	1.35E-03	0.00E+00	0.00E+00	0.00E+00	9.19E-06	9.19E-06	9.19E-06	0.00E+00	9.19E-06	8.27E-05
759	378926	3761500	Commercial	6.15E-04	2.82E-04	5.35E-03	3.43E-03	2.56E-04	5.13E-05	2.56E-04	1.25E-02	1.04E-02	1.18E-03	2.28E-03	0.00E+00	0.00E+00	0.00E+00	5.58E-06	0.00E+00	5.58E-06	0.00E+00	0.00E+00	5.02E-05
760	378927	3759500	Commercial	3.13E-03	1.43E-03	2.73E-02	1.75E-02	1.30E-03	2.61E-04	1.30E-03	6.35E-02	5.31E-02	6.00E-03	1.16E-02	2.92E-04	1.71E-06	2.24E-04	5.12E-04	1.54E-04	9.12E-07	3.02E-05	3.55E-05	1.98E-03
761	378928	3759500	Commercial	3.64E-04	1.67E-04	3.17E-03	2.03E-03	1.52E-04	3.04E-05	1.52E-04	7.40E-03	6.18E-03	6.99E-04	1.35E-03	0.00E+00	0.00E+00	0.00E+00	9.19E-06	9.19E-06	9.19E-06	0.00E+00	9.19E-06	8.27E-05
762	378929	3761500	Commercial	6.15E-04	2.82E-04	5.35E-03	3.43E-03	2.56E-04	5.13E-05	2.56E-04	1.25E-02	1.04E-02	1.18E-03	2.28E-03	0.00E+00	0.00E+00	0.00E+00	5.58E-06	0.00E+00	5.58E-06	0.00E+00	0.00E+00	5.02E-05
763	378930	3759500	Commercial	3.13E-03	1.43E-03	2.73E-02	1.75E-02	1.30E-03	2.61E-04	1.30E-03	6.35E-02	5.31E-02	6.00E-03	1.16E-02	2.92E-04	1.71E-06	2.24E-04	5.12E-04	1.54E-04	9.12E-07	3.02E-05	3.55E-05	1.98E-03
764	378931	3759500	Commercial	3.64E-04	1.67E-04	3.17E-03	2.03E-03	1.52E-04	3.04E-05	1.52E-04	7.40E-03	6.18E-03	6.99E-04	1.35E-03	0.00E+00	0.00E+00	0.00E+00	9.19E-06	9.19E-06	9.19E-06	0.00E+00	9.19E-06	8.27E-05
765	378932	3761500	Commercial	6.15E-04	2.82E-04	5.35E-03	3.43E-03	2.56E-04	5.13E-05	2.56E-04	1.25E-02	1.04E-02	1.18E-03	2.28E-03	0.00E+00	0.00E+00	0.00E+00	5.58E-06	0.00E+00	5.58E-06	0.00E+00	0.00E+00	5.02E-05
766	378933	3759500	Commercial	3.13E-03	1.43E-03	2.73E-02	1.75E-02	1.30E-03	2.61E-04	1.30E-03	6.35E-02	5.31E-02	6.00E-03	1.16E-02	2.92E-04	1.71E-06	2.24E-04	5.12E-04	1.54E-04	9.12E-07	3.02E-05	3.55E-05	1.98E-03
767	378934	3759500	Commercial	3.64E-04	1.67E-04	3.17E-03	2.03E-03	1.52E-04	3.04E-05	1.52E-04	7.40E-03	6.18E-03	6.99E-04	1.35E-03	0.00E+00	0.00E+00	0.00E+00	9.19E-06	9.19E-06	9.19E-06	0.00E+00	9.19E-06	8.27E-05
768	378935	3761500	Commercial	6.15E-04	2.82E-04	5.35E-03	3.43E-03	2.56E-04	5.13E-05	2.56E-04	1.25E-02	1.04E-02	1.18E-03	2.28E-03	0.00E+00	0.00E+00	0.00E+00	5.58E-06	0.00E+00	5.58E-06	0.00E+00	0.00E+00	5.02E-05
769	378936	3759500	Commercial	3.13E-03	1.43E-03	2.73E-02	1.75E-02	1.30E-03	2.61E-04	1.30E-03	6.35E-02	5.31E-02	6.00E-03	1.16E-02	2.92E-04	1.71E-06	2.24E-04	5.12E-04	1.54E-04	9.12E-07	3.02E-05	3.55E-05	1.98E-03
770	378937	3759500	Commercial	3.64E-04	1.67E-04	3.17E-03	2.03E-03	1.52E-04	3.04E-05	1.52E-04	7.40E-03	6.18E-03	6.99E-04	1.35E-03	0.00E+00	0.00E+00	0.00E+00	9.19E-06	9.19E-06	9.19E-06	0.00E+00	9.19E-06	8.27E-05
771	379938	3759500	Commercial	6.15E-04	2.82E-04	5.35E-03	3.43E-03	2.56E-04	5.13E-05	2.56E-04	1.25E-02	1.04E-02	1.18E-03	2.28E-03	0.00E+00	0.00E+00	0.00E+00	5.58E-06	0.00E+00	5.58E-06	0.00E+00	0.00E+00	5.02E-05
772	379939	3759500	Commercial	3.13E-03	1.43E-03	2.73E-02	1.75E-02	1.30E-03	2.61E-04	1.30E-03	6.35E-02	5.31E-02	6.00E-03	1.16E-02	2.92E-04	1.71E-06	2.24E-04	5.12E-04	1.54E-04	9.12E-07	3.02E-05	3.55E-05	1.98E-03
773	379940	3759500	Commercial	3.64E-04	1.67E-04	3.17E-03	2.03E-03	1.52E-04	3.04E-05	1.52E-04	7.40E-03	6.18E-03	6.99E-04	1.35E-03	0.00E+00	0.00E+00	0.00E+00	9.19E-06	9.19E-06	9.19E-06	0.00E+00	9.19E-06	8.27E-05
774	379941	3759500	Commercial	6.15E-04	2.82E-04	5.35E-03	3.43E-03	2.56E-04	5.13E-05	2.56E-04	1.25E-02	1.04E-02	1.18E-03	2.28E-03	0.00E+00	0.00E+00	0.00E+00	5.58E-06	0.00E+00	5.58E-06	0.00E+00	0.00E+00	5.02E-05
775	379942	3759500	Commercial	3.13E-03	1.43E-03	2.73E-02	1.75E-02	1.30E-03	2.61E-04	1.30E-03	6.35E-02	5.31E-02	6.00E-03	1.16E-02	2.92E-04	1.71E-06	2.24E-04	5.12E-04	1.54E-04	9.12E-07	3.02E-05	3.55E-05	1.98E-03
776	379943	3759500	Commercial	3.64E-04	1.67E-04	3.17E-03	2.03E-03	1.52E-04	3.04E-05	1.52E-04	7.40E-03	6.18E-03	6.99E-04	1.35E-03	0.00E+00	0.00E+00	0.00E+00	9.19E-06	9.19E-06	9.19E-06	0.00E+00	9.19E-06	8.27E-05
777	379944	3759500	Commercial	6.15E

Table 2-A.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2035 With Project v. 2035 Without Project
Operation TAC Concentrations

Receptor Number	X	Y	Receptor Type	acetaldehyde (ug/m³)	acrolein (ug/m³)	benzene (ug/m³)	butadiene (ug/m³)	ethylbenzene (ug/m³)	formaldehyde (ug/m³)	methyl ethyl ketone (ug/m³)	methyl isobutyl ketone (ug/m³)	styrene (ug/m³)	toluene (ug/m³)	total xylenes (ug/m³)	1,3-Butadiene (ug/m³)	ammonium (ug/m³)	arsenic (ug/m³)	chlorine (ug/m³)	copper (ug/m³)	manganese (ug/m³)	mercury (ug/m³)	nickel (ug/m³)	vanadium (ug/m³)	sulfates (ug/m³)
841	372541	3797903	Commercial	1.96E-02	1.96E-01	1.09E-02	2.18E-03	1.96E-03	8.06E-03	1.96E-03	1.96E-03	1.96E-03	1.96E-03	1.96E-03	2.18E-03	1.96E-03	1.96E-03	1.96E-03	1.96E-03	1.96E-03	1.96E-03	1.96E-03	1.96E-03	1.96E-03	1.96E-03
842	372541	3797803	Commercial	2.28E-02	1.96E-01	1.23E-02	1.46E-01	8.08E-03	1.23E-03	4.07E-03	1.96E-03	1.96E-03	1.96E-03	5.34E-01	4.33E-01	1.82E-01	1.96E-03	9.76E-03	1.96E-03	1.96E-03	1.96E-03	1.96E-03	1.96E-03	1.96E-03	1.96E-03
843	372541	3797703	Commercial	1.76E-02	1.96E-01	1.03E-02	8.83E-02	7.13E-03	1.47E-03	7.33E-03	1.96E-03	1.96E-03	1.96E-03	3.97E-01	2.09E-01	3.37E-02	6.33E-02	4.33E-03	2.53E-03	1.96E-03	1.96E-03	7.42E-03	1.96E-03	1.96E-03	1.96E-03
844	372541	3797603	Commercial	1.76E-02	1.96E-01	1.03E-02	8.83E-02	7.13E-03	1.47E-03	7.33E-03	1.96E-03	1.96E-03	1.96E-03	3.97E-01	2.09E-01	3.37E-02	6.33E-02	4.33E-03	2.53E-03	1.96E-03	1.96E-03	7.42E-03	1.96E-03	1.96E-03	1.96E-03
845	372541	3797503	Commercial	1.07E-02	1.96E-01	8.03E-03	5.39E-02	4.35E-03	8.95E-04	4.47E-03	1.96E-03	1.96E-03	1.96E-03	2.42E-01	1.27E-01	2.06E-02	3.86E-02	2.64E-03	1.54E-03	1.96E-03	1.96E-03	4.53E-03	1.96E-03	1.96E-03	1.96E-03
846	372541	3797403	Commercial	1.07E-02	1.96E-01	8.03E-03	5.39E-02	4.35E-03	8.95E-04	4.47E-03	1.96E-03	1.96E-03	1.96E-03	2.42E-01	1.27E-01	2.06E-02	3.86E-02	2.64E-03	1.54E-03	1.96E-03	1.96E-03	4.53E-03	1.96E-03	1.96E-03	1.96E-03
847	372541	3797303	Commercial	1.01E-02	1.96E-01	7.87E-03	4.84E-02	3.91E-03	8.03E-04	4.01E-03	1.96E-03	1.96E-03	1.96E-03	2.17E-01	1.14E-01	1.85E-02	3.47E-02	2.37E-03	1.38E-03	1.96E-03	1.96E-03	4.07E-03	1.96E-03	1.96E-03	1.96E-03
848	372541	3797203	Commercial	9.76E-03	1.96E-01	7.71E-03	4.46E-02	3.60E-03	7.40E-04	3.70E-03	1.96E-03	1.96E-03	1.96E-03	2.00E-01	1.05E-01	1.70E-02	3.20E-02	2.18E-03	1.27E-03	1.96E-03	1.96E-03	3.75E-03	1.96E-03	1.96E-03	1.96E-03
849	372541	3797103	Commercial	9.76E-03	1.96E-01	7.71E-03	4.46E-02	3.60E-03	7.40E-04	3.70E-03	1.96E-03	1.96E-03	1.96E-03	2.00E-01	1.05E-01	1.70E-02	3.20E-02	2.18E-03	1.27E-03	1.96E-03	1.96E-03	3.75E-03	1.96E-03	1.96E-03	1.96E-03
850	372541	3797003	Commercial	9.76E-03	1.96E-01	7.71E-03	4.46E-02	3.60E-03	7.40E-04	3.70E-03	1.96E-03	1.96E-03	1.96E-03	2.00E-01	1.05E-01	1.70E-02	3.20E-02	2.18E-03	1.27E-03	1.96E-03	1.96E-03	3.75E-03	1.96E-03	1.96E-03	1.96E-03
851	372541	3796903	Commercial	9.76E-03	1.96E-01	7.71E-03	4.46E-02	3.60E-03	7.40E-04	3.70E-03	1.96E-03	1.96E-03	1.96E-03	2.00E-01	1.05E-01	1.70E-02	3.20E-02	2.18E-03	1.27E-03	1.96E-03	1.96E-03	3.75E-03	1.96E-03	1.96E-03	1.96E-03
852	372541	3796803	Commercial	1.01E-02	1.96E-01	7.87E-03	4.84E-02	3.91E-03	8.03E-04	4.01E-03	1.96E-03	1.96E-03	1.96E-03	2.17E-01	1.14E-01	1.85E-02	3.47E-02	2.37E-03	1.38E-03	1.96E-03	1.96E-03	4.07E-03	1.96E-03	1.96E-03	1.96E-03
853	372541	3796703	Commercial	1.01E-02	1.96E-01	7.87E-03	4.84E-02	3.91E-03	8.03E-04	4.01E-03	1.96E-03	1.96E-03	1.96E-03	2.17E-01	1.14E-01	1.85E-02	3.47E-02	2.37E-03	1.38E-03	1.96E-03	1.96E-03	4.07E-03	1.96E-03	1.96E-03	1.96E-03
854	372541	3796603	Commercial	1.01E-02	1.96E-01	7.87E-03	4.84E-02	3.91E-03	8.03E-04	4.01E-03	1.96E-03	1.96E-03	1.96E-03	2.17E-01	1.14E-01	1.85E-02	3.47E-02	2.37E-03	1.38E-03	1.96E-03	1.96E-03	4.07E-03	1.96E-03	1.96E-03	1.96E-03
855	372541	3796503	Commercial	1.01E-02	1.96E-01	7.87E-03	4.84E-02	3.91E-03	8.03E-04	4.01E-03	1.96E-03	1.96E-03	1.96E-03	2.17E-01	1.14E-01	1.85E-02	3.47E-02	2.37E-03	1.38E-03	1.96E-03	1.96E-03	4.07E-03	1.96E-03	1.96E-03	1.96E-03
856	372541	3796403	Commercial	1.01E-02	1.96E-01	7.87E-03	4.84E-02	3.91E-03	8.03E-04	4.01E-03	1.96E-03	1.96E-03	1.96E-03	2.17E-01	1.14E-01	1.85E-02	3.47E-02	2.37E-03	1.38E-03	1.96E-03	1.96E-03	4.07E-03	1.96E-03	1.96E-03	1.96E-03
857	372541	3796303	Commercial	1.01E-02	1.96E-01	7.87E-03	4.84E-02	3.91E-03	8.03E-04	4.01E-03	1.96E-03	1.96E-03	1.96E-03	2.17E-01	1.14E-01	1.85E-02	3.47E-02	2.37E-03	1.38E-03	1.96E-03	1.96E-03	4.07E-03	1.96E-03	1.96E-03	1.96E-03
858	372541	3796203	Commercial	1.01E-02	1.96E-01	7.87E-03	4.84E-02	3.91E-03	8.03E-04	4.01E-03	1.96E-03	1.96E-03	1.96E-03	2.17E-01	1.14E-01	1.85E-02	3.47E-02	2.37E-03	1.38E-03	1.96E-03	1.96E-03	4.07E-03	1.96E-03	1.96E-03	1.96E-03
859	372541	3796103	Commercial	1.01E-02	1.96E-01	7.87E-03	4.84E-02	3.91E-03	8.03E-04	4.01E-03	1.96E-03	1.96E-03	1.96E-03	2.17E-01	1.14E-01	1.85E-02	3.47E-02	2.37E-03	1.38E-03	1.96E-03	1.96E-03	4.07E-03	1.96E-03	1.96E-03	1.96E-03
860	372541	3796003	Commercial	1.01E-02	1.96E-01	7.87E-03	4.84E-02	3.91E-03	8.03E-04	4.01E-03	1.96E-03	1.96E-03	1.96E-03	2.17E-01	1.14E-01	1.85E-02	3.47E-02	2.37E-03	1.38E-03	1.96E-03	1.96E-03	4.07E-03	1.96E-03	1.96E-03	1.96E-03
861	372741	3797903	Commercial	-2.98E-02	-1.96E-01	-2.28E-02	-1.44E-01	-1.08E-02	-2.01E-03	-1.00E-02	-1.96E-03	-1.96E-03	-1.96E-03	-2.16E-01	-1.34E-01	-4.13E-02	-2.85E-01	-1.08E-02	-1.96E-03	-1.96E-03	-1.96E-03	-1.08E-02	-1.96E-03	-1.96E-03	-1.96E-03
862	372841	3797903	Commercial	-2.44E-02	-1.96E-01	-2.13E-02	-1.13E-01	-1.02E-02	-2.06E-03	-1.02E-02	-1.96E-03	-1.96E-03	-1.96E-03	-1.96E-01	-1.11E-01	-4.14E-02	-4.68E-02	-1.02E-02	-1.96E-03	-1.96E-03	-1.96E-03	-1.08E-02	-1.96E-03	-1.96E-03	-1.96E-03
863	372941	3797903	Commercial	-1.92E-02	-1.96E-01	-1.84E-02	-1.04E-01	-9.42E-03	-1.96E-03	-9.42E-03	-1.96E-03	-1.96E-03	-1.96E-03	-1.84E-01	-1.04E-01	-3.98E-02	-3.13E-02	-9.42E-03	-1.96E-03	-1.96E-03	-1.96E-03	-1.02E-02	-1.96E-03	-1.96E-03	-1.96E-03
864	372541	3797803	Commercial	-2.98E-02	-1.96E-01	-2.28E-02	-1.44E-01	-1.08E-02	-2.01E-03	-1.00E-02	-1.96E-03	-1.96E-03	-1.96E-03	-2.16E-01	-1.34E-01	-4.13E-02	-2.85E-01	-1.08E-02	-1.96E-03	-1.96E-03	-1.96E-03	-1.08E-02	-1.96E-03	-1.96E-03	-1.96E-03
865	372541	3797703	Commercial	-2.44E-02	-1.96E-01	-2.13E-02	-1.13E-01	-1.02E-02	-2.06E-03	-1.02E-02	-1.96E-03	-1.96E-03	-1.96E-03	-1.96E-01	-1.11E-01	-4.14E-02	-4.68E-02	-1.02E-02	-1.96E-03	-1.96E-03	-1.96E-03	-1.08E-02	-1.96E-03	-1.96E-03	-1.96E-03
866	372308	3798805	Commercial	-4.36E-02	-2.95E-01	-3.90E-02	-2.44E-01	-1.92E-02	-3.94E-03	-1.92E-02	-3.85E-03	-1.92E-02	-1.92E-02	-4.85E-01	-7.43E-01	-6.39E-02	-1.92E-01	-1.74E-02	-3.85E-03	-3.85E-03	-3.85E-03	-1.92E-02	-3.85E-03	-3.85E-03	-3.85E-03
867	372408	3798805	Commercial	-4.36E-02	-2.95E-01	-3.90E-02	-2.44E-01	-1.92E-02	-3.94E-03	-1.92E-02	-3.85E-03	-1.92E-02	-1.92E-02	-4.85E-01	-7.43E-01	-6.39E-02	-1.92E-01	-1.74E-02	-3.85E-03	-3.85E-03	-3.85E-03	-1.92E-02	-3.85E-03	-3.85E-03	-3.85E-03
868	372500	3793900	Commercial	1.89E-03	8.85E-04	1.44E-02	1.05E-02	7.68E-04	1.57E-04	7.68E-04	1.96E-03	1.96E-03	1.96E-03	8.17E-01	3.98E-01	3.32E-02	3.62E-03	7.00E-03	1.27E-04	1.96E-03	1.96E-03	7.12E-04	1.96E-03	1.96E-03	1.96E-03
869	372541	3797803	Commercial	1.89E-03	8.85E-04	1.44E-02	1.05E-02	7.68E-04	1.57E-04	7.68E-04	1.96E-03	1.96E-03	1.96E-03	8.17E-01	3.98E-01	3.32E-02	3.62E-03	7.00E-03	1.27E-04	1.96E-03	1.96E-03	7.12E-04	1.96E-03	1.96E-03	1.96E-03
870	372541	3797703	Commercial	3.38E-03	1.58E-03	3.03E-02	2.17E-02	1.62E-03	3.32E-04	1.62E-03	1.96E-03	1.96E-03	1.96E-03	1.72E-01	8.38E-02	7.00E-03	7.62E-03	1.47E-02	1.96E-03	1.96E-03	1.96E-03	1.50E-03	1.96E-03	1.96E-03	1.96E-03
871	372541	3797603	Commercial	3.38E-03	1.58E-03	3.03E-02	2.17E-02	1.62E-03	3.32E-04	1.62E-03	1.96E-03	1.96E-03	1.96E-03	1.72E-01	8.38E-02	7.00E-03	7.62E-03	1.47E-02	1.96E-03	1.96E-03	1.96E-03	1.50E-03	1.96E-03	1.96E-03	1.96E-03
872	372541	3797503	Commercial	3.38E-03	1.58E-03	3.03E-02	2.17E-02	1.62E-03	3.32E-04	1.62E-03	1.96E-03	1.96E-03	1.96E-03	1.72E-01	8.38E-02	7.00E-03	7.62E-03	1.47E-02	1.96E-03	1.96E-03	1.96E-03	1.50E-03	1.96E-03	1.96E-03	1.96E-03
873	372541	3797403	Commercial	3.38E-03	1.58E-03	3.03E-02	2.17E-02	1.62E-03	3.32E-04	1.62E-03	1.96E-03	1.96E-03	1.96E-03	1.72E-01	8.38E-02	7.00E-03	7.62E-03	1.47E-02	1.96E-03	1.96E-03	1.96E-03	1.50E-03	1.96E-03	1.96E-03	1.96E-03
874	372541	3797303	Commercial	3.38E-03	1.58E-03	3.03E-02	2.17E-02	1.62E-03	3.32E-04	1.62E-03	1.96E-03	1.96E-03	1.96E-03	1.72E-01	8.38E-02	7.00E-03	7.62E-03	1.47E-02	1.96E-03	1.96E-03	1.96E-03	1.50E-03	1.96E-03	1.96E-03	1.96E-03
875	372541	3797203	Commercial	3.38E-03	1.58E-03	3.03E-02	2.17E-02	1.62E-03	3.32E-04	1.62E-03	1.96E-03	1.96E-03	1.96E-03	1.72E-01	8.38E-02	7.00E-03	7.62E-03	1.47E-02	1.96E-03	1.96E-03	1.96E-03	1.50E-03	1.96E-03	1.96E-03	1.96E-03
876	372541	3797103	Commercial	3.38E-03	1.58E-03	3.03E-02	2.17E-02	1.62E-03	3.32E-04	1.62E-03	1.96E-03	1.96E-03	1.96E-03	1.72E-01	8.38E-02	7.00E-03	7.62E-03	1.47E-02	1.96E-03	1.96E-03	1.96E-03	1.50E-03	1.96E-03	1.96E-03	1.96E-03
877	372541	3797003	Commercial	3.38E-03	1.58E-03	3.03E-02	2.17E-02	1.62E-03	3.32E-04	1.62E-03	1.96E-03	1.96E-03	1.96E-03	1.72E-01	8.38E-02	7.00E-03	7.62E-03	1.47E-02	1.96E-03	1.96E-03	1.96E-03	1.50E-03	1.96E-03	1.96E-03	1.96E-03
878	372441	3797403	Commercial	4.41E-02	2.95E-01	3.90E-02	2.44E-01	1.92E-02	3.94E-03	1.92E-02	3.85E-03	1.92E-02	1.92E-02	4.84E-01	7.47E-01	6.39E-02	1.92E-01	1.74E-02	3.85E-03	3.85E-03	3.85E-03	1.92E-02	3.85E-03	3.85E-03	3.85E-03
879	372141	3797803	Commercial	5.48E-02	3.93E-01	5.20E-02	3.25E-01	2.56E-02	5.26E-03	2.56E-02	5.13E-03	2.56E-02	2.56E-02	6.46E-01	9.96E-01	8.52E-02	2.56E-01	2.32E-02	5.13E-03	5.13E-03	5.13E-03	2.56E-02	5.13E-03	5.13E-03	5.13E-03
880	372141	3797703	Commercial	3.51E-02	2.51E-01	3.33E-02	2.08E-01	1.64E-02	3.37E-03	1.64E-02	3.29E-03	1.64E-02	1.64E-02	4.14E-01	6.38E-01	5.46E-02	1.64E-01	1.49E-02	3.29E-03	3.29E-03	3.29E-03	1.64E-02	3.29E-03	3.29E-03	3.29E-03
881	372141	3797603	Commercial	3.51E-02	2.51E-01	3.33E-02	2.08E-01	1.64E-02	3.37E-03	1.64E-02	3.29E-03	1.64E-02	1.64E-02	4.14E-01	6.38E-01	5.46E-02	1.64E-01	1.49E-02	3.29E-03	3.29E-03	3.29E-03	1.64E-02	3.29E-03	3.29E-03	3.29E-03
882	372141	3797503	Commercial	3.51E-02	2.51E-01	3.33E-02	2.08E-01	1.64E-02	3.37E-03	1.64E-02	3.29E-03	1.64E-02	1.64E-02	4.14E-01	6.38E-01	5.46E-02	1.64E-01	1.49E-02	3.29E-03	3.29E-03	3.29E-03	1.64E-02	3.29E-03	3.29E-03	3.29E-03
883	372141	3797403	Commercial	3.51E-02	2.51E-01	3.33E-02	2.08E-01	1.64E-02	3.37E-03	1.64E-02	3.29E-03	1.64E-02	1.64E-02	4.14E-01	6.38E-01	5.46E-02	1.64E-01	1.49E-02	3.29E-03	3.29E-03	3.29E-03	1.64E-02	3.29E-03	3.29E-03	3.29E-03
884	372141	3797303	Commercial	3.51E-02	2.51E-01	3.33E-02	2.08E-01	1.64E-02	3.37E-03	1.64E-02	3.29E-03	1.64E-02	1.64E-02	4.14E-01	6.38E-01	5.46E-02	1.64E-01	1.49E-02	3.29E-03	3.29E-03	3.29E-03	1.64E-02	3.29E-03	3.29E-03	3.29E-03
885	372141	3797203	Commercial	3.51E-02	2.51E-01	3.33E-02	2.08E-01	1.64E-02	3.37E-03	1.64E-02	3.29E-03	1.64E-02	1.64E-02	4.14E-01	6.38E-01	5.46E-02	1.64E-01	1.49E-02	3.29E-03	3.29E-03	3.29E-03	1.64E-02	3.29E-03	3.29E-03	3.29E-03
886	372141	3797103	Commercial	3.51E-02	2.51E-01	3.33E-02	2.08E-01	1.64E-02	3.37E-03	1.64E-02	3.29E-03	1.64E-02	1.64E-02	4.14E-01	6.38E-01	5.46E-02	1.64E-01	1.49E-02	3.29E-03	3.29E-03	3.29E-03	1.64E-02	3.29E-03	3.29E-03	3.29E-03
887	372141	3797003	Commercial	3.51E-02	2.51E-01	3.33E-02	2.08E-01	1.64E-02	3.37E-03	1.64E-02	3.29E-03	1.64E-02	1.64E-02	4.14E-01	6.38E-01	5.46E-02	1.64E-01	1.49E-02	3.29E-03	3.29E-03	3.29E-03	1.64E-02	3.29E-03	3.29E-03	3.29E-03
888	372239	3796469	Commercial	6.22E-03	2.66E-03	6.42E-02	4.58E-02	3.46E-03	7.03E-04	3.46E-03	1.96E-03	1.96E-03	1.96E-03	3.58E-01	2.39E-01	1.43E-02	1.60E-02	3.09E-02	1.96E-03	1.96E-03	1.96E-03	3.15E-03	1.96E-03	1.96E-03	1.96E-03
889	372241	3796469	Commercial	6.22E-03	2.66E-03	6.42E-02	4.58E-02	3.46E-03	7.03E-04	3.46E-03	1.96E-03	1.96E-03	1.96E-03	3.58E-01	2.39E-01	1.43E-02	1.60E-02	3.09E-02	1.96E-03	1.96E-03	1.96E-03	3.15E-03	1.96E-03	1.96E-03	1.96E-03
890	372341	3796469	Commercial	3.26E-02	1.39E-02	2.83E-01	2.02E-01	1.52E-02	3.10E-03	1.52E-02	1.96E-03	1.96E-03	1.96E-03	1.58E-00	1.47E-00	6.31E-02	7.05E-02	1.36E-01	1.96E-03	1.96E-03	1.96E-03	1.39E-02	1.96E-03	1.96E-03	1.96E-03
891	372441	3797403	Commercial	4.41E-02	2.95E-01	3.90E-02	2.44E-01	1.92E-02	3.94E-03	1.92E-02	3.85E-03	1.92E-02	1.92E-02	4.84E-01	7.47E-01	6.39E-02	1.92E-01	1.74E-02	3.85E-03	3.85E-03	3.85E-03	1.92E-02	3.85E-03	3.85E-03	3.85E-03
892	372441	3797303	Commercial	5.48E-02	3.93E-01	5.20E-02	3.25E-01	2.56E-02	5.26E-03	2.56E-02	5.13E-03	2.56E-02	2.56E-02	6.46E-01	9.96E-01	8.52E-02	2.56E-01	2.32E-02	5.13E-03	5.13E-03	5.13E-03	2.56E-02	5.13E-03	5.13E-03	5.13E-03
893	372441	3797203	Commercial	5.48E-02	3.93E-01	5.20E-02	3.25E-01	2.56E-02	5.26E-03	2.56E-02	5.13E-03	2.56E-02	2.56E-02	6.46E-01	9.96E-01	8.52E-02	2.56E-01	2.32E-02	5.13E-03	5.13E-03	5.13E-03	2.56E-02	5.13E-03	5.13E-03	5.13E-03
894	372441	3797103	Commercial	5.48E-02	3.93E-01	5.20E-02	3.25E-01	2.56E-02	5.26E-03	2.56E-02	5.13E-03	2.56E-02	2.56E-02	6.46E-01	9.96E-01	8.52E-02	2.56E-01	2.32E-02	5.13E-03	5.13E-03	5.13E-03	2.56E-02	5.13E-03	5.13E-03	5.13E-03
895	372441	3797003	Commercial	5.48E-02	3.93E-01	5.20E-02	3.25E-01	2.56E-02	5.26E-03	2.56E-02	5.13E-03	2.56E-02	2.56E-02	6.46E-01	9.96E-01	8.52E-02	2.56E-01	2.32E-02	5.13E-03	5.13E-03	5.13E-03	2.56E-02	5.13E-03	5.13E-03	5.13E-03
896	372541	3796903	Commercial	5.48E-02	3.93E-01	5.20E-02	3.25E-01	2.56E-02	5.26E-03	2.56E-02	5.13E-03	2.56E-02	2.56E-02	6.46E-01	9.96E-01	8.52E-02	2.56E-01	2.32E-02	5.13E-03	5.13E-03	5.13E-03	2.56E-02	5.13E-03	5.13E-03	5.13E-03
897	372600	3793900	Commercial	1.69E-03	7.94E-04	1.47E-02	1.07E-02	7.04E-04	1.41E-04	7.04E-04	1.96E-03	1.96E-03	1.96E-03	7.34E-01	3.57E-01	3.40E-02	3.24E-03	6.28E-03	1.96E-03	1.96E-03	1.96E-03	6.39E-04	1.96E-03	1.96E-03	1.96E-03
898	372600	3793800	Commercial	1.69E-03	7.94E-04	1.47E-02	1.07E-02	7.04E-04	1.41E-04	7.04E-04	1.96E-03	1.96E-03	1.96E-03	7.34E-01	3.57E-01	3.40E-02	3.24E-03	6.28E-03	1.96E-03	1.96E-03	1.96E-03	6.39E-04	1.96E-03	1.96E-03	1.96E-03
899	372600	3793700	Commercial	1.69E-03	7.94E-04	1.47E-02	1.07E-02	7.04E-04	1.41E-04	7.04E-04	1.96E-03	1.96E-03	1.96E-03	7.34E-01	3.57E-01	3.40E-02	3.24E-03	6.28E-03	1.96E-03	1.96E-03	1.96E-03	6.39E-04	1.96E-03	1.96E-03	1.96E-03
900	372600	3793600	Commercial	1.69E-03	7.94E-04	1.47E-02	1.07E-02	7.04E-04	1.41E-04	7.04E-04	1.96E-03	1.96E-03	1.96E-03	7.34E-01	3.57E-01	3.40E-02	3.24E-03	6.28E-03	1.96E-03	1.96E-03	1.96E-03	6.39E-04	1.96E-03	1.96E-03	1.96E-03
901	372600	3793500	Commercial	1.69E-03	7.94E-04	1.47E-02	1.07E-02	7.04E-04	1.41E-04	7.04E-04	1.96E-03	1.96E-03	1.96E-03	7.34E-01	3.57E-01	3.40E-02	3.24E-03	6.28E-03	1.96E-03	1.96E-03	1.96E-03	6.39E-04	1.96E-03	1.96E-03	1.96E-03
902	372600	3793400	Commercial	1.69E-03	7.94E-04	1.47E-02	1.07E-02	7.04E-04	1.41E-04	7.04E-04	1.96E-03	1.96E-03	1.96E-03	7.34E-01	3.57E-01	3.40E-02	3.24E-03	6.28E-03	1.96E-03	1.96E-03	1.96E-03	6.39E-04	1.96E-03	1.96E-03	1.96E-03
903	372600	3793300	Commercial	1.69E-03	7.94E-04	1.47E-02	1.07E-02	7.04E-04	1.41E-04	7.04E-04	1.96E-03	1.96E-03	1.96E-03	7.34E-01	3.57E-01	3.40E-02	3.24E-03	6.28E-03	1.96E-03	1.96E-03	1.96E-03	6.39E-04	1.96E-03	1.96E-03	1.96E-03
904	372600	3793200	Commercial	1.69E-03	7.94E-04	1.47E-02	1.07E-02	7.04E-04	1.41E-04	7.04E-04	1.96E-03	1.96E-03	1.96E-03	7.34E-01	3.57E-01	3.40E-02	3.24E-03	6.28E-03	1.96E-03	1.96E-03	1.96E-03	6.39E-04	1.96E-03	1.96E-03	1.96E-03
905	372600	3793100	Commercial	1.69E-03	7.94E-04	1.47E-02	1.07E-02	7.04E-04	1.41E-04	7.04E-04	1.96E-03	1.96E-03	1.96E-03	7.34E-01	3.57E-01	3.40E-02	3.24E-03	6.28E-03	1.96E-03	1.96E-03	1.96E-03	6.39E-04	1.96E-03	1.96E-03	1.96E-03
906	372600	3793000	Commercial	1.69E-03	7.94E-04	1.47E-02	1.07E-02	7.04E-04	1.41E-04	7.04E-04	1.96E-03	1.96E-03	1.96E-03	7.34E-01	3.57E-01	3.40E-02	3.24E-03	6.28E-03	1.96E-03	1.96E-03	1.96E-03	6.39E-04	1.96E-03	1.96E-03	1.96E-03
907	372600	3792900	Commercial	1.69E-03	7.94E-04	1.47E-02	1.07E-02	7.04E-04	1.41E-04	7.04E-04	1.96E-03	1.96E-03	1.96E-03	7.34E-01	3.57E-01	3.40E-02	3.24E-03	6.28E-03	1.96E-03	1.96E-03	1.96E-03	6.39E-04	1.96E-03	1.96E-03	1.96E-03
908	372600	3792800	Commercial	1.69E-03	7.94E-04	1.47E-02	1.07E-02	7.04E-04	1.41E-04	7.04E-04	1.96E-03	1.96E-03	1.96E-03	7.34E-01	3.57E-01	3.40E-02	3.24E-03	6.28E-03	1.96E-03	1.96E-03	1.96E-03	6.39E-04	1.96E-03	1.96E-03	1.96E-03
909	372600	3792700	Commercial	1.69E-03	7.94E-04	1.47E-02	1.07E-02	7.04E-04	1.41E-04	7.04E-04	1.96E-03	1.96E-03	1.96E-03	7.34E-01	3.57E-01	3.40E-02	3.24E-03	6.28E-03	1.96E-03	1.96E-03	1.96E-03	6.39E-04	1.96E-03	1.96E-03	1.96E-03
910	372600	3792600	Commercial	1.69E-03	7.94E-04	1.47E-02	1.07E-02	7.04E-04	1.41E-04	7.04E-04	1.96E-03	1.96E-03	1.96E-03	7.34E-01	3.57E-01	3.40E-02	3.24E-03	6.28E-03	1.96E-03	1.96E-03	1.96E-03	6.39E-04	1.96E-03	1.96E-03	1.96E-03

Table 2-A.1
Summary of Incremental Acute Hazard Indices for Onsite Workers and Offsite Receptors - LAX Landside Access Modernization Program, 2035 With Project v. 2035 Without Project
Operation TAC Concentrations

| Receptor Number | X | Y | Receptor Type | acetaldehyde (ug/m³) | acrolein (ug/m³

Table 3-1.2
RAGS F Risk Calculation for LAX Landside Access Modernization Program, 2017-2027 Unmitigated Construction and 2024-2086 Operations - Lifetime Exposure - Child Resident
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	Residential Child
Exposure Time	24 (hrs/day)
Exposure Duration	6 (years)
Exposure Frequency	350 (days/year)
Averaging Time (non-carcinogenic	52560 (hrs)
Averaging Time (carcinogenic)	613200 (hrs)

	Concentration at Location w/Maximum Risk (ug/m³)														
	Construction											Operation by Year			
TAC	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2024	2025	2026	2027
1,2,4-trimethylbenzene	3.28E-07	2.85E-05	8.72E-05	1.11E-04	1.45E-04	8.01E-05	7.95E-06	2.62E-06	0.00E+00	0.00E+00	8.20E-08	1.14E-02	1.15E-02	1.15E-02	1.15E-02
1,3-butadiene	1.84E-07	1.60E-05	4.89E-05	6.23E-05	8.13E-05	4.49E-05	4.46E-06	1.47E-06	0.00E+00	0.00E+00	4.60E-08	6.40E-03	6.42E-03	6.45E-03	6.47E-03
2,2,4-trimethylpentane	7.80E-07	6.77E-05	2.07E-04	2.64E-04	3.45E-04	1.91E-04	1.89E-05	6.24E-06	0.00E+00	0.00E+00	1.95E-07	2.71E-02	2.72E-02	2.73E-02	2.74E-02
acetaldehyde	9.60E-08	8.33E-06	2.55E-05	3.25E-05	4.24E-05	2.34E-05	2.33E-06	7.68E-07	0.00E+00	0.00E+00	2.40E-08	3.34E-03	3.35E-03	3.36E-03	3.37E-03
acrolein	4.40E-08	3.82E-06	1.17E-05	1.49E-05	1.94E-05	1.07E-05	1.07E-06	3.52E-07	0.00E+00	0.00E+00	1.10E-08	1.53E-03	1.54E-03	1.54E-03	1.55E-03
benzene	2.9?E-06	1.9?E-04	2.75E-04	3.11E-04	4.55E-04	2.42E-04	2.03E-05	6.69E-06	0.00E+00	0.00E+00	2.09E-07	2.91E-02	2.92E-02	2.93E-02	2.94E-02
cumene	4.0?E-09	3.47E-07	1.06E-06	1.35E-06	1.77E-06	9.77E-07	9.70E-08	3.20E-08	0.00E+00	0.00E+00	1.00E-09	1.39E-04	1.40E-04	1.40E-04	1.41E-04
cyclohexane	2.0?E-07	1.80E-05	5.53E-05	7.04E-05	9.19E-05	5.08E-05	5.04E-06	1.66E-06	0.00E+00	0.00E+00	5.20E-08	7.24E-03	7.26E-03	7.29E-03	7.31E-03
ethylbenzene	5.8?E-07	3.7?E-05	1.48E-04	1.65E-04	1.93E-04	2.14E-04	8.63E-06	1.03E-05	0.00E+00	6.96E-07	7.51E-06	1.24E-02	1.24E-02	1.25E-02	1.25E-02
ethylene	2.?E-06	1.8?E-04	5.73E-04	7.30E-04	9.52E-04	5.27E-04	5.23E-05	1.72E-05	0.00E+00	0.00E+00	5.39E-07	7.50E-02	7.53E-02	7.55E-02	7.58E-02
formaldehyde	5.3?E-07	4.6?E-05	1.42E-04	1.81E-04	2.37E-04	1.31E-04	1.30E-05	4.29E-06	0.00E+00	0.00E+00	1.34E-07	1.86E-02	1.87E-02	1.88E-02	1.88E-02
hexane, n-	5.4?E-07	4.8?E-05	1.48E-04	2.03E-04	1.32E-04	1.31E-05	4.32E-06	0.00E+00	0.00E+00	0.00E+00	1.35E-07	1.88E-02	1.89E-02	1.89E-02	1.90E-02
isoprene, except from vegetative emission sources	4.80E-08	4.16E-06	1.28E-05	1.62E-05	2.12E-05	1.17E-05	1.16E-06	3.84E-07	0.00E+00	0.00E+00	1.20E-08	1.67E-03	1.68E-03	1.68E-03	1.69E-03
methyl alcohol	4.0?E-08	3.47E-06	1.06E-05	1.35E-05	1.77E-05	9.77E-06	9.70E-07	3.20E-07	0.00E+00	0.00E+00	1.00E-08	1.39E-03	1.40E-03	1.40E-03	1.41E-03
methyl ethyl ketone	8.0?E-09	6.9?E-07	2.13E-06	2.71E-06	3.53E-06	1.95E-06	1.94E-07	6.40E-08	0.00E+00	0.00E+00	2.00E-09	2.78E-04	2.79E-04	2.80E-04	2.81E-04
naphthalene	1.6?E-08	1.3?E-06	4.26E-06	5.42E-06	7.07E-06	3.91E-06	3.88E-07	1.28E-07	0.00E+00	0.00E+00	4.00E-09	5.57E-04	5.59E-04	5.61E-04	5.62E-04
propionaldehyde	1.2?E-08	1.0?E-06	3.19E-06	4.06E-06	5.30E-06	2.93E-06	2.91E-07	9.60E-08	0.00E+00	0.00E+00	3.00E-09	4.18E-04	4.19E-04	4.20E-04	4.22E-04
propylene	1.0?E-08	8.9?E-05	2.75E-04	3.51E-04	4.58E-04	2.53E-04	2.51E-05	8.29E-06	0.00E+00	0.00E+00	2.59E-07	3.60E-02	3.62E-02	3.63E-02	3.64E-02
styrene	4.0?E-08	3.4?E-06	1.06E-05	1.35E-05	1.77E-05	9.77E-06	9.70E-07	3.20E-07	0.00E+00	0.00E+00	1.00E-08	1.39E-03	1.40E-03	1.40E-03	1.41E-03
toluene	2.9?E-06	1.8?E-04	6.66E-04	7.83E-04	9.61E-04	8.30E-04	4.72E-05	3.62E-05	0.00E+00	1.94E-06	2.11E-05	6.78E-02	6.80E-02	6.82E-02	6.85E-02
xylene (total)	2.0?E-06	1.5?E-04	5.18E-04	6.23E-04	7.77E-04	6.02E-04	3.95E-05	2.50E-05	0.00E+00	1.12E-06	1.23E-05	5.66E-02	5.68E-02	5.70E-02	5.72E-02
aluminum	1.3?E-04	1.1?E-03	4.90E-03	6.68E-03	7.39E-03	7.05E-03	4.60E-04	2.21E-04	1.01E-04	9.49E-06	1.02E-04	7.09E-04	9.79E-04	1.25E-03	1.52E-03
ammonium ion	2.2?E-07	3.3?E-06	9.46E-06	1.27E-05	1.46E-05	1.30E-05	9.06E-07	4.19E-07	1.68E-07	1.61E-08	1.72E-07	1.93E-05	2.67E-05	3.41E-05	4.27E-05
antimony	2.6?E-08	3.8?E-07	9.79E-07	1.34E-06	1.48E-06	1.41E-06	9.20E-08	4.41E-08	2.01E-08	1.90E-09	2.03E-08	4.51E-07	6.23E-07	7.94E-07	9.66E-07
arsenic	3.3?E-08	4.9?E-07	1.39E-06	1.89E-06	2.15E-06	1.95E-06	1.35E-07	6.24E-08	2.55E-08	2.50E-09	2.61E-08	1.15E-07	1.58E-07	2.02E-07	2.45E-07
barium	3.3?E-06	2.3?E-04	1.48E-04	1.65E-04	1.93E-04	2.14E-04	8.63E-06	1.03E-05	0.00E+00	6.96E-07	7.51E-06	1.24E-02	1.24E-02	1.25E-02	1.25E-02
bromine	5.0?E-08	9.4?E-07	2.89E-06	3.82E-06	4.71E-06	3.65E-06	3.12E-07	1.31E-07	3.75E-08	3.90E-09	3.92E-08	3.02E-07	2.45E-07	1.88E-07	1.31E-07
cadmium	5.4?E-08	7.3?E-07	2.01E-06	2.74E-06	3.03E-06	2.89E-06	1.89E-07	9.05E-08	4.13E-08	3.95E-09	4.17E-08	1.99E-06	2.75E-06	3.50E-06	4.26E-06
chlorine	6.0?E-06	1.1?E-04	3.32E-04	4.38E-04	5.35E-04	4.21E-04	3.54E-05	1.50E-05	4.52E-06	4.40E-07	4.69E-06	2.64E-05	1.25E-05	-1.36E-06	-1.52E-05
chromium (VI)	2.0?E-08	4.9?E-07	1.65E-06	2.15E-06	2.78E-06	1.98E-06	1.81E-07	7.18E-08	1.45E-08	1.91E-09	1.64E-08	1.84E-07	2.43E-07	3.01E-07	3.60E-07
cobalt	1.8?E-07	2.6?E-06	7.34E-06	9.97E-06	1.12E-05	1.04E-05	7.11E-07	3.33E-07	1.43E-07	1.35E-08	1.44E-07	2.50E-07	1.79E-07	1.01E-07	2.68E-08
copper	6.9?E-07	4.8?E-05	1.92E-04	2.41E-04	3.43E-04	2.01E-04	2.28E-05	8.12E-06	2.61E-07	1.29E-07	6.12E-07	3.44E-05	4.68E-05	5.91E-05	7.15E-05
lead	9.7?E-07	1.3?E-05	3.76E-05	4.91E-05	5.71E-05	5.35E-05	9.06E-07	4.19E-07	1.68E-07	1.61E-08	1.72E-07	1.93E-05	2.67E-05	3.41E-05	4.27E-05
manganese	1.6?E-06	2.8?E-05	8.70E-05	1.16E-04	1.39E-04	1.14E-04	8.99E-06	3.84E-06	1.24E-06	1.32E-07	1.30E-06	1.04E-05	1.40E-05	1.77E-05	2.14E-05
mercury	2.7?E-08	3.7?E-07	1.03E-06	1.41E-06	1.55E-06	1.48E-06	9.66E-08	4.64E-08	2.12E-08	2.00E-09	2.14E-08	5.97E-08	8.24E-08	1.05E-07	1.28E-07
nickel	1.3?E-07	4.1?E-06	1.50E-05	1.92E-05	2.59E-05	1.70E-05	1.70E-06	6.47E-07	8.72E-08	1.42E-08	1.08E-07	2.11E-06	2.71E-06	3.31E-06	3.90E-06
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
non-phosphorus phosphorous	2.7?E-06	3.8?E-05	1.08E-04	1.46E-04	1.63E-04	1.52E-04	1.02E-05	4.80E-06	2.10E-06	1.98E-07	2.13E-06	1.88E-05	2.60E-05	3.32E-05	4.03E-05
selenium	5.1?E-09	1.5?E-07	5.61E-07	7.18E-07	9.58E-07	6.37E-07	6.17E-08	2.38E-08	3.38E-09	5.00E-10	4.21E-09	8.32E-08	1.14E-07	1.44E-07	1.75E-07
silicon	3.4?E-04	4.8?E-03	1.36E-02	1.86E-02	2.09E-02	1.92E-02	1.31E-03	6.12E-04	2.59E-04	2.51E-05	2.64E-04	2.21E-03	3.05E-03	3.89E-03	4.72E-03
silver	1.3?E-08	1.8?E-07	5.15E-07	7.03E-07	7.77E-07	7.42E-07	4.84E-08	2.32E-08	1.06E-08	1.00E-09	1.07E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00
sulfates	9.6?E-06	3.4?E-04	1.20E-03	1.52E-03	2.09E-03	1.30E-03	1.47E-04	5.45E-05	6.58E-06	9.24E-07	7.67E-06	2.03E-04	1.26E-04	4.94E-05	-2.78E-05
thallium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.65E-08	3.66E-08	4.67E-08	5.68E-08
vanadium	4.8?E-07	8.8?E-06	2.75E-05	3.64E-05	4.46E-05	3.54E-05	2.86E-06	1.21E-06	3.57E-07	3.97E-08	3.81E-07	2.37E-06	3.24E-06	4.11E-06	4.98E-06
zinc	9.8?E-07	1.9?E-05	6.25E-05	8.16E-05	1.01E-04	7.69E-05	6.23E-06	2.64E-06	7.07E-07	6.91E-08	7.74E-07	1.08E-05	1.46E-05	1.85E-05	2.23E-05
Diesel PM	6.90E-04	1.5?E-02	6.97E-02	8.95E-02	9.06E-02	5.56E-02	2.51E-03	8.50E-04	1.20E-04	2.00E-05	1.20E-04	8.21E-06	2.05E-05	3.28E-05	4.51E-05

[1] Residential Maximum Grid No. 493
NA = Not Available
NC = Not Calculated
Source: CDM Smith, 2017

ug/m³ = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Table 3-1.1
RAGS F Risk Calculation for LAX Landside Access Modernization Program, 2017-2027 Unmitigated Construction and 2024-2086 Operations - Lifetime Exposure - Adult Resident
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	Residential Adult
Exposure Time	24 (hr/day)
Exposure Duration	70 (years)
Exposure Frequency	350 (days/year)
Averaging Time (non-carcinogenic)	613200 (hrs)
Averaging Time (carcinogenic)	613200 (hrs)

	Concentration at Location w/Maximum Risk (ug/m³)																								
	Construction											Operation by Year													
TAC	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
1,2,4-trimethylbenzene	3.28E-07	3.85E-05	8.72E-05	9.07E-05	1.35E-04	7.64E-05	9.68E-06	3.77E-06	0.00E+00	0.00E+00	8.20E-08	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.27E-02	1.27E-02	1.27E-02	1.27E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02
1,3-butadiene	1.84E-07	2.16E-05	4.89E-05	5.09E-05	7.59E-05	4.28E-05	5.43E-06	2.12E-06	0.00E+00	0.00E+00	4.60E-08	7.05E-03	7.07E-03	7.08E-03	7.09E-03	7.11E-03	7.12E-03	7.14E-03	7.15E-03	7.16E-03	7.18E-03	7.19E-03	7.21E-03	7.21E-03
2,2,4-trimethylpentane	7.80E-07	9.17E-05	2.07E-04	2.16E-04	3.22E-04	1.82E-04	2.30E-05	8.97E-06	0.00E+00	0.00E+00	1.95E-07	2.99E-02	3.00E-02	3.00E-02	3.01E-02	3.01E-02	3.02E-02	3.03E-02	3.03E-02	3.04E-02	3.04E-02	3.04E-02	3.05E-02	3.05E-02
acetaldehyde	9.60E-08	1.13E-05	2.55E-05	2.65E-05	3.96E-05	2.24E-05	2.83E-06	1.10E-06	0.00E+00	0.00E+00	2.40E-08	3.68E-03	3.69E-03	3.69E-03	3.70E-03	3.71E-03	3.72E-03	3.72E-03	3.73E-03	3.74E-03	3.74E-03	3.75E-03	3.76E-03	3.76E-03
acrolein	4.40E-08	5.17E-06	1.17E-05	1.22E-05	1.82E-05	1.03E-05	1.30E-06	5.06E-07	0.00E+00	0.00E+00	1.10E-08	1.69E-03	1.69E-03	1.69E-03	1.70E-03	1.70E-03	1.70E-03	1.71E-03	1.71E-03	1.71E-03	1.72E-03	1.72E-03	1.72E-03	1.72E-03
benzene	3.0?E-06	2.2?E-04	3.08E-04	2.74E-04	4.27E-04	2.39E-04	2.47E-05	9.61E-06	0.00E+00	0.00E+00	2.09E-07	3.20E-02	3.21E-02	3.22E-02	3.23E-02	3.24E-02	3.24E-02	3.25E-02	3.26E-02	3.26E-02	3.27E-02	3.27E-02	3.27E-02	3.27E-02
cumene	4.0?E-09	4.7?E-07	1.06E-06	1.11E-06	1.65E-06	9.32E-07	1.18E-07	4.60E-08	0.00E+00	0.00E+00	1.00E-09	1.53E-04	1.54E-04	1.54E-04	1.55E-04	1.55E-04	1.56E-04	1.55E-04	1.56E-04	1.56E-04	1.56E-04	1.56E-04	1.56E-04	1.57E-04
cyclohexane	2.0?E-07	2.4?E-05	5.53E-05	5.75E-05	8.59E-05	4.85E-05	6.14E-06	2.39E-06	0.00E+00	0.00E+00	5.20E-08	7.97E-03	7.99E-03	8.00E-03	8.02E-03	8.04E-03	8.05E-03	8.07E-03	8.08E-03	8.10E-03	8.11E-03	8.13E-03	8.15E-03	8.15E-03
ethylbenzene	5.8?E-07	5.0?E-05	1.34E-04	1.45E-04	3.78E-04	2.01E-04	1.05E-05	1.43E-05	0.00E+00	6.96E-07	7.98E-06	1.36E-02	1.37E-02	1.37E-02	1.37E-02	1.38E-02	1.38E-02	1.38E-02	1.38E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02
ethylene	2.?E-06	2.3?E-04	5.73E-04	5.99E-04	8.90E-04	5.02E-04	6.38E-05	2.48E-05	0.00E+00	0.00E+00	5.39E-07	8.28E-02	8.28E-02	8.30E-02	8.31E-02	8.33E-02	8.35E-02	8.36E-02	8.38E-02	8.39E-02	8.41E-02	8.42E-02	8.44E-02	8.44E-02
formaldehyde	5.3?E-07	6.3?E-05	1.42E-04	1.48E-04	2.21E-04	1.25E-04	1.58E-05	6.16E-06	0.00E+00	0.00E+00	1.34E-07	2.05E-02	2.07E-02	2.07E-02	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02	2.09E-02	2.10E-02	2.10E-02
hexane, n-	5.4?E-07	6.3?E-05	1.44E-04	1.49E-04	2.23E-04	1.26E-04	1.59E-05	6.21E-06	0.00E+00	0.00E+00	1.35E-07	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02	2.09E-02	2.10E-02	2.10E-02	2.11E-02	2.11E-02	2.11E-02	2.11E-02
isoprene, except from vegetative emission sources	4.80E-08	5.64E-06	1.28E-05	1.33E-05	1.98E-05	1.12E-05	1.42E-06	5.52E-07	0.00E+00	0.00E+00	1.20E-08	1.84E-03	1.84E-03	1.85E-03	1.85E-03	1.85E-03	1.86E-03	1.86E-03	1.87E-03	1.87E-03	1.87E-03	1.88E-03	1.88E-03	1.88E-03
methyl alcohol	4.0?E-08	4.7?E-06	1.06E-05	1.11E-05	1.65E-05	9.32E-06	1.18E-06	4.60E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.57E-03
methyl ethyl ketone	8.0?E-09	9.4?E-07	2.13E-06	2.21E-06	3.30E-06	1.86E-06	2.36E-07	9.20E-08	0.00E+00	0.00E+00	2.00E-09	3.07E-04	3.07E-04	3.08E-04	3.08E-04	3.09E-04	3.10E-04	3.10E-04	3.11E-04	3.11E-04	3.12E-04	3.13E-04	3.13E-04	3.13E-04
naphthalene	1.6?E-08	1.8?E-06	4.26E-06	4.42E-06	6.60E-06	3.73E-06	4.72E-07	1.84E-07	0.00E+00	0.00E+00	4.00E-09	6.13E-04	6.14E-04	6.16E-04	6.17E-04	6.18E-04	6.19E-04	6.21E-04	6.22E-04	6.23E-04	6.24E-04	6.25E-04	6.27E-04	6.27E-04
propionaldehyde	1.2?E-08	1.4?E-06	3.19E-06	3.32E-06	4.95E-06	2.80E-06	3.54E-07	1.38E-07	0.00E+00	0.00E+00	3.00E-09	4.60E-04	4.61E-04	4.62E-04	4.63E-04	4.64E-04	4.65E-04	4.66E-04	4.67E-04	4.68E-04	4.69E-04	4.70E-04	4.70E-04	4.70E-04
propylene	1.0?E-08	1.2?E-04	2.76E-04	2.86E-04	4.28E-04	2.41E-04	3.06E-05	1.19E-05	0.00E+00	0.00E+00	2.59E-07	3.97E-02	3.98E-02	3.99E-02	3.99E-02	4.00E-02	4.01E-02	4.02E-02	4.03E-02	4.03E-02	4.04E-02	4.05E-02	4.06E-02	4.06E-02
styrene	4.0?E-08	4.7?E-06	1.06E-05	1.11E-05	1.65E-05	9.32E-06	1.18E-06	4.60E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.57E-03
toluene	2.9?E-06	2.5?E-04	6.28E-04	6.68E-04	1.45E-03	7.83E-04	5.75E-05	5.08E-05	0.00E+00	1.94E-06	2.24E-05	7.47E-02	7.48E-02	7.50E-02	7.51E-02	7.53E-02	7.54E-02	7.55E-02	7.57E-02	7.58E-02	7.60E-02	7.61E-02	7.63E-02	7.63E-02
xylene (total)	2.0?E-06	2.0?E-04	4.96E-04	5.23E-04	1.04E-03	5.70E-04	4.80E-05	3.51E-05	0.00E+00	1.12E-06	1.31E-05	6.24E-02	6.25E-02	6.26E-02	6.28E-02	6.29E-02	6.30E-02	6.31E-02	6.33E-02	6.34E-02	6.35E-02	6.36E-02	6.38E-02	6.38E-02
aluminum	1.3?E-04	2.4?E-03	4.82E-03	5.76E-03	8.46E-03	6.08E-03	5.54E-04	3.13E-04	1.68E-04	1.04E-05	1.09E-04	5.63E-04	2.16E-03	3.75E-03	5.34E-03	6.94E-03	8.53E-03	1.01E-02	1.17E-02	1.33E-02	1.49E-02	1.65E-02	1.81E-02	1.81E-02
ammonium ion	2.0?E-07	4.6?E-06	9.34E-06	1.09E-05	1.61E-05	1.28E-05	1.10E-06	6.04E-07	1.80E-07	1.77E-08	1.85E-07	1.53E-05	5.88E-05	1.02E-04	1.46E-04	1.89E-04	2.33E-04	2.76E-04	3.20E-04	3.63E-04	4.07E-04	4.50E-04	4.94E-04	4.94E-04
antimony	2.4?E-08	4.9?E-07	9.63E-07	1.15E-06	1.36E-06	1.11E-07	6.29E-08	3.17E-08	2.16E-08	2.09E-09	2.19E-08	3.59E-07	1.27E-06	2.36E-06	3.45E-06	4.54E-06	5.63E-06	6.72E-06	7.81E-06	8.90E-06	9.99E-06	1.11E-05	1.22E-05	1.15E-05
arsenic	3.1?E-08	6.8?E-07	1.38E-06	1.61E-06	2.39E-06	1.91E-06	1.84E-07	9.01E-08	2.75E-08	2.74E-09	2.80E-08	9.12E-08	3.47E-07	6.03E-07	8.59E-07	1.12E-06	1.37E-06	1.63E-06	1.88E-06	2.14E-06	2.40E-06	2.65E-06	2.91E-06	2.91E-06
barium	2.8?E-06	3.3?E-04	9.23E-04	9.15E-04	1.90E-03	1.03E-03	6.41E-05	1.63E-05	6.40E-07	3.27E-06	1.30E-04	4.85E-04	8.39E-04	1.19E-03	1.55E-03	1.90E-03	2.26E-03	2.61E-03	2.97E-03	3.32E-03	3.68E-03	4.03E-03	4.03E-03	4.03E-03
bromine	4.6?E-08	1.2?E-06	1.41E-06	3.32E-06	4.95E-06	2.80E-06	3.54E-07	1.38E-07	0.00E+00	0.00E+00	3.00E-09	4.60E-04	4.61E-04	4.62E-04	4.63E-04	4.64E-04	4.65E-04	4.66E-04	4.67E-04	4.68E-04	4.69E-04	4.70E-04	4.70E-04	4.70E-04
cadmium	5.0?E-08	1.0?E-06	1.98E-06	2.36E-06	3.47E-06	2.85E-06	2.27E-07	1.29E-07	4.45E-08	4.28E-09	4.49E-08	1.58E-08	6.05E-08	1.05E-07	1.50E-07	1.95E-07	2.39E-07	2.84E-07	3.29E-07	3.74E-07	4.18E-07	4.63E-07	5.08E-07	5.08E-07
chlorine	5.6?E-06	1.5?E-04	3.31E-04	3.70E-04	6.61E-04	4.06E-04	4.28E-05	2.12E-05	4.85E-06	4.85E-07	5.03E-06	2.12E-05	4.82E-05	7.52E-05	1.02E-04	1.29E-04	1.56E-04	1.83E-04	2.10E-04	2.37E-04	2.64E-04	2.91E-04	3.18E-04	3.18E-04
chromium (VI)	1.8?E-08	6.9?E-07	1.65E-06	1.76E-06	2.76E-06	1.90E-06	2.27E-07	1.09E-07	1.55E-08	2.04E-09	1.75E-08	1.46E-07	5.34E-07	9.22E-07	1.31E-06	1.70E-06	2.09E-06	2.47E-06	2.86E-06	3.23E-06	3.64E-06	4.03E-06	4.41E-06	4.41E-06
cobalt	1.7?E-07	3.8?E-06	7.25E-06	8.58E-06	1.27E-05	1.02E-05	8.57E-07	4.72E-07	1.94E-07	1.84E-08	1.95E-07	2.00E-07	5.38E-07	8.75E-07	1.21E-06	1.55E-06	1.89E-06	2.22E-06	2.56E-06	2.90E-06	3.24E-06	3.57E-06	3.91E-06	3.91E-06
copper	6.2?E-07	7.0?E-05	1.94E-04	1.91E-04	3.14E-04	1.86E-04	2.92E-05	1.23E-05	2.72E-07	1.30E-07	6.23E-07	2.73E-05	1.02E-04	1.76E-04	2.50E-04	3.24E-04	3.98E-04	4.73E-04	5.48E-04	6.22E-04	6.97E-04	7.71E-04	8.45E-04	8.45E-04
lead	9.0?E-07	1.8?E-05	3.70E-05	4.40E-05	6.48E-05	5.28E-05	4.30E-06	2.42E-06	8.00E-07	7.76E-08	8.10E-07	8.46E-07	3.22E-06	5.60E-06	7.97E-06	1.03E-05	1.27E-05	1.51E-05	1.75E-05	1.99E-05	2.23E-05	2.46E-05	2.70E-05	
manganese	1.5?E-06	4.0?E-05	8.64E-05	1.03E-04	1.57E-04	1.44E-04	1.14E-05	5.68E-06	2.27E-06	2.37E-07	2.34E-06	3.09E-05	1.22E-04	2.11E-04	3.00E-04	3.89E-04	4.78E-04	5.67E-04	6.56E-04	7.45E-04	8.34E-04	9.23E-04	1.01E-03	1.01E-03
mercury	2.5?E-08	5.2?E-07	1.01E-06	1.21E-06	1.76E-06	1.46E-06	1.17E-07	6.62E-08	2.28E-08	2.20E-09	2.30E-08	4.74E-08	1.82E-07	3.16E-07	4.50E-07	5.84E-07	7.18E-07	8.52E-07	9.87E-07	1.12E-06	1.26E-06	1.39E-06	1.52E-06	
nickel	1.9?E-07	6.0?E-06	1.5?E-05	1.58E-05	2.48E-05	1.62E-05	2.15E-06	9.98E-07	9.32E-08	1.95E-08	1.14E-07	1.87E-06	6.02E-06	1.04E-05	1.47E-05	1.91E-05	2.34E-05	2.78E-05	3.21E-05	3.65E-05	4.09E-05	4.52E-05	4.95E-05	4.95E-05
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+

Table 3-1.4
RAGS F Risk Calculation for LAX Landside Access Modernization Program, 2017-2027 Unmitigated Construction and 2024-2086 Operations - Lifetime Exposure - Off-Airport Worker
(Based on Peak Location of Commercial Cancer Risks[1])

Exposure Parameters	Adult Worker
Exposure Time	8 (hr/day)
Exposure Duration	25 (years)
Exposure Frequency	230 (days/year)
Averaging Time (non-carcinogenic	219000 (hrs)
Averaging Time (carcinogenic)	613200 (hrs)

	Concentration at Location w/Maximum Risk (ug/m³)																								
	Construction									Operation by Year															
TAC	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
1,2,4-trimethylbenzene	4.10E-07	3.47E-05	1.42E-04	2.54E-04	3.92E-04	2.40E-04	9.92E-05	3.28E-06	0.00E+00	0.00E+00	8.20E-08	3.84E-02	2.85E-02	2.68E-02	2.67E-02	2.68E-02	2.69E-02	2.70E-02	2.71E-02	2.72E-02	2.73E-02	2.74E-02	2.74E-02
1,3-butadiene	2.30E-07	1.95E-05	7.96E-05	1.42E-04	2.20E-04	1.35E-04	5.57E-05	1.84E-06	0.00E+00	0.00E+00	4.60E-08	1.48E-02	1.49E-02	1.90E-02	1.50E-02	1.51E-02	1.51E-02	1.52E-02	1.52E-02	1.53E-02	1.53E-02	1.53E-02	1.54E-02
2,2,4-trimethylpentane	9.75E-07	8.25E-05	3.37E-04	6.03E-04	9.33E-04	5.71E-04	2.36E-04	7.80E-06	0.00E+00	0.00E+00	1.95E-07	6.26E-02	6.31E-02	6.33E-02	6.35E-02	6.37E-02	6.40E-02	6.42E-02	6.44E-02	6.46E-02	6.48E-02	6.51E-02	6.53E-02
acetaldehyde	1.20E-07	1.02E-05	4.15E-05	7.42E-05	1.15E-04	7.03E-05	2.90E-05	9.60E-07	0.00E+00	0.00E+00	2.40E-08	7.74E-03	7.76E-03	7.79E-03	7.82E-03	7.84E-03	7.87E-03	7.90E-03	7.93E-03	7.95E-03	7.98E-03	8.01E-03	8.03E-03
acrolein	5.50E-08	4.65E-06	1.90E-05	3.40E-05	5.26E-05	3.22E-05	1.33E-05	4.40E-07	0.00E+00	0.00E+00	1.10E-08	3.56E-03	3.56E-03	3.57E-03	3.58E-03	3.60E-03	3.61E-03	3.62E-03	3.63E-03	3.65E-03	3.66E-03	3.67E-03	3.68E-03
benzene	3.42E-06	2.24E-04	4.33E-04	6.81E-04	1.77E-03	6.88E-04	2.53E-05	8.36E-06	0.00E+00	0.00E+00	2.09E-07	6.74E-02	6.76E-02	6.77E-02	6.81E-02	6.83E-02	6.85E-02	6.88E-02	6.90E-02	6.93E-02	6.95E-02	6.97E-02	7.00E-02
cumene	5.00E-09	4.23E-07	1.73E-06	3.09E-06	4.76E-06	2.93E-06	1.21E-07	4.00E-08	0.00E+00	0.00E+00	1.00E-09	3.22E-04	3.23E-04	3.23E-04	3.26E-04	3.27E-04	3.28E-04	3.29E-04	3.30E-04	3.31E-04	3.32E-04	3.34E-04	3.35E-04
cyclohexane	2.60E-07	2.20E-05	9.00E-05	1.61E-04	2.46E-04	1.52E-04	6.29E-06	2.08E-06	0.00E+00	0.00E+00	5.20E-08	1.68E-02	1.68E-02	1.69E-02	1.70E-02	1.71E-02	1.71E-02	1.72E-02	1.72E-02	1.73E-02	1.73E-02	1.73E-02	1.74E-02
ethylbenzene	6.77E-07	4.88E-05	2.12E-04	3.23E-04	4.93E-04	8.71E-04	1.08E-05	1.31E-05	0.00E+00	0.00E+00	9.28E-07	8.67E-06	2.87E-02	2.88E-02	2.88E-02	2.90E-02	2.91E-02	2.92E-02	2.93E-02	2.94E-02	2.95E-02	2.96E-02	2.97E-02
ethylene	2.70E-06	2.28E-04	9.32E-04	1.67E-03	2.56E-03	1.58E-03	6.52E-05	2.16E-05	0.00E+00	0.00E+00	5.39E-07	1.74E-01	1.74E-01	1.75E-01	1.76E-01	1.76E-01	1.77E-01	1.77E-01	1.78E-01	1.79E-01	1.79E-01	1.80E-01	1.80E-01
formaldehyde	6.70E-07	5.67E-05	2.32E-04	4.14E-04	6.41E-04	3.95E-04	1.62E-05	5.36E-06	0.00E+00	0.00E+00	1.34E-07	4.33E-02	4.33E-02	4.35E-02	4.38E-02	4.39E-02	4.41E-02	4.43E-02	4.44E-02	4.46E-02	4.47E-02	4.48E-02	4.49E-02
hexane, n- isopreme, except from	6.75E-07	5.71E-05	2.34E-04	4.18E-04	6.46E-04	3.99E-04	1.63E-05	5.40E-06	0.00E+00	0.00E+00	1.35E-07	4.36E-02	4.37E-02	4.38E-02	4.40E-02	4.41E-02	4.43E-02	4.46E-02	4.46E-02	4.47E-02	4.49E-02	4.50E-02	4.52E-02
vegetative emission sources	6.00E-08	5.08E-06	2.08E-05	3.71E-05	5.74E-05	3.51E-05	1.45E-06	4.80E-07	0.00E+00	0.00E+00	1.20E-08	3.87E-03	3.88E-03	3.90E-03	3.91E-03	3.92E-03	3.94E-03	3.95E-03	3.96E-03	3.98E-03	3.99E-03	4.00E-03	4.02E-03
methyl alcohol	5.00E-08	4.23E-06	1.73E-05	3.09E-05	4.78E-05	2.93E-05	1.21E-06	4.00E-07	0.00E+00	0.00E+00	1.00E-08	3.22E-03	3.23E-03	3.25E-03	3.26E-03	3.27E-03	3.28E-03	3.29E-03	3.30E-03	3.31E-03	3.32E-03	3.34E-03	3.35E-03
methyl ethyl ketone	1.00E-08	8.46E-07	3.46E-06	6.19E-06	9.57E-06	5.86E-06	2.42E-07	8.00E-08	0.00E+00	0.00E+00	2.00E-09	6.45E-04	6.47E-04	6.49E-04	6.51E-04	6.54E-04	6.56E-04	6.58E-04	6.60E-04	6.63E-04	6.65E-04	6.67E-04	6.69E-04
naphthalene	2.05E-08	1.85E-06	7.52E-06	1.24E-05	1.91E-05	1.17E-05	4.84E-07	1.60E-07	0.00E+00	0.00E+00	4.00E-09	1.29E-03	1.30E-03	1.30E-03	1.30E-03	1.31E-03	1.31E-03	1.32E-03	1.32E-03	1.33E-03	1.33E-03	1.33E-03	1.34E-03
propionaldehyde	1.50E-08	1.27E-06	5.19E-06	9.28E-06	1.44E-05	8.78E-06	3.63E-07	1.20E-07	0.00E+00	0.00E+00	3.00E-09	9.67E-04	9.70E-04	9.74E-04	9.77E-04	9.81E-04	9.84E-04	9.87E-04	9.91E-04	9.94E-04	9.97E-04	1.00E-03	1.00E-03
propylene	1.30E-06	1.10E-04	4.48E-04	8.01E-04	1.24E-03	7.58E-04	3.13E-05	1.04E-05	0.00E+00	0.00E+00	2.59E-07	8.35E-02	8.36E-02	8.41E-02	8.44E-02	8.47E-02	8.49E-02	8.52E-02	8.55E-02	8.58E-02	8.61E-02	8.64E-02	8.67E-02
styrene	5.00E-08	4.23E-06	1.73E-05	3.09E-05	4.76E-05	2.93E-05	1.21E-06	4.00E-07	0.00E+00	0.00E+00	1.00E-08	3.22E-03	3.23E-03	3.25E-03	3.26E-03	3.27E-03	3.28E-03	3.29E-03	3.30E-03	3.31E-03	3.32E-03	3.34E-03	3.35E-03
toluene	3.08E-06	2.26E-04	1.00E-03	1.66E-03	2.52E-03	3.12E-03	5.86E-05	4.99E-05	0.00E+00	0.00E+00	2.58E-06	2.44E-05	1.57E-01	1.58E-01	1.59E-01	1.60E-01	1.60E-01	1.61E-01	1.61E-01	1.62E-01	1.62E-01	1.62E-01	1.63E-01
xylene (total)	2.41E-06	1.85E-04	7.97E-04	1.39E-03	2.06E-03	2.17E-03	4.92E-05	3.16E-05	0.00E+00	0.00E+00	1.48E-06	1.43E-05	1.31E-01	1.32E-01	1.33E-01	1.34E-01	1.34E-01	1.34E-01	1.35E-01	1.35E-01	1.35E-01	1.36E-01	1.36E-01
aluminum	1.46E-04	2.32E-03	7.62E-03	1.51E-02	2.07E-02	2.78E-02	5.49E-04	2.76E-04	1.16E-04	1.14E-05	1.18E-04	8.89E-04	2.22E-03	3.58E-03	4.94E-03	6.30E-03	7.66E-03	9.03E-03	1.04E-02	1.17E-02	1.31E-02	1.45E-02	1.58E-02
ammonium ion	2.44E-07	4.36E-06	1.46E-05	2.87E-05	4.05E-05	5.04E-05	1.06E-06	5.21E-07	1.99E-07	2.12E-08	2.01E-07	2.33E-05	6.03E-05	9.79E-05	1.35E-04	1.72E-04	2.09E-04	2.46E-04	2.83E-04	3.20E-04	3.58E-04	3.95E-04	4.32E-04
antimony	2.93E-08	4.65E-07	1.52E-06	3.03E-06	4.13E-06	5.59E-06	1.10E-07	5.51E-08	2.32E-08	2.28E-09	2.36E-08	5.44E-07	1.41E-06	2.28E-06	3.14E-06	4.01E-06	4.87E-06	5.74E-06	6.61E-06	7.47E-06	8.34E-06	9.21E-06	1.01E-05
arsenic	3.74E-08	8.35E-07	2.18E-06	4.23E-06	5.90E-06	7.54E-06	1.62E-07	7.79E-08	2.95E-09	3.03E-09	1.36E-07	3.57E-07	5.78E-07	7.95E-07	1.01E-06	1.22E-06	1.44E-06	1.67E-06	1.89E-06	2.11E-06	2.33E-06	2.55E-06	2.77E-06
barium	3.63E-06	2.85E-04	1.46E-03	2.49E-03	4.36E-03	3.07E-03	1.33E-04	4.80E-05	2.22E-06	6.61E-07	3.91E-06	1.97E-04	5.00E-04	8.03E-04	1.11E-03	1.41E-03	1.71E-03	2.01E-03	2.32E-03	2.62E-03	2.92E-03	3.23E-03	3.53E-03
bromine	5.57E-08	1.20E-06	4.66E-06	8.48E-06	1.29E-05	1.34E-05	3.76E-07	1.63E-07	4.37E-08	4.75E-09	4.57E-08	3.63E-07	6.96E-07	1.03E-06	1.36E-06	1.71E-06	2.03E-06	2.36E-06	2.70E-06	3.03E-06	3.37E-06	3.70E-06	4.03E-06
cadmium	6.61E-08	9.54E-07	3.15E-06	6.21E-06	8.48E-06	1.14E-05	2.26E-07	1.13E-07	4.78E-08	4.86E-09	4.84E-08	2.40E-08	6.22E-08	1.05E-07	1.39E-07	1.77E-07	2.15E-07	2.53E-07	2.92E-07	3.30E-07	3.68E-07	4.06E-07	4.44E-07
chlorine	6.68E-06	1.40E-04	5.22E-04	9.73E-04	1.46E-03	1.56E-03	4.29E-05	1.86E-05	5.23E-06	6.03E-07	5.50E-06	3.17E-05	4.86E-05	6.54E-05	8.23E-05	9.91E-05	1.16E-04	1.33E-04	1.50E-04	1.67E-04	1.83E-04	2.00E-04	2.17E-04
chromium (VI)	2.26E-08	6.16E-07	2.62E-06	4.73E-06	7.58E-06	6.97E-06	2.21E-07	8.93E-08	1.72E-08	2.19E-09	1.93E-08	2.22E-07	5.81E-07	8.60E-07	1.21E-06	1.54E-06	1.87E-06	2.20E-06	2.53E-06	2.86E-06	3.18E-06	3.51E-06	3.84E-06
cobalt	2.08E-07	3.44E-06	1.14E-05	2.23E-05	3.13E-05	4.05E-05	8.54E-07	4.17E-07	1.65E-07	1.62E-08	1.67E-07	3.01E-07	5.46E-07	7.89E-07	1.03E-06	1.28E-06	1.52E-06	1.76E-06	2.01E-06	2.26E-06	2.50E-06	2.74E-06	2.98E-06
copper	6.77E-07	5.94E-05	3.08E-04	5.23E-04	9.22E-04	6.39E-04	2.80E-05	1.01E-05	4.03E-07	1.36E-07	7.59E-07	4.16E-05	1.05E-04	1.68E-04	2.32E-04	2.95E-04	3.59E-04	4.22E-04	4.85E-04	5.48E-04	6.12E-04	6.76E-04	7.39E-04
lead	1.08E-06	1.76E-05	5.86E-05	1.16E-04	1.60E-04	2.10E-04	4.25E-06	2.11E-06	8.58E-07	8.62E-08	8.79E-07	1.26E-06	3.31E-06	5.34E-06	7.37E-06	9.40E-06	1.14E-05	1.34E-05	1.55E-05	1.75E-05	1.95E-05	2.16E-05	2.36E-05
manganese	1.84E-06	3.86E-05	1.37E-04	2.58E-04	3.84E-04	4.26E-04	1.07E-05	4.76E-06	1.44E-06	1.96E-07	1.51E-06	1.25E-05	3.18E-05	5.11E-05	7.04E-05	8.96E-05	1.08E-04	1.28E-04	1.48E-04	1.67E-04	1.86E-04	2.05E-04	2.25E-04
mercury	3.46E-08	1.60E-06	6.19E-06	1.10E-05	4.35E-06	5.80E-06	1.16E-07	5.80E-08	2.44E-08	2.49E-09	2.48E-08	7.26E-08	1.67E-07	3.31E-07	4.95E-07	6.58E-07	8.22E-07	9.86E-07	1.15E-06	1.31E-06	1.48E-06	1.64E-06	1.80E-06
nickel	1.44E-07	5.23E-06	2.39E-05	4.23E-05	7.01E-05	5.76E-05	2.09E-06	8.03E-07	1.06E-07	1.62E-08	1.28E-07	2.54E-06	6.21E-06	8.88E-06	1.35E-05	1.72E-05	2.09E-05	2.45E-05	2.82E-05	3.19E-05	3.56E-05	3.92E-05	4.29E-05
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
phosphorus	3.09E-06	5.01E-05	1.88E-04	3.33E-04	4.95E-04	5.99E-04	1.21E-05	5.99E-06	2.43E-06	2.50E-07	2.48E-06	2.27E-05	5.88E-05	9.50E-05	1.31E-04	1.67E-04	2.03E-04	2.39E-04	2.76E-04	3.12E-04	3.48E-04	3.84E-04	4.20E-04
selenium	6.62E-09	1.39E-07	8.91E-07	1.57E-06	2.59E-06	2.17E-06	7.93E-08	2.81E-08	4.29E-09	7.60E-10	5.13E-09	1.06E-07	2.95E-07	4.10E-07	5.65E-07	7.19E-07	8.74E-07	1.03E-06	1.18E-06	1.34E-06	1.49E-06	1.65E-06	1.80E-06
silicon	3.78E-04	6.30E-03	2.13E-02	4.18E-02	5.83E-02	7.50E-02	1.57E-03	7.84E-04	2.99E-04	3.00E-05	3.05E-04	2.86E-03	6.90E-03	1.11E-02	1.54E-02	1.96E-02	2.38E-02	2.80E-02	3.23E-02	3.65E-02	4.07E-02	4.50E-02	4.92E-02
silver	1.54E-07	2.46E-07	8.02E-07	1.59E-06	2.16E-06	2.95E-06	5.77E-08	2.96E-08	1.22E-08	1.20E-09	1.24E-08	1.00E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
sulfates	1.04E-05	4.30E-04	1.90E-03	3.31E-03	5.80E-03	4.32E-03	1.81E-04	6.78E-05	7.88E-06	1.07E-06	9.03E-06	2.44E-04	4.16E-04	5.88E-04	7.66E-04	9.28E-04	1.10E-03	1.27E-03	1.44E-03	1.61E-03	1.78E-03	1.95E-03	2.12E-03
thallium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.20E-08	8.26E-08	1.34E-07	1.85E-07	2.36E-07	2.87E-07	3.38E-07	3.89E-07	4.40E-07	4.91E-07	5.42E-07	5.92E-07
vanadium	5.36E-07	1.13E-05	4.33E-05	8.13E-05	1.23E-04	1.31E-04	3.45E-06	1.51E-06	4.17E-07	4.63E-08	4.43E-07	2.86E-06	7.27E-06	1.17E-05	1.61E-05	2.05E-05	2.49E-05	2.93E-05	3.37E-05	3.81E-05	4.26E-05	4.70E-05	5.14E-05
zinc	1.09E-06	2.46E-05	9.83E-05	1.81E-04	2.75E-04	2.80E-04	7.51E-06	3.24E-06	8.69E-07	1.35E-07	9.43E-07	1.30E-05	3.31E-05	5.32E-05	7.33E-05	9.34E-05	1.14E-04	1.34E-04	1.54E-04	1.74E-04	1.94E-04	2.14E-04	2.34E-04
Diesel PM	7.70E-04	1.94E-02	1.13E-01	2.04E-01	2.36E-01	1.79E-01	3.01E-03	1.05E-03	1.40E-04	3.00E-05	1.40E-04	1.05E-05	2.61E-05	4.17E-05	5.74E-05	7.30E-05	8.86E-05	1.04E-04	1.20E-04	1.35E-04	1.51E-04	1.67E-04	1.82E-04

[1] Residential Maximum Grid No. 636
NA = Not Available
NC = Not Calculated
Source: CDM Smith, 2017
ug/m³ = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Table 3-1.3
RAGS F Risk Calculation for LAX Landside Access Modernization Program, 2017-2027 Unmitigated Construction and 2024-2086 Operations - Lifetime Exposure - School Child
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	School Child
Exposure Time	8 (hrs/day)
Exposure Duration	6 (years)
Exposure Frequency	200 (days/year)
Averaging Time (non-carcinogenic)	52560 (hrs)
Averaging Time (carcinogenic)	613200 (hrs)

	Concentration at Location w/Maximum Risk (ug/m³)																								
	Construction									Operation by Year															
TAC	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
1,2,4-trimethylbenzene	3.28E-07	3.21E-05	8.63E-05	1.03E-04	1.48E-04	8.41E-05	8.53E-06	3.12E-06	0.00E+00	0.00E+00	8.20E-08	1.16E-02	1.16E-02	1.16E-02	1.17E-02	1.17E-02	1.17E-02	1.18E-02	1.18E-02	1.18E-02	1.19E-02	1.19E-02	1.19E-02	1.20E-02	1.20E-02
1,3-butadiene	1.84E-07	1.80E-05	4.84E-05	5.80E-05	8.32E-05	4.72E-05	4.78E-06	1.75E-06	0.00E+00	0.00E+00	4.60E-08	6.49E-03	6.49E-03	6.49E-03	6.57E-03	6.57E-03	6.57E-03	6.61E-03	6.61E-03	6.61E-03	6.65E-03	6.65E-03	6.65E-03	6.69E-03	6.69E-03
2,2,4-trimethylpentane	7.80E-07	7.62E-05	2.05E-04	2.46E-04	3.53E-04	2.00E-04	2.03E-05	7.41E-06	0.00E+00	0.00E+00	1.95E-07	2.75E-02	2.76E-02	2.76E-02	2.78E-02	2.78E-02	2.78E-02	2.80E-02	2.80E-02	2.80E-02	2.82E-02	2.82E-02	2.82E-02	2.84E-02	2.84E-02
acetaldehyde	9.60E-08	9.38E-06	2.52E-05	3.02E-05	4.34E-05	2.46E-05	2.50E-06	9.12E-07	0.00E+00	0.00E+00	2.40E-08	3.39E-03	3.40E-03	3.41E-03	3.42E-03	3.43E-03	3.43E-03	3.45E-03	3.46E-03	3.46E-03	3.47E-03	3.48E-03	3.48E-03	3.49E-03	3.50E-03
acrolein	4.40E-08	4.30E-06	1.16E-05	1.38E-05	1.99E-05	1.13E-05	1.14E-06	4.18E-07	0.00E+00	0.00E+00	1.10E-08	1.55E-03	1.56E-03	1.56E-03	1.57E-03	1.57E-03	1.57E-03	1.58E-03	1.58E-03	1.58E-03	1.59E-03	1.59E-03	1.59E-03	1.60E-03	1.60E-03
benzene	3.00E-06	2.02E-04	2.85E-04	2.97E-04	4.69E-04	2.54E-04	2.17E-05	7.94E-06	0.00E+00	0.00E+00	2.09E-07	2.95E-02	2.96E-02	2.97E-02	2.98E-02	2.99E-02	2.99E-02	3.01E-02	3.02E-02	3.03E-02	3.04E-02	3.05E-02	3.06E-02	3.07E-02	3.08E-02
cumene	4.00E-09	3.91E-07	1.05E-06	1.26E-06	1.81E-06	1.03E-06	1.04E-07	3.80E-08	0.00E+00	0.00E+00	1.00E-09	1.41E-04	1.42E-04	1.42E-04	1.42E-04	1.43E-04	1.43E-04	1.44E-04	1.44E-04	1.45E-04	1.45E-04	1.45E-04	1.46E-04	1.46E-04	1.47E-04
cyclohexane	2.08E-07	2.03E-05	5.47E-05	6.55E-05	9.41E-05	5.33E-05	5.41E-06	1.98E-06	0.00E+00	0.00E+00	5.20E-08	7.34E-03	7.36E-03	7.36E-03	7.41E-03	7.41E-03	7.41E-03	7.48E-03	7.48E-03	7.48E-03	7.55E-03	7.55E-03	7.55E-03	7.62E-03	7.62E-03
ethylbenzene	5.88E-07	4.22E-05	1.37E-04	1.53E-04	2.15E-04	2.04E-04	9.26E-06	1.20E-05	0.00E+00	0.00E+00	9.28E-07	7.75E-06	1.26E-02	1.26E-02	1.26E-02	1.27E-02	1.27E-02	1.27E-02	1.27E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.29E-02	1.29E-02
ethylene	2.16E-06	2.11E-04	5.67E-04	6.79E-04	9.75E-04	5.52E-04	5.61E-05	2.05E-05	0.00E+00	0.00E+00	5.39E-07	7.63E-02	7.65E-02	7.65E-02	7.68E-02	7.68E-02	7.68E-02	7.75E-02	7.75E-02	7.75E-02	7.82E-02	7.82E-02	7.82E-02	7.89E-02	7.89E-02
formaldehyde	5.36E-07	5.24E-05	1.41E-04	1.69E-04	2.42E-04	1.37E-04	1.39E-05	5.09E-06	0.00E+00	0.00E+00	1.34E-07	1.89E-02	1.90E-02	1.90E-02	1.91E-02	1.91E-02	1.91E-02	1.92E-02	1.92E-02	1.92E-02	1.93E-02	1.93E-02	1.93E-02	1.94E-02	1.94E-02
hexane, n- isopreme, except from vegetative	5.40E-07	5.28E-05	1.42E-04	1.70E-04	2.44E-04	1.38E-04	1.40E-05	5.13E-06	0.00E+00	0.00E+00	1.35E-07	1.91E-02	1.91E-02	1.92E-02	1.92E-02	1.93E-02	1.93E-02	1.94E-02	1.94E-02	1.94E-02	1.95E-02	1.95E-02	1.95E-02	1.96E-02	1.96E-02
emission sources	4.80E-08	4.69E-06	1.26E-05	1.51E-05	2.17E-05	1.23E-05	1.25E-06	4.56E-07	0.00E+00	0.00E+00	1.20E-08	1.69E-03	1.70E-03	1.70E-03	1.71E-03	1.71E-03	1.71E-03	1.72E-03	1.72E-03	1.72E-03	1.73E-03	1.73E-03	1.73E-03	1.74E-03	1.74E-03
methyl alcohol	4.00E-08	3.91E-06	1.05E-05	1.26E-05	1.81E-05	1.03E-05	1.04E-06	3.80E-07	0.00E+00	0.00E+00	1.00E-08	1.41E-03	1.42E-03	1.42E-03	1.42E-03	1.43E-03	1.43E-03	1.44E-03	1.44E-03	1.45E-03	1.45E-03	1.45E-03	1.46E-03	1.46E-03	1.47E-03
methyl ethyl ketone	8.00E-09	7.82E-07	2.10E-06	2.52E-06	3.62E-06	2.05E-06	2.08E-07	7.60E-08	0.00E+00	0.00E+00	2.00E-09	2.82E-04	2.83E-04	2.84E-04	2.85E-04	2.85E-04	2.85E-04	2.87E-04	2.88E-04	2.88E-04	2.89E-04	2.90E-04	2.90E-04	2.91E-04	2.91E-04
naphthalene	1.60E-08	1.56E-06	4.21E-06	5.04E-06	7.24E-06	4.10E-06	4.16E-07	1.52E-07	0.00E+00	0.00E+00	4.00E-09	5.64E-04	5.66E-04	5.68E-04	5.70E-04	5.71E-04	5.71E-04	5.74E-04	5.76E-04	5.76E-04	5.78E-04	5.80E-04	5.80E-04	5.82E-04	5.82E-04
propionaldehyde	1.20E-08	1.17E-06	3.16E-06	3.78E-06	5.43E-06	3.08E-06	3.12E-07	1.14E-07	0.00E+00	0.00E+00	3.00E-09	4.23E-04	4.25E-04	4.26E-04	4.27E-04	4.28E-04	4.28E-04	4.30E-04	4.32E-04	4.32E-04	4.34E-04	4.35E-04	4.35E-04	4.37E-04	4.37E-04
propylene	1.04E-06	1.01E-04	2.72E-04	3.26E-04	4.69E-04	2.65E-04	2.69E-05	9.84E-06	0.00E+00	0.00E+00	2.59E-07	3.65E-02	3.67E-02	3.68E-02	3.69E-02	3.70E-02	3.70E-02	3.72E-02	3.73E-02	3.73E-02	3.75E-02	3.76E-02	3.76E-02	3.78E-02	3.78E-02
styrene	4.00E-08	3.91E-06	1.05E-05	1.26E-05	1.81E-05	1.03E-05	1.04E-06	3.80E-07	0.00E+00	0.00E+00	1.00E-08	1.41E-03	1.42E-03	1.42E-03	1.42E-03	1.43E-03	1.43E-03	1.44E-03	1.44E-03	1.45E-03	1.45E-03	1.45E-03	1.46E-03	1.46E-03	1.47E-03
toluene	2.59E-06	2.11E-04	5.91E-04	7.28E-04	1.03E-03	8.13E-04	5.00E-05	4.24E-05	0.00E+00	0.00E+00	1.94E-06	2.18E-05	6.87E-02	6.91E-02	6.94E-02	6.98E-02	7.01E-02	7.05E-02	7.08E-02	7.12E-02	7.15E-02	7.19E-02	7.22E-02	7.26E-02	7.29E-02
xylene (total)	2.00E-06	1.71E-04	4.98E-04	5.79E-04	8.24E-04	5.98E-04	4.23E-05	2.93E-05	0.00E+00	0.00E+00	1.12E-06	1.27E-05	5.74E-02	5.76E-02	5.78E-02	5.80E-02	5.81E-02	5.84E-02	5.86E-02	5.87E-02	5.89E-02	5.91E-02	5.92E-02	5.94E-02	5.96E-02
a

Table 3-2.1
RAGS F Risk Calculation for LAX Landside Access Modernization Program, 2017-2027 Mitigated Construction and 2024-2086 Operations - Lifetime Exposure - Adult Resident
(Based on Peak Location of Residential Cancer Risks[1])

RAGS F Equations
EC = (CA x ET x EF x ED) / (AT)
Risk = IUR x EC
HQ = EC / REL
Where: HQ = Hazard Quotient EC = Exposure Concentration
IUR = Inhalation Unit Risk AT = Averaging Time (for cancer or non-cancer)
REL = Reference Exposure Level

	Toxicity Criteria		Cancer Risk to Adult Resident																						Cancer Risks	
	EPA Inhalation Unit Risk	Cal EPA Inhalation Unit Risk	Construction							Construction and Operations				Operation							Ops	Ops	Cancer Risk to	Cancer Risk to
TAC	(ug/m³)⁻¹	(ug/m³)⁻¹	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035 - 2044	2035 - 2086	30-year Resident	70-year Resident
1,2,4-trimethylbenzene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	3.00E-05	1.70E-04	4.28E-13	5.02E-11	1.14E-10	1.18E-10	1.76E-10	9.88E-11	1.27E-11	1.64E-08	1.65E-08	1.65E-08	1.65E-08	1.66E-08	1.66E-08	1.66E-08	1.67E-08	1.67E-08	1.67E-08	1.67E-08	2.01E-07	8.73E-07	3.84E-07	1.06E-06
2,2,4-trimethylpentane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	2.20E-06	2.70E-06	3.55E-15	4.16E-13	9.45E-13	9.80E-13	1.46E-12	8.18E-13	1.05E-13	1.36E-10	1.36E-10	1.37E-10	1.37E-10	1.37E-10	1.37E-10	1.38E-10	1.38E-10	1.39E-10	1.39E-10	1.39E-10	1.67E-09	7.23E-09	3.19E-09	8.75E-09
acrolein	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
benzene	7.80E-06	2.90E-05	1.27E-12	9.07E-11	1.22E-10	1.09E-10	1.68E-10	8.98E-11	9.88E-12	1.27E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.29E-08	1.29E-08	1.29E-08	1.30E-08	1.30E-08	1.30E-08	1.56E-07	6.76E-07	2.98E-07	8.18E-07
cumene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cyclohexane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	2.50E-06	2.50E-06	2.01E-14	1.72E-12	4.40E-12	4.96E-12	1.29E-11	6.86E-12	3.63E-13	4.68E-10	4.68E-10	4.69E-10	4.70E-10	4.71E-10	4.72E-10	4.73E-10	4.74E-10	4.75E-10	4.76E-10	4.77E-10	5.73E-09	2.48E-08	1.10E-08	3.01E-08
ethylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	1.30E-05	6.00E-06	4.41E-14	5.17E-12	1.17E-11	1.22E-11	1.81E-11	1.02E-11	1.31E-12	1.69E-09	1.69E-09	1.70E-09	1.70E-09	1.70E-09	1.71E-09	1.71E-09	1.71E-09	1.72E-09	1.73E-09	1.73E-09	2.07E-08	8.97E-08	3.95E-08	1.09E-07
hexane, n- isoprene, except from	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
vegetative emission sources	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
naphthalene	3.40E-05	3.40E-05	7.43E-15	8.74E-13	1.98E-12	2.06E-12	3.08E-12	1.72E-12	2.22E-13	2.86E-10	2.86E-10	2.87E-10	2.87E-10	2.88E-10	2.88E-10	2.89E-10	2.90E-10	2.90E-10	2.91E-10	2.91E-10	3.50E-09	1.52E-08	6.68E-09	1.84E-08
propionaldehyde	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
propylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
styrene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
toluene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
xylene (total)	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
aluminum	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ammonium ion	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
antimony	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
arsenic	4.30E-03	3.30E-03	1.41E-12	3.22E-11	6.22E-11	7.82E-11	1.08E-10	8.61E-11	7.43E-12	8.20E-12	1.69E-11	2.74E-11	4.01E-11	5.04E-11	6.20E-11	7.36E-11	8.52E-11	9.67E-11	1.08E-10	1.20E-10	1.88E-09	6.84E-09	2.64E-09	7.90E-09
barium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
beomine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cadmium	1.80E-03	4.20E-03	2.89E-12	6.13E-11	1.14E-10	1.47E-10	2.00E-10	1.64E-10	1.31E-11	8.34E-12	6.04E-12	6.30E-12	1.12E-11	1.12E-11	1.38E-11	1.63E-11	1.89E-11	2.15E-11	2.41E-11	2.66E-11	3.91E-10	1.52E-09	1.22E-09	2.38E-09
chlorine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
chromium (VI)	1.20E-02	1.50E-01	3.85E-11	1.47E-09	3.40E-09	3.78E-09	5.68E-09	3.91E-09	4.67E-10	5.25E-10	1.13E-09	1.90E-09	2.73E-09	3.49E-09	4.29E-09	5.08E-09	5.88E-09	6.68E-09	7.47E-09	8.27E-09	1.09E-07	4.72E-07	1.75E-07	5.38E-07
cobalt	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
copper	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
lead	NA	1.20E-05	1.49E-13	3.24E-12	6.09E-12	7.80E-12	1.06E-11	8.64E-12	7.07E-13	5.36E-13	6.61E-13	9.33E-13	1.44E-12	1.70E-12	2.03E-12	2.48E-12	2.87E-12	3.28E-12	3.65E-12	4.04E-12	5.32E-11	2.31E-10	1.14E-10	2.92E-10
manganese	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
mercury	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
nickel	2.40E-04	2.60E-04	4.21E-13	2.16E-11	5.38E-11	5.73E-11	8.88E-11	5.79E-11	7.67E-12	9.52E-12	2.18E-11	3.70E-11	5.28E-11	6.79E-11	8.34E-11	9.89E-11	1.14E-10	1.30E-10	1.45E-10	1.61E-10	2.12E-09	9.17E-09	3.53E-09	1.04E-08
non-phosphate phosphorous	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
phosphorus	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
selenium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silicon	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silver	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
sulfates	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
thallium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
vanadium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
zinc	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Diesel PM	3.00E-04	3.00E-04	3.70E-10	1.26E-08	4.27E-08	4.63E-08	5.19E-08	3.86E-08	3.37E-09	1.43E-09	2.94E-10	1.89E-10	4.13E-10	2.67E-10	3.32E-10	3.98E-10	4.49E-10	5.04E-10	5.64E-10	6.23E-10	8.16E-09	3.55E-08	2.07E-07	2.34E-07
	TOTAL		4.1E-10	1.5E-08	4.7E-08	5.1E-08	5.8E-08	4.0E-08	3.9E-09	3.4E-08	3.3E-08	3.4E-08	3.5E-08	3.6E-08	3.7E-08	3.8E-08	3.9E-08	4.0E-08	4.1E-08	4.2E-08	5.1E-07	2.2E-06	1.1E-06	2.8E-06

NA = Not Available
NC = Not Calculated
Source: CDM Smith, 2017

ug/m³ = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

CDM Smith

Construction
3-2 Mitigated

Table 3-2.2
RAGS F Risk Calculation for LAX Landside Access Modernization Program, 2017-2027 Mitigated Construction and 2024-2086 Operations - Lifetime Exposure - Child Resident
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	Residential Child
Exposure Time	24 (hrs/day)
Exposure Duration	6 (years)
Exposure Frequency	350 (days/year)
Averaging Time (non-carcinogenic)	52560 (hrs)
Averaging Time (carcinogenic)	613200 (hrs)

	Concentration at Location w/Maximum Risk (ug/m³)																				
	Construction												Operation by Year								
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027		2024	2025	2026	2027					
TAC																					
1,2,4-trimethylbenzene	3.28E-07	2.84E-05	8.72E-05	1.11E-04	1.44E-04	7.92E-05	8.04E-06	2.71E-06	0.00E+00	0.00E+00	8.20E-08		1.14E-02	1.15E-02	1.15E-02	1.16E-02					
1,3-butadiene	1.84E-07	1.59E-05	4.89E-05	6.23E-05	8.09E-05	4.44E-05	4.51E-06	1.52E-06	0.00E+00	0.00E+00	4.60E-08		6.40E-03	6.42E-03	6.45E-03	6.47E-03					
2,2,4-trimethylpentane	7.80E-07	6.77E-05	2.07E-04	2.64E-04	3.43E-04	1.88E-04	1.91E-05	6.44E-06	0.00E+00	0.00E+00	1.95E-07		2.71E-02	2.72E-02	2.73E-02	2.74E-02					
acetaldehyde	9.60E-08	8.30E-06	2.55E-05	3.25E-05	4.22E-05	2.32E-05	2.35E-06	7.92E-07	0.00E+00	0.00E+00	2.40E-08		3.34E-03	3.35E-03	3.36E-03	3.37E-03					
acrolein	4.40E-08	3.81E-06	1.17E-05	1.49E-05	1.93E-05	1.06E-05	1.08E-06	3.63E-07	0.00E+00	0.00E+00	1.10E-08		1.53E-03	1.54E-03	1.54E-03	1.55E-03					
benzene	2.97E-06	1.90E-04	2.75E-04	3.11E-04	4.53E-04	2.40E-04	2.05E-05	6.90E-06	0.00E+00	0.00E+00	2.09E-07		2.91E-02	2.92E-02	2.93E-02	2.94E-02					
cumene	4.00E-09	3.44E-07	1.06E-06	1.36E-06	1.76E-06	9.66E-07	9.80E-08	3.30E-08	0.00E+00	0.00E+00	1.00E-09		1.39E-04	1.40E-04	1.40E-04	1.41E-04					
cyclohexane	2.08E-07	1.80E-05	5.53E-05	7.05E-05	9.16E-05	5.02E-05	5.10E-06	1.72E-06	0.00E+00	0.00E+00	5.20E-08		7.24E-03	7.26E-03	7.29E-03	7.31E-03					
ethylbenzene	5.88E-07	3.78E-05	1.48E-04	1.65E-04	1.98E-04	2.13E-04	8.72E-06	1.04E-05	0.00E+00	0.00E+00	6.98E-07		7.51E-06	1.34E-02	1.24E-02	1.25E-02					
ethylene	2.16E-06	1.86E-04	5.73E-04	7.30E-04	9.48E-04	5.21E-04	5.28E-05	1.78E-05	0.00E+00	0.00E+00	5.39E-07		7.50E-02	7.53E-02	7.55E-02	7.58E-02					
formaldehyde	5.36E-07	4.64E-05	1.43E-04	1.82E-04	2.36E-04	1.29E-04	1.31E-05	4.42E-06	0.00E+00	0.00E+00	1.34E-07		1.86E-02	1.87E-02	1.88E-02	1.88E-02					
hexane, n-	5.40E-07	4.67E-05	1.44E-04	1.83E-04	2.37E-04	1.30E-04	1.32E-05	4.46E-06	0.00E+00	0.00E+00	1.35E-07		1.88E-02	1.89E-02	1.89E-02	1.90E-02					
isoprene, except from vegetative emission sources	4.80E-08	4.15E-06	1.28E-05	1.63E-05	2.11E-05	1.16E-05	1.18E-06	3.96E-07	0.00E+00	0.00E+00	1.20E-08		1.67E-03	1.68E-03	1.68E-03	1.69E-03					
methyl alcohol	4.00E-08	3.44E-06	1.06E-05	1.36E-05	1.76E-05	9.66E-06	9.80E-07	3.30E-07	0.00E+00	0.00E+00	1.00E-08		1.39E-03	1.40E-03	1.40E-03	1.41E-03					
methyl ethyl ketone	8.00E-09	6.92E-07	2.13E-06	2.71E-06	3.52E-06	1.93E-06	1.96E-07	6.60E-08	0.00E+00	0.00E+00	2.00E-09		2.78E-04	2.79E-04	2.80E-04	2.81E-04					
naphthalene	1.60E-08	1.38E-06	4.26E-06	5.42E-06	7.04E-06	3.86E-06	3.92E-07	1.32E-07	0.00E+00	0.00E+00	4.00E-09		5.57E-04	5.59E-04	5.61E-04	5.62E-04					
propionaldehyde	1.20E-08	1.04E-06	3.19E-06	4.07E-06	5.28E-06	2.90E-06	2.94E-07	9.90E-08	0.00E+00	0.00E+00	3.00E-09		4.18E-04	4.19E-04	4.20E-04	4.22E-04					
propylene	1.04E-06	8.96E-05	2.76E-04	3.51E-04	4.56E-04	2.50E-04	2.54E-05	8.55E-06	0.00E+00	0.00E+00	2.59E-07		3.60E-02	3.62E-02	3.63E-02	3.64E-02					
styrene	4.00E-08	3.44E-06	1.06E-05	1.36E-05	1.76E-05	9.66E-06	9.80E-07	3.30E-07	0.00E+00	0.00E+00	1.00E-08		1.39E-03	1.40E-03	1.40E-03	1.41E-03					
toluene	2.59E-06	1.88E-04	6.67E-04	7.84E-04	9.57E-04	8.25E-04	4.77E-05	3.67E-05	0.00E+00	0.00E+00	1.94E-06		2.11E-05	6.78E-02	6.80E-02	6.82E-02					
xylene (total)	2.00E-06	1.52E-04	5.19E-04	6.23E-04	7.76E-04	6.98E-04	3.99E-05	2.94E-05	0.00E+00	0.00E+00	1.12E-06		1.23E-05	5.66E-02	5.68E-02	5.70E-02					
aluminum	1.32E-04	1.90E-03	4.90E-03	7.15E-03	7.36E-03	7.05E-03	4.60E-04	2.21E-04	1.01E-04	9.49E-06	1.02E-04		7.06E-04	9.79E-04	1.25E-03	1.52E-03					
ammonium ion	2.23E-07	3.49E-06	9.46E-06	1.36E-05	1.46E-05	1.30E-05	9.09E-07	4.19E-07	1.68E-07	1.61E-08	1.72E-07		1.93E-05	2.67E-05	3.41E-05	4.14E-05					
antimony	2.64E-08	3.80E-07	9.79E-07	1.43E-06	1.48E-06	1.41E-06	9.20E-08	4.41E-08	2.01E-08	1.90E-09	2.03E-08		4.51E-07	6.23E-07	7.94E-07	9.66E-07					
arsenic	3.38E-08	5.20E-07	1.36E-06	2.01E-06	2.15E-06	1.95E-06	1.35E-07	6.24E-08	2.55E-08	2.50E-09	2.61E-08		1.15E-07	1.58E-07	2.02E-07	2.45E-07					
barium	3.50E-06	2.37E-04	9.13E-04	1.17E-03	1.63E-03	9.66E-04	1.08E-04	3.87E-05	1.55E-06	6.40E-07	3.20E-06		1.84E-04	2.23E-04	2.83E-04	3.42E-04					
beomine	5.04E-08	1.00E-06	2.92E-06	3.98E-06	4.89E-06	3.71E-06	1.21E-07	1.31E-07	3.75E-08	3.91E-09	3.92E-08		3.75E-07	9.84E-07	1.94E-07	1.94E-06					
cadmium	5.42E-08	7.80E-07	2.01E-06	2.94E-06	3.03E-06	2.89E-06	1.89E-07	9.05E-08	4.13E-08	3.90E-09	4.17E-08		1.99E-08	2.75E-08	3.50E-08	4.26E-08					
chlorine	6.05E-06	1.17E-04	3.36E-04	4.58E-04	5.32E-04	4.28E-04	3.54E-05	1.92E-05	4.52E-06	4.40E-07	4.66E-06		2.64E-04	1.25E-05	-1.36E-06	-1.52E-05					
chromium (VI)	2.06E-08	5.10E-07	1.65E-06	2.22E-06	2.76E-06	1.86E-06	1.81E-07	7.18E-08	1.45E-08	1.91E-09	1.96E-08		1.04E-07	1.47E-07	1.87E-07	2.27E-07					
cobalt	1.88E-07	2.83E-06	7.37E-06	1.06E-05	1.12E-05	1.04E-05	7.13E-07	3.33E-07	1.43E-07	1.35E-08	1.44E-07		2.30E-07	1.76E-07	1.01E-07	2.68E-08					
copper	6.56E-07	4.94E-05	1.92E-04	2.44E-04	3.40E-04	2.01E-04	2.28E-05	8.12E-06	2.61E-07	1.29E-07	6.12E-07		3.44E-05	4.68E-05	5.91E-05	7.15E-05					
lead	9.78E-07	1.44E-05	3.76E-05	5.47E-05	5.71E-05	5.35E-05	3.56E-06	1.69E-06	7.44E-07	7.06E-08	7.54E-07		1.07E-06	1.47E-06	1.87E-06	2.27E-06					
manganese	1.67E-06	3.00E-05	8.70E-05	1.22E-04	1.36E-04	1.14E-04	8.90E-06	3.84E-06	1.24E-06	1.32E-07	1.30E-06		1.04E-05	1.40E-05	1.77E-05	2.14E-05					
mercury	2.78E-08	4.00E-07	1.03E-06	1.51E-06	1.55E-06	1.48E-06	9.68E-08	4.64E-08	2.12E-08	2.00E-09	2.14E-08		5.97E-08	2.45E-08	1.05E-07	1.28E-07					
nickel	1.33E-07	4.34E-06	1.50E-05	1.97E-05	2.89E-05	1.71E-05	1.70E-06	6.47E-07	8.72E-08	1.42E-08	1.08E-07		2.11E-06	2.71E-06	3.31E-06	3.90E-06					
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00					
phosphorus	2.76E-06	4.10E-05	1.08E-04	1.56E-04	1.61E-04	1.52E-04	1.02E-05	4.80E-06	2.10E-06	1.98E-07	2.13E-06		1.88E-05	2.60E-05	3.32E-05	4.09E-05					
selenium	5.17E-09	1.62E-07	5.61E-07	7.40E-07	9.58E-07	6.37E-07	6.17E-08	2.36E-08	3.38E-09	5.00E-10	4.21E-09		8.32E-08	1.14E-07	1.44E-07	1.75E-07					
silicon	3.42E-04	5.18E-03	1.36E-02	1.97E-02	2.06E-02	1.92E-02	1.31E-03	6.12E-04	2.59E-04	2.51E-05	2.64E-04		2.21E-03	3.05E-03	3.89E-03	4.72E-03					
silver	1.39E-08	2.00E-07	5.15E-07	7.53E-07	7.77E-07	7.42E-07	4.84E-08	2.32E-08	1.06E-08	1.00E-09	1.07E-08		0.00E+00	0.00E+00	0.00E+00	0.00E+00					
sulfates	9.56E-06	3.67E-04	1.22E-03	1.54E-03	2.07E-03	1.35E-03	1.47E-04	5.45E-05	6.58E-06	9.24E-07	7.67E-06		2.03E-04	1.26E-04	4.94E-05	-2.78E-05					
thallium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		2.65E-08	3.66E-08	4.67E-08	5.68E-08					
vanadium	4.86E-07	9.28E-06	2.75E-05	3.82E-05	4.46E-05	3.54E-05	2.86E-06	1.21E-06	3.57E-07	3.97E-08	3.81E-07		2.37E-06	3.24E-06	4.11E-06	4.98E-06					
zinc	9.87E-07	2.03E-05	6.25E-05	8.57E-05	1.01E-04	7.70E-05	6.23E-06	2.84E-06	7.07E-07	6.91E-08	7.74E-07		1.08E-05	1.46E-05	1.85E-05	2.23E-05					
Diesel PM	9.00E-05	2.53E-03	1.06E-02	1.33E-02	1.27E-02	8.80E-03	6.70E-04	2.40E-04	5.00E-05	1.00E-05	5.00E-05		8.21E-06	2.05E-05	3.28E-05	4.51E-05					

[1] Residential Maximum Grid No. 493
NA = Not Available
NC = Not Calculated
Source: CDM Smith, 2017

ug/m³ = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Table 3-2.1
RAGS F Risk Calculation for LAX Landside Access Modernization Program, 2017-2027 Mitigated Construction and 2024-2086 Operations - Lifetime Exposure - Adult Resident
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	Residential Adult
Exposure Time	24 (hrs/day)
Exposure Duration	70 (years)
Exposure Frequency	350 (days/year)
Averaging Time (non-carcinogenic	613200 (hrs)
Averaging Time (carcinogenic)	613200 (hrs)

	Concentration at Location w/Maximum Risk (ug/m³)																				
	Construction												Operation by Year								
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027		2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
TAC																								
1,2,4-trimethylbenzene	3.28E-07	3.85E-05	8.73E-05	9.05E-05	1.35E-04	7.58E-05	9.76E-06	3.85E-06	0.00E+00	0.00E+00	8.20E-08	1.26E-02	1.26E-02	1.26E-02	1.27E-02	1.27E-02	1.27E-02	1.27E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02
1,3-butadiene	1.84E-07	2.16E-05	4.90E-05	5.08E-05	7.55E-05	4.24E-05	5.47E-06	2.16E-06	0.00E+00	0.00E+00	4.60E-08	7.05E-03	7.07E-03	7.08E-03	7.09E-03	7.11E-03	7.12E-03	7.14E-03	7.15E-03	7.16E-03	7.18E-03	7.19E-03	7.21E-03	
2,2,4-trimethylpentane	7.80E-07	9.15E-05	2.06E-04	2.16E-04	3.20E-04	1.80E-04	2.32E-05	9.17E-06	0.00E+00	0.00E+00	1.95E-07	2.99E-02	3.00E-02	3.01E-02	3.01E-02	3.02E-02	3.03E-02	3.03E-02	3.04E-02	3.04E-02	3.05E-02	3.05E-02	3.06E-02	
acetaldehyde	9.60E-08	1.13E-05	2.56E-05	2.65E-05	3.94E-05	2.21E-05	2.86E-06	1.13E-06	0.00E+00	0.00E+00	2.40E-08	3.68E-03	3.69E-03	3.70E-03	3.71E-03	3.72E-03	3.73E-03	3.74E-03	3.75E-03	3.76E-03	3.77E-03	3.78E-03	3.79E-03	
acrolein	4.40E-08	5.18E-06	1.17E-05	1.21E-05	1.81E-05	1.01E-05	1.31E-06	5.17E-07	0.00E+00	0.00E+00	1.10E-08	1.69E-03	1.69E-03	1.70E-03	1.70E-03	1.71E-03	1.71E-03	1.72E-03	1.72E-03	1.73E-03	1.73E-03	1.74E-03	1.74E-03	
benzene	3.06E-06	2.28E-04	3.08E-04	2.73E-04	4.16E-04	2.28E-04	2.49E-05	9.82E-06	0.00E+00	0.00E+00	2.07E-07	3.20E-02	3.21E-02	3.22E-02	3.23E-02	3.24E-02	3.25E-02	3.26E-02	3.27E-02	3.28E-02	3.27E-02	3.27E-02	3.28E-02	
cumene	4.00E-09	4.69E-07	1.07E-06	1.10E-06	1.64E-06	9.22E-07	1.19E-07	4.70E-08	0.00E+00	0.00E+00	1.00E-09	1.53E-04	1.54E-04	1.54E-04	1.55E-04	1.55E-04	1.55E-04	1.56E-04	1.56E-04	1.56E-04	1.56E-04	1.56E-04	1.57E-04	
cyclohexane	2.08E-07	2.44E-05

Table 3-2.3
RAGS F Risk Calculation for LAX Landside Access Modernization Program, 2017-2027 Mitigated Construction and 2024-2086 Operations - Lifetime Exposure - School Child
(Based on Peak Location of Residential Cancer Risks[1])

RAGS F Equations
EC = (CA x ET x EF x ED) / (AT)
Risk = IUR x EC
HQ = EC / REL
Where: HQ = Hazard Quotient EC = Exposure Concentration
IUR = Inhalation Unit Risk AT = Averaging Time (for cancer or non-cancer)
REL = Reference Exposure Level

	Toxicity Criteria		Cancer Risk to Adult Resident														2019-2027	2017-2028
	EPA Inhalation Unit Risk	CalEPA Inhalation Unit Risk	Construction							Construction and Operations					Operations	Cancer Risk to 9-yr School	Cancer Risk to 12-yr School
TAC	(ug/m^3)$^{-1}$	(ug/m^3)$^{-1}$	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028		Child	Child
1,2,4-trimethylbenzene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	3.00E-05	1.70E-04	8.16E-14	7.98E-12	2.15E-11	2.57E-11	3.67E-11	2.07E-11	2.14E-12	2.88E-09	2.89E-09	2.90E-09	2.91E-09	2.91E-09	1.17E-08	1.46E-08	
2,2,4-trimethylpentane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	2.20E-06	2.70E-06	6.76E-16	6.61E-14	1.78E-13	2.13E-13	3.04E-13	1.72E-13	1.78E-14	2.39E-11	2.39E-11	2.40E-11	2.41E-11	2.42E-11	9.68E-11	1.21E-10	
acrolein	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
benzene	7.80E-06	2.90E-05	2.27E-13	1.53E-11	2.16E-11	2.24E-11	3.53E-11	1.91E-11	1.66E-12	2.23E-09	2.24E-09	2.25E-09	2.26E-09	9.07E-09	1.13E-08		
cumene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cyclohexane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	2.50E-06	2.50E-06	3.84E-15	2.75E-13	8.93E-13	1.00E-12	1.40E-12	1.32E-12	6.10E-14	8.20E-11	8.23E-11	8.24E-11	8.27E-11	8.29E-11	3.34E-10	4.17E-10	
ethylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	1.30E-05	6.00E-06	8.39E-15	8.20E-13	2.21E-12	2.64E-12	3.78E-12	2.13E-12	2.20E-13	2.96E-10	2.97E-10	2.98E-10	2.99E-10	3.00E-10	1.20E-09	1.50E-09	
hexane, n-	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
isoprene, except from vegetative emission sources	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
naphthalene	3.40E-05	3.40E-05	1.42E-15	1.39E-13	3.74E-13	4.47E-13	6.39E-13	3.60E-13	3.73E-14	5.01E-11	5.02E-11	5.04E-11	5.05E-11	5.07E-11	2.03E-10	2.54E-10	
propionaldehyde	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
propylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
styrene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
toluene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
xylene (total)	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
aluminum	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ammonium ion	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
antimony	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
arsenic	4.30E-03	3.30E-03	2.78E-13	5.13E-12	1.21E-11	1.71E-11	2.06E-11	1.78E-11	1.26E-12	1.51E-12	1.77E-12	2.24E-12	3.12E-12	3.55E-12	7.75E-11	8.64E-11	
barium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
bromine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cadmium	1.80E-03	4.20E-03	5.68E-13	9.79E-12	2.22E-11	3.19E-11	3.72E-11	3.36E-11	2.21E-12	1.34E-12	8.04E-13	5.34E-13	1.11E-12	7.88E-13	1.31E-10	1.42E-10	
chlorine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
chromium (VI)	1.20E-02	1.50E-01	7.76E-12	2.31E-10	6.55E-10	8.34E-10	1.17E-09	8.39E-10	7.68E-11	9.77E-11	1.14E-10	1.53E-10	2.02E-10	2.39E-10	4.15E-09	4.62E-09	
cobalt	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
copper	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
lead	NA	NA	1.20E-05	2.53E-14	5.18E-13	1.19E-12	1.70E-12	2.03E-12	1.78E-12	1.19E-13	9.10E-14	7.53E-14	7.70E-14	1.22E-13	1.20E-13	7.35E-12	7.81E-12
manganese	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
mercury	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
nickel	2.40E-04	2.60E-04	8.68E-14	3.41E-12	1.03E-11	1.27E-11	1.88E-11	1.26E-11	1.26E-12	1.80E-12	2.19E-12	2.92E-12	3.81E-12	4.56E-12	6.63E-11	7.44E-11	
non-phosphate phosphorous	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
phosphorus	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
selenium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silicon	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silver	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
sulfates	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
thallium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
vanadium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
zinc	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Diesel PM	3.00E-04	3.00E-04	7.05E-11	2.15E-09	8.14E-09	9.85E-09	1.03E-08	7.23E-09	5.64E-10	2.25E-10	5.43E-11	3.26E-11	7.33E-11	4.35E-11	3.65E-08	3.87E-08	
		TOTAL	7.9E-11	2.4E-09	8.9E-09	1.1E-08	1.2E-08	8.2E-09	6.5E-10	5.9E-09	5.8E-09	5.8E-09	5.9E-09	5.9E-09	6.3E-08	7.2E-08	

NA = Not Available
NC = Not Calculated
Source: CDM Smith, 2017

ug/m^3 = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Table 3-2.2
RAGS F Risk Calculation for LAX Landside Access Modernization Program, 2017-2027 Mitigated Construction and 2024-2086 Operations - Lifetime Exposure - Child Resident
(Based on Peak Location of Residential Cancer Risks[1])

RAGS F Equations
EC = (CA x ET x EF x ED) / (AT)
Risk = IUR x EC
HQ = EC / REL
Where: HQ = Hazard Quotient EC = Exposure Concentration
IUR = Inhalation Unit Risk AT = Averaging Time (for cancer or non-cancer)
REL = Reference Exposure Level

	Toxicity Criteria		Cancer Risk to Child Resident													2019-2024	2019-2027
	EPA Inhalation Unit Risk	CalEPA Inhalation Unit Risk	Construction					Construction and Operations								Cancer Risk to 6-Yr Child	Cancer Risk to 9-Yr Child
TAC	(ug/m^3)$^{-1}$	(ug/m^3)$^{-1}$	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Resident	Resident
1,2,4-trimethylbenzene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	3.00E-05	1.70E-04	1.14E-10	1.45E-10	1.88E-10	1.03E-10	1.05E-11	1.48E-08	1.50E-08	1.50E-08	1.51E-08	1.51E-08	1.52E-08	1.52E-08	1.53E-08	1.55E-08	6.05E-08
2,2,4-trimethylpentane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	2.20E-06	2.70E-06	9.44E-13	1.20E-12	1.56E-12	8.57E-13	8.70E-14	1.24E-10	1.24E-10	1.24E-10	1.25E-10	1.25E-10	1.26E-10	1.26E-10	1.27E-10	1.28E-10	5.01E-10
acrolein	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
benzene	7.80E-06	2.90E-05	1.09E-10	1.23E-10	1.80E-10	9.53E-11	8.14E-12	1.16E-08	1.16E-08	1.16E-08	1.17E-08	1.21E-08	4.70E-08				
cumene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cyclohexane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	2.50E-06	2.50E-06	5.07E-12	5.66E-12	6.59E-12	7.31E-12	2.99E-13	4.25E-10	4.28E-10	4.27E-10	4.29E-10	4.44E-10	1.73E-09				
ethylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	1.30E-05	6.00E-06	1.17E-11	1.49E-11	1.94E-11	1.06E-11	1.08E-12	1.53E-09	1.54E-09	1.54E-09	1.55E-09	1.59E-09	6.22E-09				
hexane, n-	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
isoprene, except from vegetative emission sources	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
naphthalene	3.40E-05	3.40E-05	1.98E-12	2.52E-12	3.28E-12	1.80E-12	1.83E-13	2.59E-10	2.60E-10	2.61E-10	2.62E-10	2.69E-10	1.05E-09				
propionaldehyde	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
propylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
styrene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
toluene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
xylene (total)	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
aluminum	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ammonium ion	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
antimony	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
arsenic	4.30E-03	3.30E-03	6.30E-11	9.07E-11	9.72E-11	8.80E-11	6.11E-12	8.02E-12	8.31E-12	9.22E-12	1.22E-11	3.53E-10	3.83E-10				
barium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
bromine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cadmium	1.80E-03	4.20E-03	1.16E-10	1.69E-10	1.74E-10	1.67E-10	1.09E-11	6.35E-12	3.98E-12	2.24E-12	4.85E-12	6.43E-10	6.54E-10				
chlorine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
chromium (VI)	1.20E-02	1.50E-01	3.40E-09	4.57E-09	5.71E-09	4.08E-09	3.72E-10	5.28E-10	5.28E-10	5.28E-10	7.73E-10	1.86E-08	2.06E-08				
cobalt	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
copper	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
lead	NA	NA	1.20E-05	6.18E-12	8.99E-12	9.39E-12	8.80E-12	5.85E-13	4.53E-13	3.63E-13	3.19E-13	4.97E-13	3.44E-11	3.56E-11			
manganese	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
mercury	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
nickel	2.40E-04	2.60E-04	5.35E-11	7.02E-11	9.21E-11	6.09E-11	6.07E-12	9.81E-12	9.98E-12	1.18E-11	1.43E-11	2.93E-10	3.29E-10				
non-phosphate phosphorous	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
phosphorus	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
selenium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silicon	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silver	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
sulfates	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
thallium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
vanadium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
zinc	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Diesel PM	3.00E-04	3.00E-04	4.34E-08	5.45E-08	5.24E-08	3.62E-08	2.75E-09	1.02E-09	2.90E-10	1.76E-10	3.91E-10	1.90E-07	1.91E-07				
		TOTAL	4.7E-08	6.0E-08	5.9E-08	4.1E-08	3.2E-09	3.0E-08	3.0E-08	3.0E-08	3.0E-08	2.4E-07	3.3E-07				

NA = Not Available
NC = Not Calculated
Source: CDM Smith, 2017

ug/m^3 = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Table 3-2.4
RAGS F Risk Calculation for LAX Landside Access Modernization Program, 2017-2027 Mitigated Construction and 2024-2086 Operations - Lifetime Exposure - Off-Airport Worker
(Based on Peak Location of Commercial Cancer Risks[1])

Exposure Parameters	Adult Worker
Exposure Time	8 (hrs/day)
Exposure Duration	25 (years)
Exposure Frequency	250 (days/year)
Averaging Time (non-carcinogenic	219000 (hrs)
Averaging Time (carcinogenic)	613200 (hrs)

	Concentration at Location w/Maximum Risk (ug/m^3)																				
	Construction							Operation by Year													
TAC	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035		
1,2,4-trimethylbenzene	3.28E-07	3.44E-05	1.42E-04	2.53E-04	3.91E-04	2.37E-04	1.01E-05	3.28E-06	0.00E+00	0.00E+00	8.20E-08	2.64E-02	2.66E-02	2.66E-02	2.67E-02	2.68E-02	2.69E-02	2.70E-02	2.71E-02	2.73E-02	2.74E-02
1,3-butadiene	1.84E-07	1.94E-05	7.98E-05	1.42E-04	2.19E-04	1.33E-04	5.66E-06	1.84E-06	0.00E+00	0.00E+00	4.60E-08	1.48E-02	1.49E-02	1.50E-02	1.50E-02	1.51E-02	1.51E-02	1.52E-02	1.53E-02	1.53E-02	1.54E-02
2,2,4-trimethylpentane	7.80E-07	8.23E-05	3.37E-04	6.02E-04	9.29E-04	5.64E-04	2.40E-05	7.80E-06	0.00E+00	0.00E+00	1.95E-07	6.29E-02	6.31E-02	6.33E-02	6.35E-02	6.37E-02	6.40E-02	6.42E-02	6.44E-02	6.48E-02	6.51E-02
acetaldehyde	9.60E-08	1.01E-05	4.15E-05	7.41E-05	1.14E-04	6.94E-05	2.95E-06	9.60E-07	0.00E+00	0.00E+00	2.40E-08	7.74E-03	7.76E-03	7.79E-03	7.82E-03	7.84E-03	7.87E-03	7.90E-03	7.93E-03	7.98E-03	8.01E-03
acrolein	4.43E-08	4.64E-06	1.90E-05	3.39E-05	5.24E-05	3.18E-05	1.36E-06	4.40E-07	0.00E+00	0.00E+00	1.10E-08	3.55E-03	3.58E-03	3.59E-03	3.61E-03	3.62E-03	3.63E-03	3.65E-03	3.66E-03	3.68E-03	3.67E-03
benzene	3.21E-06	2.23E-04	4.33E-04	8.80E-04	1.17E-03	6.80E-04	2.57E-05	8.36E-06	0.00E+00	0.00E+00	2.09E-07	6.74E-02	6.76E-02	6.76E-02	6.81E-02	6.83E-02	6.85E-02	6.88E-02	6.90E-02	6.93E-02	6.99E-02
cumene	4.00E-09	4.22E-07	1.75E-06	3.09E-06	4.77E-06	2.89E-06	1.23E-07	4.00E-08	0.00E+00	0.00E+00	1.00E-09	3.22E-04	3.23E-04	3.25E-04	3.26E-04	3.27E-04	3.28E-04	3.29E-04	3.30E-04	3.31E-04	3.32E-04
cyclohexane	2.08E-07	2.19E-05	9.00E-05	1.60E-04	2.48E-04	1.50E-04	6.40E-06	2.08E-06	0.00E+00	0.00E+00	5.20E-08	1.68E-02	1.68E-02	1.69E-02	1.70E-02	1.71E-02	1.71E-02	1.72E-02	1.73E-02	1.73E-02	1.74E-02
ethylbenzene	5.88E-07	4.57E-05	2.12E-04	3.29E-04	4.91E-04	8.68E-04	1.09E-05	1.31E-05	0.00E+00	9.28E-07	8.87E-06	2.87E-02	2.88E-02	2.89E-02	2.90E-02	2.91E-02	2.92E-02	2.94E-02	2.95E-02	2.96E-02	2.97E-02
ethylene	2.16E-08	2.27E-06	9.32E-06	1.66E-05	2.57E-05	1.56E-05	6.63E-07	2.16E-07	0.00E+00	0.00E+00	5.39E-09	1.74E-03	1.74E-03	1.75E-03	1.76E-03	1.76E-03	1.77E-03	1.77E-03	1.78E-03	1.80E-03	1.80E-03
formaldehyde	5.38E-07	5.65E-05	2.32E-04	4.14E-04	6.39E-04	3.87E-04	1.65E-05	5.36E-06	0.00E+00	0.00E+00	1.34E-07	4.32E-02	4.33E-02	4.35E-02	4.36E-02	4.38E-02	4.40E-02	4.41E-02	4.43E-02	4.46E-02	4.47E-02
hexane, n-	5.40E-07	5.70E-05	2.34E-04	4.17E-04	6.43E-04	3.90E-04	1.66E-05	5.40E-06	0.00E+00	0.00E+00	1.35E-07	4.35E-02	4.37E-02	4.38E-02	4.40E-02	4.41E-02	4.43E-02	4.46E-02	4.47E-02	4.49E-02	4.52E-02
isoprene, except from vegetative emission sources	4.80E-08	5.06E-06	2.08E-05	3.70E-05	5.73E-05	3.47E-05	1.48E-06	4.80E-07	0.00E+00	0.00E+00	1.20E-08	3.87E-03	3.88E-03	3.90E-03	3.91E-03	3.92E-03	3.94E-03	3.95E-03	3.96E-03	3.98E-03	3.99E-03
methyl alcohol	4.00E-08	4.22E-06	1.73E-05	3.09E-05	4.77E-05	2.89E-05	1.23E-06	4.00E-07	0.00E+00	0.00E+00	1.00E-08	3.22E-03	3.23E-03	3.25E-03	3.26E-03	3.27E-03	3.28E-03	3.29E-03	3.30E-03	3.31E-03	3.32E-03
methyl ethyl ketone	8.00E-09	8.44E-07	3.46E-06	6.17E-06	9.53E-06	5.78E-06	2.46E-07	8.00E-08	0.00E+00	0.00E+00	2.00E-09	6.45E-04	6.47E-04	6.49E-04	6.51E-04	6.54E-04	6.56E-04	6.58E-04	6.60E-04	6.63E-04	6.65E-04
naphthalene	1.60E-08	1.69E-06	6.93E-06	1.23E-05	1.91E-05	1.16E-05	4.93E-07	1.60E-07	0.00E+00	0.00E+00	4.00E-09	1.29E-03	1.29E-03	1.30E-03	1.30E-03	1.31E-03	1.31E-03	1.32E-03	1.32E-03	1.33E-03	1.33E-03
propionaldehyde	1.20E-08	1.27E-06	5.19E-06	9.26E-06	1.43E-05	8.67E-06	3.69E-07	1.20E-07	0.00E+00	0.00E+00	3.00E-09	9.67E-04	9.70E-04	9.74E-04	9.77E-04	9.81E-04	9.84E-04	9.87E-04	9.91E-04	9.94E-04	9.97E-04
propylene	1.04E-06	1.09E-04	4.48E-04	7.99E-04	1.23E-03	7.48E-04	3.19E-05	1.04E-05	0.00E+00	0.00E+00	2.59E-07	8.35E-02	8.38E-02	8.41E-02	8.44E-02	8.47E-02	8.50E-02	8.52E-02	8.55E-02	8.59E-02	8.64E-02
styrene	4.00E-08	4.22E-06	1.73E-05	3.09E-05	4.77E-05	2.89E-05	1.23E-06	4.00E-07	0.00E+00	0.00E+00	1.00E-08	3.22E-03	3.23E-03	3.25E-03	3.26E-03	3.27E-03	3.28E-03	3.29E-03	3.30E-03	3.31E-03	3.32E-03
toluene	2.59E-06	2.28E-04	1.00E-03	1.65E-03	2.51E-03	3.11E-03	5.96E-04	4.59E-05	0.00E+00	2.59E-06	2.44E-05	1.57E-01	1.58E-01	1.58E-01	1.59E-01	1.60E-01	1.60E-01	1.61E-01	1.61E-01	1.62E-01	1.63E-01
xylene (total)	2.00E-06	1.89E-04	7.97E-04	1.34E-03	2.09E-03	2.16E-03	5.01E-05	3.16E-05	0.00E+00	1.49E-06	1.42E-05	1.31E-01	1.32E-01	1.32E-01	1.33E-01	1.33E-01	1.34E-01	1.34E-01	1.35E-01	1.35E-01	1.36E-01
aluminum	1.48E-04	2.48E-03	7.82E-03	1.57E-02	2.07E-02	2.78E-02	5.49E-04	2.76E-04	1.16E-04	1.14E-05	1.18E-04	8.55E-04	2.22E-03	3.98E-03	4.94E-03	6.30E-03	7.66E-03	9.03E-03	1.04E-02	1.17E-02	1.31E-02
ammonium ion	2.48E-07	4.49E-06	1.48E-05	2.97E-05	4.02E-05	5.04E-05	1.06E-06	5.21E-07	1.95E-07	2.13E-08	2.21E-07	2.23E-03	6.08E-03	9.76E-03	1.35E-02	1.72E-02	2.09E-02	2.46E-02	2.83E-02	3.22E-02	3.59E-02
antimony	2.93E-08	4.92E-07	1.52E-06	3.14E-06	4.13E-06	5.56E-06	1.10E-07	5.51E-08	2.32E-08	2.28E-09	2.36E-08	8.94E-07	1.41E-06	2.28E-06	3.14E-06	4.01E-06	4.87E-06	5.74E-06	6.61E-06	7.47E-06	8.34E-06
arsenic	3.74E-08	6.77E-07	2.95E-06	4.40E-06	5.99E-06	7.54E-06	1.62E-07	7.79E-08	2.99E-08	2.98E-09	3.03E-08	1.24E-07	5.77E-07	7.85E-07	1.01E-06	1.23E-06	1.46E-06	1.67E-06	1.89E-06	2.11E-06	2.33E-06
barium	3.65E-06	2.91E-04	1.46E-03	2.51E-03	4.39E-03	3.07E-03	1.33E-04	4.80E-05	2.23E-06	6.61E-07	3.91E-06	1.97E-04	5.00E-04	8.03E-04	1.11E-03	1.41E-03	1.71E-03	2.01E-03	2.32E-03	2.62E-03	2.92E-03
bromine	5.57E-08	1.28E-06	4.60E-06	8.64E-06	1.28E-05	1.38E-05	3.74E-07	1.63E-07	4.37E-08	4.97E-08	3.63E-07	6.99E-07	1.03E-06	1.36E-06	1.70E-06	2.03E-06	2.36E-06	2.70E-06	3.03E-06	3.37E-06	3.70E-06
cadmium	8.01E-07	1.01E-05	3.13E-06	6.45E-06	8.48E-06	1.14E-05	2.25E-07	1.13E-07	4.76E-08	4.68E-09	4.84E-08	2.24E-06	3.62E-06	5.84E-06	8.07E-06	1.03E-05	1.25E-05	1.47E-05	1.69E-05	1.91E-05	2.13E-05
chlorine	6.68E-06	1.50E-04	5.27E-04	9.93E-04	1.49E-03	1.58E-03	4.22E-05	1.86E-05	5.29E-06	6.03E-07	5.50E-06	3.17E-05	4.88E-05	6.94E-05	8.23E-05	9.91E-05	1.16E-04	1.33E-04	1.50E-04	1.67E-04	1.83E-04
chromium (VI)	2.28E-08	6.42E-07	2.62E-06	4.82E-06	7.57E-06	6.98E-06	2.20E-07	8.93E-08	1.72E-08	2.19E-08	1.93E-08	2.21E-07	5.51E-07	8.80E-07	1.21E-06	1.54E-06	1.87E-06	2.20E-06	2.52E-06	2.85E-06	3.18E-06
cobalt	2.08E-07	3.65E-06	1.16E-05	2.33E-05	3.12E-05	4.06E-05	8.46E-07	4.17E-07	1.65E-07	1.62E-08	1.67E-07	3.01E-07	6.45E-07	7.89E-07	1.03E-06	1.28E-06	1.52E-06	1.76E-06	2.01E-06	2.25E-06	2.50E-06
copper	6.77E-07	6.04E-05	3.09E-04	5.25E-04	9.23E-04	6.38E-04	2.80E-05	1.01E-05	4.03E-07	1.16E-07	7.85E-07	4.16E-04	1.05E-03	1.69E-03	2.33E-03	2.97E-03	3.61E-03	4.25E-03	4.89E-03	5.53E-03	6.17E-03
lead	1.08E-06	1.86E-05	5.86E-05	1.20E-04	1.60E-04	2.10E-04	4.35E-06	2.11E-06	8.58E-07	8.62E-08	8.75E-07	1.29E-06	3.31E-06	5.34E-06	7.37E-06	9.40E-06	1.14E-05	1.35E-05

Table 3-3.1
RAGS F Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project - Operations - with 2024-2027 Unmitigated Construction - Lifetime Exposure - Adult Resident
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	Residential Adult
Exposure Time	24 (hrs/day)
Exposure Duration	70 (years)
Exposure Frequency	350 (days/year)
Averaging Time (non-carcinogenic)	613200 (hrs)
Averaging Time (carcinogenic)	613200 (hrs)

	Concentration at Location w/Maximum Risk (ug/m^3)															
	Construction				Operation by Year											
TAC	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
1,2,4-trimethylbenzene	3.77E-06	0.00E+00	0.00E+00	8.20E-08	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.27E-02	1.27E-02	1.27E-02	1.27E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02
1,3-butadiene	2.12E-06	0.00E+00	0.00E+00	4.60E-08	7.05E-03	7.07E-03	7.08E-03	7.09E-03	7.11E-03	7.12E-03	7.14E-03	7.15E-03	7.16E-03	7.18E-03	7.19E-03	7.21E-03
2,2,4-trimethylpentane	8.97E-06	0.00E+00	0.00E+00	1.95E-07	2.99E-02	3.00E-02	3.00E-02	3.01E-02	3.01E-02	3.02E-02	3.03E-02	3.03E-02	3.04E-02	3.04E-02	3.05E-02	3.05E-02
acetaldehyde	1.10E-06	0.00E+00	0.00E+00	2.40E-08	3.68E-03	3.69E-03	3.69E-03	3.70E-03	3.71E-03	3.72E-03	3.72E-03	3.73E-03	3.74E-03	3.74E-03	3.75E-03	3.76E-03
acrolein	5.06E-07	0.00E+00	0.00E+00	1.10E-08	1.69E-03	1.69E-03	1.69E-03	1.70E-03	1.70E-03	1.70E-03	1.71E-03	1.71E-03	1.72E-03	1.72E-03	1.72E-03	1.72E-03
benzene	9.61E-06	0.00E+00	0.00E+00	2.09E-07	3.20E-02	3.21E-02	3.22E-02	3.22E-02	3.22E-02	3.23E-02	3.24E-02	3.24E-02	3.25E-02	3.25E-02	3.27E-02	3.27E-02
cumene	4.60E-08	0.00E+00	0.00E+00	1.00E-09	1.53E-04	1.54E-04	1.54E-04	1.54E-04	1.55E-04	1.55E-04	1.55E-04	1.55E-04	1.56E-04	1.56E-04	1.56E-04	1.57E-04
cyclohexane	2.39E-06	0.00E+00	0.00E+00	5.20E-08	7.97E-03	7.99E-03	8.00E-03	8.02E-03	8.04E-03	8.05E-03	8.07E-03	8.08E-03	8.10E-03	8.11E-03	8.13E-03	8.15E-03
ethylbenzene	1.43E-05	0.00E+00	6.96E-07	7.98E-06	1.36E-02	1.37E-02	1.37E-02	1.37E-02	1.38E-02	1.38E-02	1.38E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02
ethylene	2.48E-05	0.00E+00	0.00E+00	5.39E-07	8.26E-02	8.28E-02	8.30E-02	8.31E-02	8.33E-02	8.35E-02	8.36E-02	8.38E-02	8.39E-02	8.41E-02	8.43E-02	8.44E-02
formaldehyde	6.16E-06	0.00E+00	0.00E+00	1.34E-07	2.05E-02	2.06E-02	2.06E-02	2.07E-02	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02	2.09E-02	2.10E-02
hexane, n-isoperne, except from vegetative emission sources	6.21E-06	0.00E+00	0.00E+00	1.35E-07	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02	2.09E-02	2.10E-02	2.10E-02	2.11E-02	2.11E-02	2.11E-02
methyl alcohol	4.60E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03	1.56E-03	1.56E-03	1.57E-03
methyl ethyl ketone	9.20E-08	0.00E+00	0.00E+00	2.00E-09	3.07E-04	3.07E-04	3.08E-04	3.08E-04	3.09E-04	3.10E-04	3.10E-04	3.11E-04	3.11E-04	3.12E-04	3.13E-04	3.13E-04
naphthalene	1.84E-07	0.00E+00	0.00E+00	4.00E-09	6.13E-04	6.14E-04	6.16E-04	6.17E-04	6.18E-04	6.19E-04	6.21E-04	6.22E-04	6.23E-04	6.24E-04	6.25E-04	6.27E-04
propionaldehyde	1.38E-07	0.00E+00	0.00E+00	3.00E-09	4.60E-04	4.61E-04	4.62E-04	4.63E-04	4.64E-04	4.65E-04	4.66E-04	4.67E-04	4.68E-04	4.69E-04	4.70E-04	
propylene	1.19E-05	0.00E+00	0.00E+00	2.59E-07	3.97E-02	3.98E-02	3.99E-02	3.99E-02	4.00E-02	4.01E-02	4.02E-02	4.03E-02	4.03E-02	4.04E-02	4.05E-02	4.06E-02
styrene	4.60E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03	1.56E-03	1.56E-03	1.57E-03
toluene	5.08E-05	0.00E+00	1.94E-06	2.24E-05	7.47E-02	7.48E-02	7.50E-02	7.51E-02	7.53E-02	7.54E-02	7.55E-02	7.57E-02	7.58E-02	7.60E-02	7.61E-02	7.63E-02
xylene (total)	3.51E-05	0.00E+00	1.12E-06	1.31E-05	6.24E-02	6.25E-02	6.26E-02	6.26E-02	6.29E-02	6.30E-02	6.31E-02	6.33E-02	6.34E-02	6.35E-02	6.36E-02	6.38E-02
aluminum	3.15E-04	1.08E-04	1.04E-05	1.09E-04	5.63E-04	2.16E-03	3.75E-03	5.34E-03	6.94E-03	8.53E-03	1.01E-02	1.17E-02	1.33E-02	1.49E-02	1.65E-02	1.81E-02
ammonium ion	6.04E-07	1.80E-07	1.77E-08	1.85E-07	1.53E-05	5.88E-05	1.02E-04	1.46E-04	1.89E-04	2.33E-04	2.76E-04	3.20E-04	3.63E-04	4.07E-04	4.50E-04	4.94E-04
antimony	6.29E-08	2.17E-08	2.09E-09	2.19E-08	3.58E-07	1.37E-06	2.39E-06	3.40E-06	4.41E-06	5.43E-06	6.44E-06	7.45E-06	8.47E-06	9.48E-06	1.05E-05	1.15E-05
arsenic	9.01E-08	2.75E-08	2.74E-09	2.80E-08	9.12E-08	3.47E-07	6.03E-07	8.59E-07	1.12E-06	1.37E-06	1.63E-06	1.88E-06	2.14E-06	2.40E-06	2.65E-06	2.91E-06
barium	6.15E-05	1.63E-06	6.49E-07	3.27E-06	1.30E-04	4.85E-04	8.39E-04	1.19E-03	1.55E-03	1.90E-03	2.26E-03	2.61E-03	2.97E-03	3.32E-03	3.68E-03	4.03E-03
bromine	1.88E-07	4.03E-08	4.25E-09	4.20E-08	2.41E-07	6.84E-07	1.13E-06	1.57E-06	2.01E-06	2.45E-06	2.90E-06	3.34E-06	3.78E-06	4.22E-06	4.67E-06	5.11E-06
cadmium	1.29E-07	4.45E-08	4.29E-09	4.49E-08	1.58E-08	6.05E-08	1.05E-07	1.50E-07	1.95E-07	2.39E-07	2.84E-07	3.29E-07	3.74E-07	4.18E-07	4.63E-07	5.08E-07
chlorine	2.12E-05	4.86E-06	4.83E-07	5.03E-06	2.12E-05	4.82E-05	7.52E-05	1.02E-04	1.29E-04	1.56E-04	1.83E-04	2.10E-04	2.37E-04	2.64E-04	2.91E-04	3.18E-04
chromium (VI)	1.09E-07	1.55E-08	2.04E-09	1.77E-08	1.04E-07	5.34E-07	9.22E-07	1.31E-06	1.70E-06	2.09E-06	2.47E-06	2.86E-06	3.25E-06	3.64E-06	4.03E-06	4.41E-06
cobalt	4.72E-07	1.54E-07	1.49E-08	1.55E-07	2.00E-07	5.38E-07	8.75E-07	1.21E-06	1.55E-06	1.89E-06	2.22E-06	2.56E-06	2.90E-06	3.24E-06	3.57E-06	3.91E-06
copper	1.29E-05	2.72E-07	1.30E-07	6.23E-07	2.73E-05	1.02E-04	1.76E-04	2.50E-04	3.25E-04	3.99E-04	4.73E-04	5.48E-04	6.22E-04	6.97E-04	7.71E-04	8.45E-04
lead	2.42E-06	8.00E-07	7.76E-08	8.10E-07	8.46E-07	3.22E-06	5.60E-06	7.97E-06	1.03E-05	1.27E-05	1.51E-05	1.75E-05	1.99E-05	2.22E-05	2.46E-05	2.70E-05
manganese	5.68E-06	1.33E-06	1.44E-07	1.39E-06	8.22E-06	3.09E-05	5.35E-05	7.61E-05	9.88E-05	1.21E-04	1.44E-04	1.67E-04	1.89E-04	2.12E-04	2.35E-04	2.57E-04
mercury	6.62E-08	2.28E-08	2.20E-09	2.30E-08	4.74E-08	1.82E-07	3.16E-07	4.50E-07	5.84E-07	7.18E-07	8.52E-07	9.87E-07	1.12E-06	1.26E-06	1.39E-06	1.52E-06
nickel	9.96E-07	9.32E-08	1.50E-08	1.14E-07	1.67E-06	6.02E-06	1.04E-05	1.47E-05	1.91E-05	2.34E-05	2.78E-05	3.21E-05	3.65E-05	4.08E-05	4.52E-05	4.95E-05
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
phosphorus	6.88E-06	2.26E-06	2.18E-07	2.29E-06	1.49E-05	5.72E-05	9.95E-05	1.42E-04	1.84E-04	2.26E-04	2.69E-04	3.11E-04	3.53E-04	3.95E-04	4.38E-04	4.80E-04
selenium	3.65E-08	3.62E-09	5.30E-10	4.45E-09	6.60E-08	2.47E-07	4.29E-07	6.10E-07	7.91E-07	9.72E-07	1.15E-06	1.33E-06	1.52E-06	1.70E-06	1.88E-06	2.06E-06
silicon	8.81E-04	2.79E-04	2.75E-05	2.83E-04	1.75E-03	6.71E-03	1.17E-02	1.66E-02	2.16E-02	2.65E-02	3.15E-02	3.64E-02	4.14E-02	4.63E-02	5.13E-02	5.62E-02
silver	3.31E-08	1.14E-08	1.10E-09	1.15E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
sulfates	7.84E-05	7.05E-06	9.82E-07	8.14E-06	1.63E-04	4.09E-04	6.56E-04	9.02E-04	1.15E-03	1.39E-03	1.64E-03	1.89E-03	2.13E-03	2.38E-03	2.63E-03	2.87E-03
thallium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.10E-08	8.07E-08	1.40E-07	2.00E-07	2.60E-07	3.19E-07	3.79E-07	4.39E-07	4.98E-07	5.58E-07	6.17E-07	6.77E-07
vanadium	1.80E-06	3.84E-07	4.30E-08	4.07E-07	1.88E-06	7.05E-06	1.22E-05	1.74E-05	2.25E-05	2.77E-05	3.29E-05	3.81E-05	4.32E-05	4.84E-05	5.36E-05	5.87E-05
zinc	3.89E-06	7.60E-07	7.57E-08	8.27E-07	8.53E-06	3.21E-05	5.57E-05	7.93E-05	1.03E-04	1.27E-04	1.50E-04	1.74E-04	1.97E-04	2.21E-04	2.45E-04	2.68E-04
Diesel PM	1.18E-03	1.30E-04	3.00E-05	1.30E-04	7.17E-06	2.16E-05	3.61E-05	5.05E-05	6.50E-05	7.94E-05	9.39E-05	1.08E-04	1.23E-04	1.37E-04	1.52E-04	1.66E-04

[1] Residential Maximum Grid No.
NA = Not Available
NC = Not Calculated
Source: CDM Smith, 2017

Table 3-3.2
RAGS F Risk Calculation for LAX Landside Access Modernization Program, 2017-2027 Mitigated Construction and 2024-2086 Operations - Lifetime Exposure - Off-Airport Worker
(Based on Peak Location of Commercial Cancer Risks[1])

RAGS F Equations
EC = (CA x ET x EF x ED) / (AT)
Risk = IUR x EC
HQ = EC / REL
Where: HQ = Hazard Quotient; EC = Exposure Concentration; IUR = Inhalation Unit Risk; AT = Averaging Time (for cancer or non-cancer); REL = Reference Exposure Level

	Toxicity Criteria		Cancer Risk to Adult Resident																		Cancer Risks	
	EPA Inhalation Unit Risk	CalEPA Inhalation Unit Risk	Construction				Construction and Operations										Operation				Ops	Ops	Cancer Risk to 25-year	Cancer Risk to 40-year
TAC	(ug/m^3)$^{-1}$	(ug/m^3)$^{-1}$	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035 - 2041	2035 - 2056	Worker	Worker
																					18			
1,2,4-trimethylbenzene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	3.00E-05	1.70E-04	1.02E-13	1.08E-11	4.41E-11	7.87E-11	1.23E-10	7.37E-11	3.14E-12	8.22E-09	8.23E-09	8.28E-09	8.31E-09	8.34E-09	8.37E-09	8.39E-09	8.42E-09	8.45E-09	8.48E-09	8.51E-09	5.98E-08	1.88E-07	1.52E-07	2.80E-07
2,2,4-trimethylpentane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	2.20E-06	2.70E-06	8.49E-16	8.92E-14	3.66E-13	6.52E-13	1.01E-12	6.11E-13	2.60E-14	6.81E-11	6.84E-11	6.86E-11	6.88E-11	6.91E-11	6.93E-11	6.96E-11	6.98E-11	7.00E-11	7.03E-11	7.05E-11	4.95E-10	1.56E-09	1.26E-09	2.32E-09
acrolein	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
benzene	7.80E-06	2.90E-05	3.03E-13	2.11E-11	4.09E-11	6.43E-11	1.10E-10	6.43E-11	2.45E-12	6.37E-09	6.39E-09	6.42E-09	6.44E-09	6.46E-09	6.48E-09	6.51E-09	6.53E-09	6.55E-09	6.57E-09	6.60E-09	4.63E-08	1.46E-07	1.18E-07	2.17E-07
cumene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cyclohexane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	2.50E-06	2.50E-06	4.79E-15	3.72E-13	1.73E-12	2.68E-12	4.01E-12	7.08E-12	8.93E-14	2.34E-10	2.35E-10	2.36E-10	2.36E-10	2.37E-10	2.38E-10	2.39E-10	2.40E-10	2.40E-10	2.41E-10	2.42E-10	1.70E-09	5.34E-09	4.33E-09	7.98E-09
ethylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	1.30E-05	6.00E-06	1.05E-14	1.11E-12	4.54E-12	8.09E-12	1.25E-11	7.58E-12	3.23E-13	8.45E-10	8.48E-10	8.51E-10	8.54E-10	8.57E-10	8.60E-10	8.63E-10	8.66E-10	8.69E-10	8.72E-10	8.75E-10	6.14E-09	1.93E-08	1.56E-08	2.88E-08
hexane, n-isoperne, except from vegetative emission sources	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
naphthalene	3.40E-05	3.40E-05	1.77E-15	1.87E-13	7.67E-13	1.37E-12	2.11E-12	1.28E-12	5.46E-14	1.41E-10	1.43E-10	1.44E-10	1.44E-10	1.45E-10	1.45E-10	1.46E-10	1.46E-10	1.47E-10	1.47E-10	1.48E-10	1.04E-09	3.27E-09	2.65E-09	4.87E-09
propionaldehyde	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
propylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
styrene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
toluene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
xylene (total)	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
aluminum	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ammonium ion	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
antimony	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
arsenic	4.30E-03	3.30E-03	8.02E-12	1.69E-11	2.74E-11	4.01E-11	5.04E-11	6.20E-11	7.36E-11	8.52E-11	9.67E-11	1.08E-10	1.20E-10	2.50E-09	7.76E-09	3.19E-09	8.45E-09	3.87E-09	8.74E-09	4.55E-09	2.91E-08	9.16E-08	7.41E-08	1.36E-07
barium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
bromine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cadmium	1.80E-03	4.20E-03	8.34E-12	6.04E-12	6.30E-12	1.12E-11	1.12E-11	1.38E-11	1.63E-11	1.89E-11	2.15E-11	2.41E-11	2.66E-11	5.55E-10	1.72E-09	7.19E-10	1.89E-09	8.74E-10	1.97E-09	1.03E-09	6.57E-09	2.07E-08	1.67E-08	3.07E-08
chlorine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
chromium (VI)	1.20E-02	1.50E-01	5.24E-10	1.13E-09	1.90E-09	2.73E-09	3.49E-09	4.29E-09	5.08E-09	5.88E-09	6.68E-09	7.47E-09	8.27E-09	1.72E-07	5.35E-07	2.20E-07	5.82E-07	2.67E-07	6.02E-07	3.14E-07	2.02E-06	6.37E-06	5.11E-06	9.38E-06
cobalt	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
copper	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
lead	NA	NA	1.20E-05	5.36E-13	6.61E-13	9.33E-13	1.44E-12	1.70E-12	2.09E-12	2.48E-12	2.87E-12	3.26E-12	3.65E-12	4.04E-12	8.43E-11	2.62E-10	1.08E-10	2.85E-10	1.31E-10	2.91E-10	1.52E-10	9.61E-10	3.03E-09	2.45E-09	4.50E-09
manganese	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
mercury	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
nickel	2.40E-04	2.60E-04	9.50E-12	2.18E-11	3.70E-11	5.28E-11	6.79E-11	8.34E-11	9.89E-11	1.14E-10	1.30E-10	1.45E-10	1.61E-10	3.35E-09	1.04E-08	4.27E-09	1.13E-08	5.19E-09	1.17E-08	6.13E-09	3.89E-08	1.23E-07	9.91E-08	1.82E-07
non-phosphate phosphorous	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
phosphorus	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
selenium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silicon	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silver	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
sulfates	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
thallium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
vanadium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
zinc	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Diesel PM	3.00E-04	3.00E-04	9.78E-11	3.04E-09	1.65E-08	2.84E-08	3.23E-08	2.71E-08	7.83E-10	3.04E-10	7.49E-11	5.06E-11	1.15E-10	7.14E-11	8.67E-11	1.02E-10	1.17E-10	1.33E-10	1.48E-10	1.63E-10	1.25E-09	3.93E-09	1.11E-07	1.13E-07
		TOTAL	1.1E-10	3.4E-09	1.8E-08	3.1E-08	3.6E-08	3.1E-08	9.0E-10	1.6E-08	1.6E-08	1.6E-08	1.7E-08	1.7E-08	1.7E-08	1.7E-08	1.8E-08	1.8E-08	1.8E-08	1.8E-08	1.3E-07	4.1E-07	4.4E-07	7.8E-07

NA = Not Available
NC = Not Calculated
Source: CDM Smith, 2017
ug/m^3 = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Table 3-3.1
RAGS F Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project - Operations - with 2024-2027 Unmitigated Construction - Lifetime Exposure - Adult Resident
(Based on Peak Location of Residential Cancer Risks[1])

RAGS F Equations
EC = (CA x ET x EF x ED) / (AT)
Risk = IUR x EC
HQ = EC / REL
Where: HQ = Hazard Quotient; EC = Exposure Concentration; IUR = Inhalation Unit Risk; AT = Averaging Time (for cancer or non-cancer); REL = Reference Exposure Level

	Toxicity Criteria		Cancer Risk to Adult Resident																Cancer Risks	
	EPA Inhalation Unit Risk	CalEPA Inhalation Unit Risk	Construction and Operations				Operation									Ops	Ops	Cancer Risk to 30-year	Cancer Risk to 70-year
TAC	(ug/m^3)$^{-1}$	(ug/m^3)$^{-1}$	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035 - 2053	2035 - 2093	Resident	Resident
														11			
1,2,4-trimethylbenzene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	3.00E-05	1.70E-04	1.64E-08	1.65E-08	1.65E-08	1.65E-08	1.66E-08	1.66E-08	1.66E-08	1.67E-08	1.67E-08	1.67E-08	1.67E-08	3.19E-07	9.90E-07	5.01E-07	1.17E-06
2,2,4-trimethylpentane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	2.20E-06	2.70E-06	1.36E-10	1.36E-10	1.37E-10	1.37E-10	1.37E-10	1.37E-10	1.38E-10	1.38E-10	1.38E-10	1.39E-10	1.39E-10	2.64E-09	8.20E-09	4.15E-09	9.72E-09
acrolein	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
benzene	7.80E-06	2.90E-05	1.27E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.29E-08	1.29E-08	1.29E-08	1.29E-08	1.30E-08	1.30E-08	2.47E-07	7.67E-07	3.89E-07	9.06E-07
cumene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cyclohexane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	2.50E-06	2.50E-06	4.68E-10	4.69E-10	4.69E-10	4.70E-10	4.71E-10	4.72E-10	4.73E-10	4.74E-10	4.75E-10	4.76E-10	4.77E-10	9.07E-09	2.82E-08	1.43E-08	3.34E-08
ethylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	1.30E-05	6.00E-06	1.69E-09	1.69E-09	1.70E-09	1.70E-09	1.70E-09	1.71E-09	1.71E-09	1.71E-09	1.72E-09	1.72E-09	1.72E-09	3.28E-08	1.02E-07	5.15E-08	1.21E-07
hexane, n-isoperne, except from vegetative emission sources	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
naphthalene	3.40E-05	3.40E-05	2.86E-10	2.87E-10	2.87E-10	2.87E-10	2.88E-10	2.88E-10	2.89E-10	2.90E-10	2.90E-10	2.91E-10	2.91E-10	5.54E-09	1.72E-08	8.72E-09	2.04E-08
propionaldehyde	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
propylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
styrene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Table 3-3.3
RAGS F Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project - Operations - with 2024-2027 Unmitigated Construction - Lifetime Exposure - School Child
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	School Child
Exposure Time	8 (hrs/day)
Exposure Duration	6 (years)
Exposure Frequency	200 (days/year)
Averaging Time (non-carcinogenic)	52560 (hrs)
Averaging Time (carcinogenic)	613200 (hrs)

	Concentration at Location w/Maximum Risk (ug/m³)															
	Construction				Operation by Year											
TAC	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
1,2,4-trimethylbenzene	3.77E-06	0.00E+00	0.00E+00	8.20E-08	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.27E-02	1.27E-02	1.27E-02	1.27E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02
1,3-butadiene	2.12E-06	0.00E+00	0.00E+00	4.60E-08	7.05E-03	7.07E-03	7.08E-03	7.09E-03	7.11E-03	7.12E-03	7.14E-03	7.15E-03	7.16E-03	7.18E-03	7.19E-03	7.21E-03
2,2,4-trimethylpentane	8.97E-06	0.00E+00	0.00E+00	1.95E-07	2.99E-02	3.00E-02	3.00E-02	3.01E-02	3.01E-02	3.02E-02	3.03E-02	3.03E-02	3.04E-02	3.04E-02	3.05E-02	3.05E-02
acetaldehyde	1.10E-06	0.00E+00	0.00E+00	2.40E-08	3.68E-03	3.69E-03	3.69E-03	3.70E-03	3.71E-03	3.72E-03	3.72E-03	3.73E-03	3.74E-03	3.74E-03	3.75E-03	3.76E-03
acrolein	5.06E-07	0.00E+00	0.00E+00	1.10E-08	1.69E-03	1.69E-03	1.69E-03	1.70E-03	1.70E-03	1.71E-03	1.71E-03	1.71E-03	1.72E-03	1.72E-03	1.72E-03	1.72E-03
benzene	9.61E-06	0.00E+00	0.00E+00	2.09E-07	3.20E-02	3.21E-02	3.22E-02	3.22E-02	3.23E-02	3.24E-02	3.24E-02	3.25E-02	3.25E-02	3.26E-02	3.27E-02	3.27E-02
cumene	4.60E-08	0.00E+00	0.00E+00	1.00E-09	1.53E-04	1.54E-04	1.54E-04	1.54E-04	1.55E-04	1.55E-04	1.55E-04	1.55E-04	1.56E-04	1.56E-04	1.56E-04	1.57E-04
cyclohexane	2.39E-06	0.00E+00	0.00E+00	5.20E-08	7.97E-03	7.99E-03	8.00E-03	8.02E-03	8.04E-03	8.05E-03	8.07E-03	8.08E-03	8.10E-03	8.11E-03	8.13E-03	8.15E-03
ethylbenzene	1.43E-05	0.00E+00	6.96E-07	7.98E-06	1.36E-02	1.37E-02	1.37E-02	1.37E-02	1.38E-02	1.38E-02	1.38E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02
ethylene	2.48E-05	0.00E+00	0.00E+00	5.39E-07	8.26E-02	8.28E-02	8.30E-02	8.31E-02	8.33E-02	8.35E-02	8.36E-02	8.38E-02	8.39E-02	8.41E-02	8.43E-02	8.44E-02
formaldehyde	6.16E-06	0.00E+00	0.00E+00	1.34E-07	2.05E-02	2.06E-02	2.07E-02	2.07E-02	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02	2.09E-02	2.09E-02
hexane, n-	6.21E-06	0.00E+00	0.00E+00	1.35E-07	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02	2.09E-02	2.10E-02	2.10E-02	2.11E-02	2.11E-02	2.11E-02
isoprene, except from vegetative emission sources	5.52E-07	0.00E+00	0.00E+00	1.20E-08	1.84E-03	1.84E-03	1.85E-03	1.85E-03	1.85E-03	1.86E-03	1.86E-03	1.87E-03	1.87E-03	1.87E-03	1.88E-03	1.88E-03
methyl alcohol	4.60E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.57E-03
methyl ethyl ketone	9.20E-08	0.00E+00	0.00E+00	2.00E-09	3.07E-04	3.07E-04	3.08E-04	3.08E-04	3.09E-04	3.10E-04	3.10E-04	3.11E-04	3.11E-04	3.12E-04	3.13E-04	3.13E-04
naphthalene	1.84E-07	0.00E+00	0.00E+00	4.00E-09	6.13E-04	6.14E-04	6.16E-04	6.17E-04	6.18E-04	6.19E-04	6.21E-04	6.22E-04	6.23E-04	6.24E-04	6.25E-04	6.27E-04
propionaldehyde	1.38E-07	0.00E+00	0.00E+00	3.00E-09	4.60E-04	4.61E-04	4.62E-04	4.63E-04	4.64E-04	4.64E-04	4.65E-04	4.66E-04	4.67E-04	4.68E-04	4.69E-04	4.70E-04
propylene	1.19E-05	0.00E+00	0.00E+00	2.59E-07	3.97E-02	3.98E-02	3.99E-02	3.99E-02	4.00E-02	4.01E-02	4.02E-02	4.03E-02	4.03E-02	4.04E-02	4.05E-02	4.06E-02
styrene	4.60E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03	1.56E-03	1.56E-03	1.57E-03
toluene	5.08E-05	0.00E+00	1.94E-06	2.24E-05	7.47E-02	7.48E-02	7.50E-02	7.51E-02	7.53E-02	7.54E-02	7.55E-02	7.57E-02	7.58E-02	7.60E-02	7.61E-02	7.63E-02
xylene (total)	3.51E-05	0.00E+00	1.12E-06	1.31E-05	6.24E-02	6.25E-02	6.26E-02	6.28E-02	6.29E-02	6.30E-02	6.31E-02	6.32E-02	6.36E-02	6.36E-02	6.37E-02	6.38E-02
aluminum	3.15E-04	1.08E-04	1.04E-05	1.09E-04	5.63E-04	2.16E-03	3.75E-03	5.34E-03	6.94E-03	8.53E-03	1.01E-02	1.17E-02	1.33E-02	1.49E-02	1.65E-02	1.81E-02
ammonium ion	6.04E-07	1.80E-07	1.77E-08	1.85E-07	1.53E-05	5.88E-05	1.02E-04	1.46E-04	1.89E-04	2.33E-04	2.76E-04	3.20E-04	3.63E-04	4.07E-04	4.50E-04	4.94E-04
antimony	6.29E-08	2.17E-08	2.09E-09	2.19E-08	3.58E-07	1.37E-06	2.39E-06	3.40E-06	4.41E-06	5.43E-06	6.44E-06	7.45E-06	8.47E-06	9.48E-06	1.05E-05	1.15E-05
arsenic	9.01E-08	2.75E-08	2.74E-09	2.80E-08	9.12E-08	3.47E-07	6.03E-07	8.59E-07	1.12E-06	1.37E-06	1.63E-06	1.88E-06	2.14E-06	2.40E-06	2.65E-06	2.91E-06
barium	6.15E-05	1.63E-06	6.49E-07	3.27E-06	1.30E-04	4.85E-04	8.39E-04	1.19E-03	1.55E-03	1.90E-03	2.26E-03	2.61E-03	2.97E-03	3.32E-03	3.68E-03	4.03E-03
bromine	1.88E-07	4.03E-08	4.25E-09	4.20E-08	2.41E-07	6.84E-07	1.13E-06	1.57E-06	2.01E-06	2.45E-06	2.90E-06	3.34E-06	3.78E-06	4.22E-06	4.67E-06	5.11E-06
cadmium	1.29E-07	4.45E-08	4.29E-09	4.49E-08	1.58E-08	6.05E-08	1.05E-07	1.50E-07	1.95E-07	2.39E-07	2.84E-07	3.29E-07	3.74E-07	4.18E-07	4.63E-07	5.08E-07
chlorine	2.12E-05	4.86E-06	4.83E-07	5.03E-06	2.12E-05	4.82E-05	7.52E-05	1.02E-04	1.29E-04	1.56E-04	1.83E-04	2.10E-04	2.37E-04	2.64E-04	2.91E-04	3.18E-04
chromium (VI)	1.09E-07	1.55E-08	2.04E-09	1.75E-08	1.46E-07	5.34E-07	9.22E-07	1.31E-06	1.70E-06	2.09E-06	2.47E-06	2.86E-06	3.25E-06	3.64E-06	4.03E-06	4.41E-06
cobalt	4.72E-07	1.54E-07	1.49E-08	1.55E-07	2.00E-07	5.38E-07	8.75E-07	1.21E-06	1.55E-06	1.89E-06	2.22E-06	2.56E-06	2.90E-06	3.24E-06	3.58E-06	3.91E-06
copper	1.29E-05	2.72E-07	1.30E-07	6.23E-07	2.73E-05	1.02E-04	1.76E-04	2.50E-04	3.25E-04	3.99E-04	4.73E-04	5.48E-04	6.22E-04	6.97E-04	7.71E-04	8.45E-04
lead	2.42E-06	8.00E-07	7.76E-08	8.10E-07	8.46E-07	3.22E-06	5.60E-06	7.97E-06	1.03E-05	1.27E-05	1.51E-05	1.75E-05	1.99E-05	2.22E-05	2.46E-05	2.70E-05
manganese	5.68E-06	1.33E-06	1.44E-07	1.39E-06	8.22E-06	3.09E-05	5.35E-05	7.61E-05	9.88E-05	1.21E-04	1.44E-04	1.67E-04	1.90E-04	2.13E-04	2.36E-04	2.59E-04
mercury	6.62E-08	2.28E-08	2.20E-09	2.30E-08	4.74E-08	1.82E-07	3.16E-07	4.50E-07	5.84E-07	7.18E-07	8.52E-07	9.87E-07	1.12E-06	1.26E-06	1.39E-06	1.52E-06
nickel	9.96E-07	9.32E-08	1.50E-08	1.14E-07	1.67E-06	6.02E-06	1.04E-05	1.47E-05	1.91E-05	2.34E-05	2.78E-05	3.21E-05	3.65E-05	4.08E-05	4.52E-05	4.95E-05
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
phosphorous	6.88E-06	2.26E-06	2.18E-07	2.29E-06	1.49E-05	5.72E-05	9.95E-05	1.42E-04	1.84E-04	2.26E-04	2.69E-04	3.11E-04	3.53E-04	3.96E-04	4.38E-04	4.80E-04
selenium	3.65E-08	3.62E-09	5.30E-10	4.45E-09	6.60E-08	2.47E-07	4.29E-07	6.10E-07	7.91E-07	9.72E-07	1.15E-06	1.33E-06	1.52E-06	1.70E-06	1.88E-06	2.06E-06
silicon	8.81E-04	2.79E-04	2.75E-05	2.83E-04	1.75E-03	6.71E-03	1.17E-02	1.66E-02	2.16E-02	2.65E-02	3.15E-02	3.64E-02	4.14E-02	4.63E-02	5.13E-02	5.62E-02
silver	3.31E-08	1.14E-08	1.10E-09	1.15E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
sulfates	7.84E-05	7.05E-06	9.82E-07	8.14E-06	1.63E-04	4.09E-04	6.56E-04	9.02E-04	1.15E-03	1.39E-03	1.64E-03	1.89E-03	2.13E-03	2.38E-03	2.63E-03	2.87E-03
thallium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.10E-08	8.07E-08	1.40E-07	2.00E-07	2.60E-07	3.19E-07	3.79E-07	4.39E-07	4.98E-07	5.58E-07	6.17E-07	6.77E-07
vanadium	1.80E-06	3.84E-07	4.30E-08	4.07E-07	1.88E-06	7.05E-06	1.22E-05	1.74E-05	2.25E-05	2.77E-05	3.29E-05	3.81E-05	4.32E-05	4.84E-05	5.36E-05	5.87E-05
zinc	3.89E-06	7.60E-07	7.57E-08	8.27E-07	8.53E-06	3.21E-05	5.57E-05	7.93E-05	1.03E-04	1.27E-04	1.50E-04	1.74E-04	1.97E-04	2.21E-04	2.45E-04	2.68E-04
Diesel PM	1.18E-03	1.30E-04	3.00E-05	1.30E-04	7.17E-06	2.16E-05	3.61E-05	5.05E-05	6.50E-05	7.94E-05	9.39E-05	1.08E-04	1.23E-04	1.37E-04	1.52E-04	1.66E-04

[1] Residential Maximum Grid No.
NA = Not Available
NC = Not Calculated
Source: CDM Smith, 2017

Table 3-3.2
RAGS F Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project - Operations - with 2024-2027 Unmitigated Construction - Lifetime Exposure - Child Resident
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	Residential Child
Exposure Time	24 (hrs/day)
Exposure Duration	6 (years)
Exposure Frequency	350 (days/year)
Averaging Time (non-carcinogenic)	52560 (hrs)
Averaging Time (carcinogenic)	613200 (hrs)

	Concentration at Location w/Maximum Risk (ug/m³)															
	Construction				Operation by Year											
TAC	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
1,2,4-trimethylbenzene	3.77E-06	0.00E+00	0.00E+00	8.20E-08	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.27E-02	1.27E-02	1.27E-02	1.27E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02
1,3-butadiene	2.12E-06	0.00E+00	0.00E+00	4.60E-08	7.05E-03	7.07E-03	7.08E-03	7.09E-03	7.11E-03	7.12E-03	7.14E-03	7.15E-03	7.16E-03	7.18E-03	7.19E-03	7.21E-03
2,2,4-trimethylpentane	8.97E-06	0.00E+00	0.00E+00	1.95E-07	2.99E-02	3.00E-02	3.00E-02	3.01E-02	3.01E-02	3.02E-02	3.03E-02	3.03E-02	3.04E-02	3.04E-02	3.05E-02	3.05E-02
acetaldehyde	1.10E-06	0.00E+00	0.00E+00	2.40E-08	3.68E-03	3.69E-03	3.69E-03	3.70E-03	3.71E-03	3.72E-03	3.72E-03	3.73E-03	3.74E-03	3.74E-03	3.75E-03	3.76E-03
acrolein	5.06E-07	0.00E+00	0.00E+00	1.10E-08	1.69E-03	1.69E-03	1.69E-03	1.70E-03	1.70E-03	1.71E-03	1.71E-03	1.71E-03	1.72E-03	1.72E-03	1.72E-03	1.72E-03
benzene	9.61E-06	0.00E+00	0.00E+00	2.09E-07	3.20E-02	3.21E-02	3.22E-02	3.22E-02	3.23E-02	3.24E-02	3.24E-02	3.25E-02	3.25E-02	3.26E-02	3.27E-02	3.27E-02
cumene	4.60E-08	0.00E+00	0.00E+00	1.00E-09	1.53E-04	1.54E-04	1.54E-04	1.54E-04	1.55E-04	1.55E-04	1.55E-04	1.55E-04	1.56E-04	1.56E-04	1.56E-04	1.57E-04
cyclohexane	2.39E-06	0.00E+00	0.00E+00	5.20E-08	7.97E-03	7.99E-03	8.00E-03	8.02E-03	8.04E-03	8.05E-03	8.07E-03	8.08E-03	8.10E-03	8.11E-03	8.13E-03	8.15E-03
ethylbenzene	1.43E-05	0.00E+00	6.96E-07	7.98E-06	1.36E-02	1.37E-02	1.37E-02	1.37E-02	1.38E-02	1.38E-02	1.38E-02	1.38E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02
ethylene	2.48E-05	0.00E+00	0.00E+00	5.39E-07	8.26E-02	8.28E-02	8.30E-02	8.31E-02	8.33E-02	8.35E-02	8.36E-02	8.38E-02	8.39E-02	8.41E-02	8.43E-02	8.44E-02
formaldehyde	6.16E-06	0.00E+00	0.00E+00	1.34E-07	2.05E-02	2.06E-02	2.07E-02	2.07E-02	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02	2.09E-02	2.09E-02
hexane, n-	6.21E-06	0.00E+00	0.00E+00	1.35E-07	2.07E-02	2.07E-02	2.08E-02	2.08E-02	2.09E-02	2.09E-02	2.09E-02	2.10E-02	2.10E-02	2.11E-02	2.11E-02	2.11E-02
isoprene, except from vegetative emission sources	5.52E-07	0.00E+00	0.00E+00	1.20E-08	1.84E-03	1.84E-03	1.85E-03	1.85E-03	1.85E-03	1.86E-03	1.86E-03	1.87E-03	1.87E-03	1.87E-03	1.88E-03	1.88E-03
methyl alcohol	4.60E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.57E-03
methyl ethyl ketone	9.20E-08	0.00E+00	0.00E+00	2.00E-09	3.07E-04	3.07E-04	3.08E-04	3.08E-04	3.09E-04	3.10E-04	3.10E-04	3.11E-04	3.11E-04	3.12E-04	3.13E-04	3.13E-04
naphthalene	1.84E-07	0.00E+00	0.00E+00	4.00E-09	6.13E-04	6.14E-04	6.16E-04	6.17E-04	6.18E-04	6.19E-04	6.21E-04	6.22E-04	6.23E-04	6.24E-04	6.25E-04	6.27E-04
propionaldehyde	1.38E-07	0.00E+00	0.00E+00	3.00E-09	4.60E-04	4.61E-04	4.62E-04	4.63E-04	4.64E-04	4.64E-04	4.65E-04	4.66E-04	4.67E-04	4.68E-04	4.69E-04	4.70E-04
propylene	1.19E-05	0.00E+00	0.00E+00	2.59E-07	3.97E-02	3.98E-02	3.99E-02	3.99E-02	4.00E-02	4.01E-02	4.02E-02	4.03E-02	4.03E-02	4.04E-02	4.05E-02	4.06E-02
styrene	4.60E-07	0.00E+00	0.00E+00	1.00E-08	1.53E-03	1.54E-03	1.54E-03	1.54E-03	1.55E-03	1.55E-03	1.55E-03	1.55E-03	1.56E-03	1.56E-03	1.56E-03	1.57E-03
toluene	5.08E-05	0.00E+00	1.94E-06	2.24E-05	7.47E-02	7.48E-02	7.50E-02	7.51E-02	7.53E-02	7.54E-02	7.55E-02	7.57E-02	7.58E-02	7.60E-02	7.61E-02	7.63E-02
xylene (total)	3.51E-05	0.00E+00	1.12E-06	1.31E-05	6.24E-02	6.25E-02	6.26E-02	6.28E-02	6.29E-02	6.30E-02	6.31E-02	6.32E-02	6.36E-02	6.36E-02	6.37E-02	6.38E-02
aluminum	3.15E-04	1.08E-04	1.04E-05	1.09E-04	5.63E-04	2.16E-03	3.75E-03	5.34E-03	6.94E-03	8.53E-03	1.01E-02	1.17E-02	1.33E-02	1.49E-02	1.65E-02	1.81E-02
ammonium ion	6.04E-07	1.80E-07	1.77E-08	1.85E-07	1.53E-05	5.88E-05	1.02E-04	1.46E-04	1.89E-04	2.33E-04	2.76E-04	3.20E-04	3.63E-04	4.07E-04	4.50E-04	4.94E-04
antimony	6.29E-08	2.17E-08	2.09E-09	2.19E-08	3.58E-07	1.37E-06	2.39E-06	3.40E-06	4.41E-06	5.43E-06	6.44E-06	7.45E-06	8.47E-06	9.48E-06	1.05E-05	1.15E-05
arsenic	9.01E-08	2.75E-08	2.74E-09	2.80E-08	9.12E-08	3.47E-07	6.03E-07	8.59E-07	1.12E-06	1.37E-06	1.63E-06	1.88E-06	2.14E-06	2.40E-06	2.65E-06	2.91E-06
barium	6.15E-05	1.63E-06	6.49E-07	3.27E-06	1.30E-04	4.85E-04	8.39E-04	1.19E-03	1.55E-03	1.90E-03	2.26E-03	2.61E-03	2.97E-03	3.32E-03	3.68E-03	4.03E-03
bromine	1.88E-07	4.03E-08	4.25E-09	4.20E-08	2.41E-07	6.84E-07	1.13E-06	1.57E-06	2.01E-06	2.45E-06	2.90E-06	3.34E-06	3.78E-06	4.22E-06	4.67E-06	5.11E-06
cadmium	1.29E-07	4.45E-08	4.29E-09	4.49E-08	1.58E-08	6.05E-08	1.05E-07	1.50E-07	1.95E-07	2.39E-07	2.84E-07	3.29E-07	3.74E-07	4.18E-07	4.63E-07	5.08E-07
chlorine	2.12E-05	4.86E-06	4.83E-07	5.03E-06	2.12E-05	4.82E-05	7.52E-05	1.02E-04	1.29E-04	1.56E-04	1.83E-04	2.10E-04	2.37E-04	2.64E-04	2.91E-04	3.18E-04
chromium (VI)	1.09E-07	1.55E-08	2.04E-09	1.75E-08	1.46E-07	5.34E-07	9.22E-07	1.31E-06	1.70E-06	2.09E-06	2.47E-06	2.86E-06	3.25E-06	3.64E-06	4.03E-06	4.41E-06
cobalt	4.72E-07	1.54E-07	1.49E-08	1.55E-07	2.00E-07	5.38E-07	8.75E-07	1.21E-06	1.55E-06	1.89E-06	2.22E-06	2.56E-06	2.90E-06	3.24E-06	3.58E-06	3.91E-06
copper	1.29E-05	2.72E-07	1.30E-07	6.23E-07	2.73E-05	1.02E-04	1.76E-04	2.50E-04	3.25E-04	3.99E-04	4.73E-04	5.48E-04	6.22E-04	6.97E-04	7.71E-04	8.45E-04
lead	2.42E-06	8.00E-07	7.76E-08	8.10E-07	8.46E-07	3.22E-06	5.60E-06	7.97E-06	1.03E-05	1.27E-05	1.51E-05	1.75E-05	1.99E-05	2.22E-05	2.46E-05	2.70E-05
manganese	5.68E-06	1.33E-06	1.44E-07	1.39E-06	8.22E-06	3.09E-05	5.35E-05	7.61E-05	9.88E-05	1.21E-04	1.44E-04	1.67E-04	1.90E-04	2.13E-04	2.36E-04	2.59E-04
mercury	6.62E-08	2.28E-08	2.20E-09	2.30E-08	4.74E-08	1.82E-07	3.16E-07	4.50E-07	5.84E-07	7.18E-07	8.52E-07	9.87E-07	1.12E-06	1.26E-06	1.39E-06	1.52E-06
nickel	9.96E-07	9.32E-08	1.50E-08	1.14E-07	1.67E-06	6.02E-06	1.04E-05	1.47E-05	1.91E-05	2.34E-05	2.78E-05	3.21E-05	3.65E-05	4.08E-05	4.52E-05	4.95E-05
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
phosphorous	6.88E-06	2.26E-06	2.18E-07	2.29E-06	1.49E-05	5.72E-05	9.95E-05	1.42E-04	1.84E-04	2.26E-04	2.69E-04	3.11E-04	3.53E-04	3.96E-04	4.38E-04	4.80E-04
selenium	3.65E-08	3.62E-09	5.30E-10	4.45E-09	6.60E-08	2.47E-07	4.29E-07	6.10E-07	7.91E-07	9.72E-07	1.15E-06	1.33E-06	1.52E-06	1.70E-06	1.88E-06	2.06E-06
silicon	8.81E-04	2.79E-04	2.75E-05	2.83E-04	1.75E-03	6.71E-03	1.17E-02	1.66E-02	2.16E-02	2.65E-02	3.15E-02	3.64E-02	4.14E-02	4.63E-02	5.13E-02	5.62E-02
silver	3.31E-08	1.14E-08	1.10E-09	1.15E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
sulfates	7.84E-05	7.05E-06	9.82E-07	8.14E-06	1.63E-04	4.09E-04	6.56E-04	9.02E-04	1.15E-03	1.39E-03	1.64E-03	1.89E-03	2.13E-03	2.38E-03	2.63E-03	2.87E-03
thallium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.10E-08	8.07E-08	1.40E-07	2.00E-07	2.60E-07	3.19E-07	3.79E-07	4.39E-07	4.98E-07	5.58E-07	6.17E-07	6.77E-07
vanadium	1.80E-06	3.84E-07	4.30E-08	4.07E-07	1.88E-06	7.05E-06	1.22E-05	1.74E-05	2.25E-05	2.77E-05	3.29E-05	3.81E-05	4.32E-05	4.84E-05	5.36E-05	5.87E-05
zinc	3.89E-06	7.60E-07	7.57E-08	8.27E-07	8.53E-06	3.21E-05	5.57E-05	7.93E-05	1.03E-04	1.27E-04	1.50E-04	1.74E-04	1.97E-04	2.21E-04	2.45E-04	2.68E-04
Diesel PM	1.18E-03	1.30E-04	3.00E-05	1.30E-04	7.17E-06	2.16E-05	3.61E-05	5.05E-05	6.50E-05	7.94E-05	9.39E-05	1.08E-04	1.23E-04	1.37E-04	1.52E-04	1.66E-04

[1] Residential Maximum Grid No.
NA = Not Available
NC = Not Calculated
Source: CDM Smith, 2017

Table 3-3.3
RAGS F Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project - Operations - with 2024-2027 Unmitigated Construction - Lifetime Exposure - School Child
(Based on Peak Location of Residential Cancer Risks[1])

RAGS F Equations
EC = (CA x ET x EF x ED) / (AT)
Risk = IUR x EC
HQ = EC / REL
Where: HQ = Hazard Quotient; EC = Exposure Concentration; IUR = Inhalation Unit Risk; AT = Averaging Time (for cancer or non-cancer); REL = Reference Exposure Level

	Toxicity Criteria		Cancer Risk to School Child														2024-2032	2024-2035
	EPA Inhalation Unit Risk	CalEPA Inhalation Unit Risk	Construction and Operations				Operations										Cancer Risk to 9-yr School	Cancer Risk to 12-yr School
TAC	(ug/m³)⁻¹ [1]	(ug/m³)⁻¹ [1]	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035			Child	Child
1,2,4-trimethylbenzene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	3.00E-05	1.70E-04	3.13E-09	3.13E-09	3.14E-09	3.15E-09	3.15E-09	3.16E-09	3.17E-09	3.17E-09	3.18E-09	3.18E-09	3.19E-09	3.20E-09	2.84E-08	3.79E-08
2,2,4-trimethylpentane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	2.20E-06	2.70E-06	2.59E-11	2.60E-11	2.60E-11	2.61E-11	2.61E-11	2.

CDM Smith
Partners Zone

Operation

3-4 2035 With Project vs. 2035 Without Project

Table 3-4.1
RAGS F Risk Calculation for LAX Landside Access Modernization Program, 2035 With Project vs. 2035 Without Project - Operations - Lifetime Exposure - Adult Resident
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	Residential Adult
Exposure Time	24 (hrs/day)
Exposure Duration	70 (years)
Exposure Frequency	350 (days/year)
Averaging Time (non-carcinogenic)	613200 (hrs)
Averaging Time (carcinogenic)	613200 (hrs)

TAC	Concentration at Location w/Maximum Risk (ug/m³)	Toxicity Criteria		Cancer Risks	
		EPA Inhalation Unit Risk (ug/m³)⁻¹	CalEPA Inhalation Unit Risk (ug/m³)⁻¹	Cancer Risk to 30-year Resident	Cancer Risk to 70-year Resident
	2035				
1,2,4-trimethylbenzene	1.29E-02	NA	NA	NC	NC
1,3-butadiene	7.21E-03	3.00E-05	NA	1.70E-04	5.03E-07
2,2,4-trimethylpentane	3.60E-02	NA	NA	NC	1.17E-06
acetaldehyde	3.76E-03	2.20E-06	NA	2.70E-06	4.17E-09
acrolein	1.72E-03	NA	NA	NC	9.73E-09
benzene	1.27E-02	7.80E-06	NA	3.90E-05	9.16E-07
cyclohexane	8.11E-03	NA	NA	NC	NC
ethylbenzene	1.39E-02	2.50E-06	NA	1.43E-08	3.34E-08
ethylene	2.11E-02	6.00E-06	NA	5.18E-08	1.21E-07
formaldehyde	1.88E-03	1.30E-05	NA	1.57E-06	3.68E-09
isoprene, except from vegetative emission sources	1.57E-03	NA	NA	NC	NC
methyl alcohol	3.13E-04	NA	NA	NC	NC
methyl ethyl ketone	6.27E-04	NA	NA	NC	NC
naphthalene	4.70E-04	3.40E-05	NA	8.79E-09	2.04E-08
propionaldehyde	1.57E-03	NA	NA	NC	NC
propylene	1.57E-03	NA	NA	NC	NC
styrene	1.57E-03	NA	NA	NC	NC
toluene	6.38E-02	NA	NA	NC	NC
xylene (total)	7.63E-02	NA	NA	NC	NC
aluminum	1.81E-02	NA	NA	NC	NC
ammonium ion	4.94E-04	NA	NA	NC	NC
arsenic	4.30E-03	3.30E-03	NA	3.94E-09	9.20E-09
barium	4.03E-03	NA	NA	NC	NC
bromine	2.91E-06	NA	NA	NC	NC
cadmium	5.11E-06	1.80E-03	4.20E-03	8.76E-10	2.05E-09
chlorine	5.08E-07	NA	NA	NC	NC
chromium (VI)	4.31E-04	1.20E-02	1.60E-01	2.72E-07	6.35E-07
cobalt	3.91E-06	NA	NA	NC	NC
copper	2.70E-05	NA	NA	NC	NC
lead	8.45E-04	NA	NA	NC	NC
manganese	2.57E-04	NA	NA	NC	NC
mercury	1.25E-04	NA	NA	NC	NC
non-phosphate phosphorous	4.92E-05	NA	2.40E-04	5.29E-09	1.23E-08
phosphorus	0.00E+00	NA	NA	NC	NC
selenium	4.80E-04	NA	NA	NC	NC
silicon	5.62E-02	NA	NA	NC	NC
sulfates	0.00E+00	NA	NA	NC	NC
thallium	2.97E-07	NA	NA	NC	NC
vanadium	5.67E-05	NA	NA	NC	NC
zinc	2.68E-04	NA	NA	NC	NC
Diesel PM	1.66E-04	3.00E-04	3.00E-04	2.05E-08	4.78E-08
TOTAL				**1.3E-06**	**3.0E-06**

[1] Residential Maximum Grid No. 484
NA = Not Available
NC = Not Calculated
Source: CDM Smith, 2017

ug/m³ = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Table 3-3.4
RAGS F Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project - Operations - with 2024-2027 Unmitigated Construction - Lifetime Exposure - Off-Airport Worker
(Based on Peak Location of Commercial Cancer Risks[1])

Exposure Parameters	Adult Worker
Exposure Time	8 (hrs/day)
Exposure Duration	25 (years)
Exposure Frequency	250 (days/year)
Averaging Time (non-carcinogenic)	219000 (hrs)
Averaging Time (carcinogenic)	613200 (hrs)

TAC	Concentration at Location w/Maximum Risk (ug/m³)															
	Construction				Operation by Year											
	2024	2025	2026	2027	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
1,2,4-trimethylbenzene	3.28E-06	0.00E+00	0.00E+00	8.20E-08	2.64E-02	2.65E-02	2.66E-02	2.67E-02	2.68E-02	2.69E-02	2.70E-02	2.71E-02	2.72E-02	2.73E-02	2.74E-02	2.74E-02
1,3-butadiene	1.84E-06	0.00E+00	0.00E+00	4.60E-08	1.48E-02	1.49E-02	1.49E-02	1.50E-02	1.50E-02	1.51E-02	1.51E-02	1.52E-02	1.52E-02	1.53E-02	1.53E-02	1.54E-02
2,2,4-trimethylpentane	7.80E-06	0.00E+00	0.00E+00	1.95E-07	6.29E-02	6.31E-02	6.33E-02	6.35E-02	6.37E-02	6.40E-02	6.42E-02	6.44E-02	6.46E-02	6.48E-02	6.51E-02	6.53E-02
acetaldehyde	9.60E-07	0.00E+00	0.00E+00	2.40E-08	7.74E-03	7.76E-03	7.79E-03	7.82E-03	7.84E-03	7.87E-03	7.90E-03	7.93E-03	7.95E-03	7.98E-03	8.01E-03	8.03E-03
acrolein	4.40E-07	0.00E+00	0.00E+00	1.10E-08	3.55E-03	3.56E-03	3.57E-03	3.58E-03	3.60E-03	3.61E-03	3.62E-03	3.63E-03	3.65E-03	3.66E-03	3.67E-03	3.68E-03
benzene	8.36E-06	0.00E+00	0.00E+00	2.09E-07	6.74E-02	6.76E-02	6.78E-02	6.81E-02	6.83E-02	6.85E-02	6.88E-02	6.90E-02	6.93E-02	6.95E-02	6.97E-02	7.00E-02
cumene	4.00E-08	0.00E+00	0.00E+00	1.00E-09	3.22E-04	3.23E-04	3.25E-04	3.26E-04	3.27E-04	3.28E-04	3.29E-04	3.30E-04	3.31E-04	3.32E-04	3.34E-04	3.35E-04
cyclohexane	2.08E-06	0.00E+00	0.00E+00	5.22E-08	1.68E-02	1.68E-02	1.69E-02	1.69E-02	1.70E-02	1.71E-02	1.71E-02	1.72E-02	1.72E-02	1.73E-02	1.73E-02	1.74E-02
ethylbenzene	1.31E-05	0.00E+00	9.28E-07	8.67E-06	2.87E-02	2.88E-02	2.89E-02	2.90E-02	2.91E-02	2.92E-02	2.93E-02	2.94E-02	2.95E-02	2.96E-02	2.97E-02	2.98E-02
ethylene	2.16E-05	0.00E+00	0.00E+00	5.39E-07	1.74E-01	1.74E-01	1.75E-01	1.76E-01	1.76E-01	1.77E-01	1.77E-01	1.78E-01	1.79E-01	1.79E-01	1.80E-01	1.80E-01
formaldehyde	5.36E-06	0.00E+00	0.00E+00	1.34E-07	4.32E-02	4.33E-02	4.35E-02	4.36E-02	4.38E-02	4.40E-02	4.41E-02	4.43E-02	4.44E-02	4.46E-02	4.47E-02	4.49E-02
hexane, n-	5.40E-06	0.00E+00	0.00E+00	1.35E-07	4.35E-02	4.37E-02	4.38E-02	4.40E-02	4.41E-02	4.43E-02	4.44E-02	4.46E-02	4.47E-02	4.49E-02	4.50E-02	4.52E-02
isoprene, except from vegetative emission sources	4.80E-07	0.00E+00	0.00E+00	1.20E-08	3.87E-03	3.88E-03	3.90E-03	3.91E-03	3.92E-03	3.94E-03	3.95E-03	3.96E-03	3.98E-03	3.99E-03	4.00E-03	4.02E-03
methyl alcohol	4.00E-07	0.00E+00	0.00E+00	1.00E-08	3.22E-03	3.23E-03	3.25E-03	3.26E-03	3.27E-03	3.28E-03	3.29E-03	3.30E-03	3.31E-03	3.32E-03	3.34E-03	3.35E-03
methyl ethyl ketone	8.00E-08	0.00E+00	0.00E+00	2.00E-09	6.45E-04	6.47E-04	6.49E-04	6.51E-04	6.54E-04	6.56E-04	6.58E-04	6.60E-04	6.63E-04	6.65E-04	6.67E-04	6.69E-04
naphthalene	1.60E-07	0.00E+00	0.00E+00	4.00E-09	1.29E-03	1.29E-03	1.30E-03	1.30E-03	1.31E-03	1.31E-03	1.32E-03	1.32E-03	1.33E-03	1.33E-03	1.33E-03	1.34E-03
propionaldehyde	1.20E-07	0.00E+00	0.00E+00	3.00E-09	9.67E-04	9.70E-04	9.74E-04	9.77E-04	9.81E-04	9.84E-04	9.87E-04	9.91E-04	9.94E-04	9.97E-04	1.00E-03	1.00E-03
propylene	1.04E-05	0.00E+00	0.00E+00	2.59E-07	8.35E-02	8.38E-02	8.41E-02	8.44E-02	8.47E-02	8.49E-02	8.52E-02	8.55E-02	8.58E-02	8.61E-02	8.64E-02	8.67E-02
styrene	4.00E-07	0.00E+00	0.00E+00	1.00E-08	3.22E-03	3.23E-03	3.25E-03	3.26E-03	3.27E-03	3.28E-03	3.29E-03	3.30E-03	3.31E-03	3.32E-03	3.34E-03	3.35E-03
toluene	4.59E-05	0.00E+00	2.58E-06	2.44E-05	1.57E-01	1.58E-01	1.58E-01	1.59E-01	1.59E-01	1.59E-01	1.60E-01	1.60E-01	1.61E-01	1.61E-01	1.62E-01	1.63E-01
xylene (total)	3.16E-05	0.00E+00	1.49E-06	1.42E-05	1.31E-01	1.32E-01	1.32E-01	1.33E-01	1.33E-01	1.33E-01	1.34E-01	1.34E-01	1.35E-01	1.35E-01	1.36E-01	1.36E-01
aluminum	2.76E-04	1.16E-04	1.14E-05	1.18E-04	8.55E-04	2.22E-03	3.58E-03	4.94E-03	6.30E-03	7.66E-03	9.03E-03	1.04E-02	1.17E-02	1.31E-02	1.45E-02	1.58E-02
ammonium ion	5.21E-07	1.95E-07	2.12E-08	2.01E-07	2.33E-05	6.05E-05	9.76E-05	1.35E-04	1.72E-04	2.09E-04	2.46E-04	2.83E-04	3.20E-04	3.58E-04	3.95E-04	4.32E-04
antimony	5.51E-08	2.32E-08	2.28E-09	2.39E-08	5.44E-07	1.41E-06	2.28E-06	3.14E-06	4.01E-06	4.87E-06	5.74E-06	6.61E-06	7.47E-06	8.34E-06	9.21E-06	1.01E-05
arsenic	7.79E-08	2.95E-08	2.98E-09	3.03E-08	1.39E-07	3.57E-07	5.76E-07	7.95E-07	1.01E-06	1.23E-06	1.45E-06	1.67E-06	1.89E-06	2.11E-06	2.33E-06	2.54E-06
barium	4.80E-05	2.25E-06	6.61E-07	3.91E-06	1.97E-04	5.00E-04	8.03E-04	1.11E-03	1.41E-03	1.71E-03	2.01E-03	2.32E-03	2.62E-03	2.92E-03	3.23E-03	3.53E-03
bromine	1.63E-07	4.37E-08	4.75E-09	4.57E-08	3.63E-07	6.96E-07	1.03E-06	1.36E-06	1.70E-06	2.03E-06	2.36E-06	2.70E-06	3.03E-06	3.37E-06	3.70E-06	4.03E-06
cadmium	1.13E-07	4.76E-08	4.68E-09	4.84E-08	2.40E-08	6.22E-08	1.00E-07	1.39E-07	1.77E-07	2.15E-07	2.53E-07	2.92E-07	3.30E-07	3.68E-07	4.06E-07	4.44E-07
chlorine	1.86E-05	5.29E-06	6.03E-07	5.50E-06	3.17E-05	4.86E-05	6.54E-05	8.23E-05	9.91E-05	1.16E-04	1.33E-04	1.50E-04	1.67E-04	1.83E-04	2.00E-04	2.17E-04
chromium (VI)	8.93E-08	1.72E-08	2.19E-09	1.93E-08	2.22E-07	5.51E-07	8.80E-07	1.21E-06	1.54E-06	1.87E-06	2.20E-06	2.52E-06	2.85E-06	3.18E-06	3.51E-06	3.84E-06
cobalt	4.17E-07	1.65E-07	1.62E-08	1.67E-07	3.01E-07	5.45E-07	7.89E-07	1.03E-06	1.28E-06	1.52E-06	1.76E-06	2.01E-06	2.25E-06	2.50E-06	2.74E-06	2.98E-06
copper	1.01E-05	4.03E-07	1.36E-07	7.55E-07	4.15E-05	1.05E-04	1.68E-04	2.32E-04	2.95E-04	3.59E-04	4.23E-04	4.85E-04	5.49E-04	6.12E-04	6.76E-04	7.39E-04
lead	2.11E-06	8.58E-07	8.62E-08	8.75E-07	1.29E-06	3.31E-06	5.34E-06	7.37E-06	9.40E-06	1.14E-05	1.35E-05	1.55E-05	1.75E-05	1.95E-05	2.16E-05	2.36E-05
manganese	4.79E-06	1.44E-06	1.56E-07	1.51E-06	1.25E-05	3.18E-05	5.11E-05	7.04E-05	8.96E-05	1.09E-04	1.28E-04	1.48E-04	1.67E-04	1.86E-04	2.05E-04	2.25E-04
mercury	5.80E-08	2.44E-08	2.40E-09	2.48E-08	7.20E-08	1.87E-07	3.01E-07	4.16E-07	5.31E-07	6.45E-07	7.60E-07	8.75E-07	9.89E-07	1.10E-06	1.22E-06	1.33E-06
nickel	8.03E-07	1.06E-07	1.62E-08	1.28E-07	2.54E-06	6.21E-06	9.88E-06	1.35E-05	1.72E-05	2.09E-05	2.44E-05	2.82E-05	3.19E-05	3.56E-05	3.92E-05	4.29E-05
non-phosphate phosphorous	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
phosphorus	5.99E-06	2.43E-06	2.50E-07	2.48E-06	2.27E-05	5.88E-05	9.50E-05	1.31E-04	1.67E-04	2.03E-04	2.39E-04	2.76E-04	3.12E-04	3.48E-04	3.84E-04	4.20E-04
selenium	2.93E-08	4.26E-09	7.60E-10	5.12E-09	1.00E-07	2.55E-07	4.10E-07	5.65E-07	7.19E-07	8.74E-07	1.03E-06	1.18E-06	1.34E-06	1.49E-06	1.65E-06	1.80E-06
silicon	7.64E-04	2.99E-04	3.00E-05	3.08E-04	2.66E-03	6.90E-03	1.11E-02	1.54E-02	1.96E-02	2.38E-02	2.80E-02	3.23E-02	3.65E-02	4.07E-02	4.50E-02	4.92E-02
silver	2.90E-08	1.22E-08	1.20E-09	1.24E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
sulfates	6.78E-05	7.88E-06	1.07E-06	9.03E-06	2.44E-04	4.15E-04	5.85E-04	7.56E-04	9.26E-04	1.10E-03	1.27E-03	1.44E-03	1.61E-03	1.78E-03	1.95E-03	2.12E-03
thallium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.20E-08	8.29E-08	1.34E-07	1.85E-07	2.36E-07	2.87E-07	3.38E-07	3.89E-07	4.40E-07	4.91E-07	5.42E-07	5.92E-07
vanadium	1.51E-06	4.17E-07	4.63E-08	4.43E-07	2.86E-06	7.27E-06	1.17E-05	1.61E-05	2.05E-05	2.49E-05	2.93E-05	3.37E-05	3.81E-05	4.26E-05	4.70E-05	5.14E-05
zinc	3.24E-06	8.69E-07	1.35E-07	9.43E-07	1.30E-05	3.31E-05	5.32E-05	7.33E-05	9.34E-05	1.14E-04	1.34E-04	1.54E-04	1.74E-04	1.94E-04	2.14E-04	2.34E-04
Diesel PM	1.05E-03	1.40E-04	3.00E-05	1.40E-04	1.05E-05	2.61E-05	4.17E-05	5.74E-05	7.30E-05	8.86E-05	1.04E-04	1.20E-04	1.35E-04	1.51E-04	1.67E-04	1.82E-04

[1] Residential Maximum Grid No.
NA = Not Available
NC = Not Calculated
Source: CDM Smith, 2017

Table 3-3.4
RAGS F Risk Calculation for LAX Landside Access Modernization Program, 2024 With Project vs. 2024 Without Project - Operations - with 2024-2027 Unmitigated Construction - Lifetime Exposure - Off-Airport Worker
(Based on Peak Location of Commercial Cancer Risks[1])

RAGS F Equations
EC = (CA x ET x EF x ED) / (AT)
Risk = IUR x EC
HQ = EC / REL
Where: HQ = Hazard Quotient
IUR = Inhalation Unit Risk
REL = Reference Exposure Level
EC = Exposure Concentration
AT = Averaging Time (for cancer or non-cancer)

TAC	Toxicity Criteria		Cancer Risk to Adult Resident											Cancer Risks	
	EPA Inhalation Unit Risk (ug/m³)⁻¹	CalEPA Inhalation Unit Risk (ug/m³)⁻¹	Construction and Operations				Operation							Ops	Ops	Cancer Risk to 25-year Worker	Cancer Risk to 40-year Worker
			2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035 - 2047	2035 - 2063	18	
1,2,4-trimethylbenzene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,3-butadiene	3.00E-05	1.70E-04	8.22E-09	8.28E-09	8.28E-09	8.31E-09	8.34E-09	8.37E-09	8.39E-09	8.42E-09	8.45E-09	8.48E-09	8.51E-09	5.98E-08	1.88E-07	1.52E-07	2.80E-07
2,2,4-trimethylpentane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
acetaldehyde	2.20E-06	2.70E-06	6.81E-11	6.84E-11	6.86E-11	6.88E-11	6.91E-11	6.93E-11	6.96E-11	6.98E-11	7.00E-11	7.03E-11	7.05E-11	4.95E-10	1.56E-09	1.26E-09	2.32E-09
acrolein	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
benzene	7.80E-06	2.90E-05	6.37E-09	6.39E-09	6.42E-09	6.44E-09	6.46E-09	6.48E-09	6.51E-09	6.53E-09	6.55E-09	6.57E-09	6.60E-09	4.63E-08	1.46E-07	1.18E-07	2.17E-07
cumene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cyclohexane	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ethylbenzene	2.50E-06	2.50E-06	2.34E-10	2.35E-10	2.36E-10	2.36E-10	2.37E-10	2.38E-10	2.39E-10	2.40E-10	2.40E-10	2.41E-10	2.42E-10	1.70E-09	5.34E-09	4.32E-09	7.96E-09
ethylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
formaldehyde	1.30E-05	6.00E-06	8.45E-10	8.48E-10	8.51E-10	8.54E-10	8.57E-10	8.60E-10	8.63E-10	8.66E-10	8.69E-10	8.72E-10	8.75E-10	6.14E-09	1.93E-08	1.56E-08	2.88E-08
hexane, n-	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
isoprene, except from vegetative emission sources	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl alcohol	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
methyl ethyl ketone	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
naphthalene	3.40E-05	3.40E-05	1.43E-10	1.43E-10	1.44E-10	1.44E-10	1.45E-10	1.45E-10	1.46E-10	1.46E-10	1.47E-10	1.47E-10	1.48E-10	1.04E-09	3.27E-09	2.64E-09	4.87E-09
propionaldehyde	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
propylene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
styrene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
toluene	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
xylene (total)	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
aluminum	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
ammonium ion	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
antimony	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
arsenic	4.30E-03	3.30E-03	2.33E-12	4.18E-12	6.23E-12	8.84E-12	1.09E-11	1.33E-11	1.56E-11	1.80E-11	2.03E-11	2.27E-11	2.50E-11	1.92E-10	6.03E-10	3.39E-10	7.52E-10
barium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
bromine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
cadmium	1.80E-03	4.20E-03	1.88E-12	1.52E-12	1.44E-12	2.52E-12	2.42E-12	2.95E-12	3.47E-12	3.99E-12	4.52E-12	5.04E-12	5.56E-12	4.26E-11	1.34E-10	7.79E-11	1.68E-10
chlorine	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
chromium (VI)	1.20E-02	1.60E-01	1.52E-10	2.78E-10	4.31E-10	6.01E-10	7.52E-10	9.13E-10	1.07E-09	1.23E-09	1.40E-09	1.56E-09	1.72E-09	1.32E-08	4.13E-08	2.39E-08	5.14E-08
cobalt	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
copper	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
lead	NA	1.20E-05	1.33E-13	1.63E-13	2.13E-13	3.23E-13	3.68E-13	4.47E-13	5.27E-13	6.06E-13	6.86E-13	7.65E-13	8.45E-13	6.47E-12	2.03E-11	1.15E-11	2.54E-11
manganese	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
mercury	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
nickel	2.40E-04	2.60E-04	2.63E-12	5.33E-12	8.39E-12	1.16E-11	1.46E-11	1.77E-11	2.08E-11	2.39E-11	2.70E-11	3.02E-11	3.33E-11	2.55E-10	8.00E-10	4.55E-10	9.98E-10
non-phosphate phosphorous	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
phosphorus	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
selenium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silicon	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
silver	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
sulfates	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
thallium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
vanadium	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
zinc	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Diesel PM	3.00E-04	3.00E-04	1.04E-09	1.63E-10	7.02E-11	1.93E-10	7.14E-11	8.67E-11	1.02E-10	1.17E-10	1.33E-10	1.48E-10	1.63E-10	1.25E-09	3.93E-09	3.58E-09	6.21E-09
TOTAL			**1.7E-08**	**1.6E-08**	**1.7E-08**	**1.7E-08**	**1.7E-08**	**1.7E-08**	**1.7E-08**	**1.8E-08**	**1.8E-08**	**1.8E-08**	**1.8E-08**	**1.3E-07**	**4.1E-07**	**3.2E-07**	**6.0E-07**

NA = Not Available
NC = Not Calculated
Source: CDM Smith, 2017

ug/m³ = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day

Table 3-4.2
RAGS F Risk Calculation for LAX Landside Access Modernization Program, 2035 With Project vs. 2035 Without Project - Operations - Lifetime Exposure - Child Resident
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	Residential Child
Exposure Time	24 (hrs/day)
Exposure Duration	6 (years)
Exposure Frequency	350 (days/year)
Averaging Time (non-carcinogenic)	52560 (hrs)
Averaging Time (carcinogenic)	613200 (hrs)

	Concentration at Location w/Maximum Risk (ug/m^3)	Toxicity Criteria		Cancer Risks	
		EPA Inhalation Unit Risk	CalEPA Inhalation Unit Risk	Cancer Risk to 6-Yr Child	Cancer Risk to 9-Yr Child
TAC	2035	(ug/m^3)$^{-1}$	(ug/m^3)$^{-1}$	Resident	Resident
1,2,4-trimethylbenzene	1.28E-02	NA	NA	NC	NC
1,3-butadiene	7.21E-03	3.00E-05	1.70E-04	1.01E-07	1.51E-07
2,2,4-trimethylpentane	3.05E-02	NA	NA	NC	NC
acetaldehyde	3.76E-03	2.20E-06	2.70E-06	8.34E-10	1.25E-09
acrolein	1.72E-03	NA	NA	NC	NC
benzene	3.27E-02	7.80E-06	2.90E-05	7.80E-08	1.17E-07
cumene	1.57E-04	NA	NA	NC	NC
cyclohexane	8.15E-03	NA	NA	NC	NC
ethylbenzene	1.39E-02	2.50E-06	2.50E-06	2.86E-09	4.30E-09
ethylene	8.44E-02	NA	NA	NC	NC
formaldehyde	2.10E-02	1.30E-05	6.00E-06	1.04E-08	1.55E-08
hexane, n-	2.11E-02	NA	NA	NC	NC
isoprene, except from vegetative	1.88E-03	NA	NA	NC	NC
methyl alcohol	1.57E-03	NA	NA	NC	NC
methyl ethyl ketone	3.13E-04	NA	NA	NC	NC
naphthalene	6.27E-04	3.40E-05	3.40E-05	1.75E-09	2.63E-09
propionaldehyde	4.70E-04	NA	NA	NC	NC
propylene	4.06E-02	NA	NA	NC	NC
styrene	1.57E-03	NA	NA	NC	NC
toluene	7.63E-02	NA	NA	NC	NC
xylene (total)	6.38E-02	NA	NA	NC	NC
aluminum	1.81E-02	NA	NA	NC	NC
ammonium Ion	4.94E-04	NA	NA	NC	NC
antimony	1.15E-05	NA	NA	NC	NC
arsenic	2.91E-06	4.30E-03	3.30E-03	7.89E-10	1.18E-09
barium	4.03E-03	NA	NA	NC	NC
bromine	5.11E-06	NA	NA	NC	NC
cadmium	5.08E-07	1.80E-03	4.20E-03	1.75E-10	2.63E-10
chlorine	3.18E-04	NA	NA	NC	NC
chromium (VI)	4.41E-06	1.20E-02	1.50E-01	5.44E-08	8.16E-08
cobalt	3.91E-06	NA	NA	NC	NC
copper	8.45E-04	NA	NA	NC	NC
lead	2.70E-05	NA	1.20E-05	2.66E-11	3.99E-11
manganese	2.57E-04	NA	NA	NC	NC
mercury	1.52E-06	NA	NA	NC	NC
nickel	4.95E-05	2.40E-04	2.60E-04	1.06E-09	1.59E-09
non-phosphate phosphorous	0.00E+00	NA	NA	NC	NC
phosphorus	4.80E-04	NA	NA	NC	NC
selenium	2.06E-06	NA	NA	NC	NC
silicon	5.62E-02	NA	NA	NC	NC
silver	0.00E+00	NA	NA	NC	NC
sulfates	2.87E-03	NA	NA	NC	NC
thallium	6.77E-07	NA	NA	NC	NC
vanadium	5.87E-05	NA	NA	NC	NC
zinc	2.68E-04	NA	NA	NC	NC
Diesel PM	1.66E-04	3.00E-04	3.00E-04	4.10E-09	6.14E-09
[1] Residential Maximum Grid No.	484		TOTAL	2.6E-07	3.8E-07

NA = Not Available
NC = Not Calculated
ug/m^3 = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day
Source: CDM Smith, 2017

Table 3-4.3
RAGS F Risk Calculation for LAX Landside Access Modernization Program, 2035 With Project vs. 2035 Without Project - Operations - Lifetime Exposure - School Child
(Based on Peak Location of Residential Cancer Risks[1])

Exposure Parameters	School Child
Exposure Time	8 (hrs/day)
Exposure Duration	6 (years)
Exposure Frequency	200 (days/year)
Averaging Time (non-carcinogenic)	52560 (hrs)
Averaging Time (carcinogenic)	613200 (hrs)

	Concentration at Location w/Maximum Risk (ug/m^3)	Toxicity Criteria		Cancer Risks		
		EPA Inhalation Unit Risk	CalEPA Inhalation Unit Risk	Cancer Risk to 6-yr School	Cancer Risk to 9-yr School	Cancer Risk to 12-yr School
TAC	2035	(ug/m^3)$^{-1}$	(ug/m^3)$^{-1}$	Child	Child	Child
1,2,4-trimethylbenzene	1.28E-02	NA	NA	NC	NC	NC
1,3-butadiene	7.21E-03	3.00E-05	1.70E-04	1.92E-08	2.88E-08	3.84E-08
2,2,4-trimethylpentane	3.05E-02	NA	NA	NC	NC	NC
acetaldehyde	3.76E-03	2.20E-06	2.70E-06	1.59E-10	2.38E-10	3.18E-10
acrolein	1.72E-03	NA	NA	NC	NC	NC
benzene	3.27E-02	7.80E-06	2.90E-05	1.49E-08	2.23E-08	2.97E-08
cumene	1.57E-04	NA	NA	NC	NC	NC
cyclohexane	8.15E-03	NA	NA	NC	NC	NC
ethylbenzene	1.39E-02	2.50E-06	2.50E-06	5.46E-10	8.18E-10	1.09E-09
ethylene	8.44E-02	NA	NA	NC	NC	NC
formaldehyde	2.10E-02	1.30E-05	6.00E-06	1.97E-09	2.96E-09	3.94E-09
hexane, n-	2.11E-02	NA	NA	NC	NC	NC
isoprene, except from vegetative	1.88E-03	NA	NA	NC	NC	NC
methyl alcohol	1.57E-03	NA	NA	NC	NC	NC
methyl ethyl ketone	3.13E-04	NA	NA	NC	NC	NC
naphthalene	6.27E-04	3.40E-05	3.40E-05	3.34E-10	5.00E-10	6.67E-10
propionaldehyde	4.70E-04	NA	NA	NC	NC	NC
propylene	4.06E-02	NA	NA	NC	NC	NC
styrene	1.57E-03	NA	NA	NC	NC	NC
toluene	7.63E-02	NA	NA	NC	NC	NC
xylene (total)	6.38E-02	NA	NA	NC	NC	NC
aluminum	1.81E-02	NA	NA	NC	NC	NC
ammonium Ion	4.94E-04	NA	NA	NC	NC	NC
antimony	1.15E-05	NA	NA	NC	NC	NC
arsenic	2.91E-06	4.30E-03	3.30E-03	1.50E-10	2.25E-10	3.00E-10
barium	4.03E-03	NA	NA	NC	NC	NC
bromine	5.11E-06	NA	NA	NC	NC	NC
cadmium	5.08E-07	1.80E-03	4.20E-03	3.34E-11	5.01E-11	6.68E-11
chlorine	3.18E-04	NA	NA	NC	NC	NC
chromium (VI)	4.41E-06	1.20E-02	1.50E-01	1.04E-08	1.55E-08	2.07E-08
cobalt	3.91E-06	NA	NA	NC	NC	NC
copper	8.45E-04	NA	NA	NC	NC	NC
lead	2.70E-05	NA	1.20E-05	5.07E-12	7.60E-12	1.01E-11
manganese	2.57E-04	NA	NA	NC	NC	NC
mercury	1.52E-06	NA	NA	NC	NC	NC
nickel	4.95E-05	2.40E-04	2.60E-04	2.02E-10	3.02E-10	4.03E-10
non-phosphate phosphorous	0.00E+00	NA	NA	NC	NC	NC
phosphorus	4.80E-04	NA	NA	NC	NC	NC
selenium	2.06E-06	NA	NA	NC	NC	NC
silicon	5.62E-02	NA	NA	NC	NC	NC
silver	0.00E+00	NA	NA	NC	NC	NC
sulfates	2.87E-03	NA	NA	NC	NC	NC
thallium	6.77E-07	NA	NA	NC	NC	NC
vanadium	5.87E-05	NA	NA	NC	NC	NC
zinc	2.68E-04	NA	NA	NC	NC	NC
Diesel PM	1.66E-04	3.00E-04	3.00E-04	7.80E-10	1.17E-09	1.56E-09
[1] Residential Maximum Grid No.	484		TOTAL	4.9E-08	7.3E-08	9.7E-08

NA = Not Available
NC = Not Calculated
ug/m^3 = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day
Source: CDM Smith, 2017

Table 3-4.4
RAGS F Risk Calculation for LAX Landside Access Modernization Program, 2035 With Project vs. 2035 Without Project - Operations - Lifetime Exposure - Off-Airport Worker
(Based on Peak Location of Commercial Cancer Risks[1])

Exposure Parameters	Residential Adult
Exposure Time	8 (hrs/day)
Exposure Duration	25 (years)
Exposure Frequency	250 (days/year)
Averaging Time (non-carcinogenic)	219000 (hrs)
Averaging Time (carcinogenic)	613200 (hrs)

	Concentration at Location w/Maximum Risk (ug/m^3)	Toxicity Criteria		Cancer Risks	
		EPA Inhalation Unit Risk	CalEPA Inhalation Unit Risk	Cancer Risk to 25-year	Cancer Risk to 40-year
TAC	2035	(ug/m^3)$^{-1}$	(ug/m^3)$^{-1}$	Worker	Worker
1,2,4-trimethylbenzene	2.33E-02	NA	NA	NC	NC
1,3-butadiene	1.30E-02	3.00E-05	1.70E-04	1.81E-07	2.89E-07
2,2,4-trimethylpentane	5.53E-02	NA	NA	NC	NC
acetaldehyde	6.81E-03	2.20E-06	2.70E-06	1.50E-09	2.40E-09
acrolein	3.12E-03	NA	NA	NC	NC
benzene	5.93E-02	7.80E-06	2.90E-05	1.40E-07	2.24E-07
cumene	2.84E-04	NA	NA	NC	NC
cyclohexane	1.48E-02	NA	NA	NC	NC
ethylbenzene	2.52E-02	2.50E-06	2.50E-06	5.15E-09	8.23E-09
ethylene	1.53E-01	NA	NA	NC	NC
formaldehyde	3.80E-02	1.30E-05	6.00E-06	1.86E-08	2.98E-08
hexane, n-	3.83E-02	NA	NA	NC	NC
isoprene, except from vegetative	3.40E-03	NA	NA	NC	NC
methyl alcohol	2.84E-03	NA	NA	NC	NC
methyl ethyl ketone	5.67E-04	NA	NA	NC	NC
naphthalene	1.13E-03	3.40E-05	3.40E-05	3.15E-09	5.03E-09
propionaldehyde	8.51E-04	NA	NA	NC	NC
propylene	7.35E-02	NA	NA	NC	NC
styrene	2.84E-03	NA	NA	NC	NC
toluene	1.38E-01	NA	NA	NC	NC
xylene (total)	1.15E-01	NA	NA	NC	NC
aluminum	4.19E-02	NA	NA	NC	NC
ammonium Ion	1.14E-03	NA	NA	NC	NC
antimony	2.66E-05	NA	NA	NC	NC
arsenic	6.73E-06	4.30E-03	3.30E-03	1.81E-09	2.90E-09
barium	9.33E-03	NA	NA	NC	NC
bromine	1.39E-05	NA	NA	NC	NC
cadmium	1.18E-06	1.80E-03	4.20E-03	4.02E-10	6.44E-10
chlorine	1.03E-03	NA	NA	NC	NC
chromium (VI)	1.03E-05	1.20E-02	1.50E-01	1.26E-07	2.02E-07
cobalt	1.11E-05	NA	NA	NC	NC
copper	1.96E-03	NA	NA	NC	NC
lead	6.24E-05	NA	1.20E-05	6.11E-11	9.77E-11
manganese	5.97E-04	NA	NA	NC	NC
mercury	3.53E-06	NA	NA	NC	NC
nickel	1.17E-04	2.40E-04	2.60E-04	2.47E-09	3.96E-09
non-phosphate phosphorous	0.00E+00	NA	NA	NC	NC
phosphorus	1.11E-03	NA	NA	NC	NC
selenium	4.77E-06	NA	NA	NC	NC
silicon	1.30E-01	NA	NA	NC	NC
silver	0.00E+00	NA	NA	NC	NC
sulfates	8.54E-03	NA	NA	NC	NC
thallium	1.57E-06	NA	NA	NC	NC
vanadium	1.36E-04	NA	NA	NC	NC
zinc	6.23E-04	NA	NA	NC	NC
Diesel PM	2.28E-04	3.00E-04	3.00E-04	5.57E-09	8.91E-09
[1] Residential Maximum Grid No.	888		TOTAL	4.9E-07	7.8E-07

NA = Not Available
NC = Not Calculated
ug/m^3 = micrograms per cubic meter
mg/kg-d = milligrams per kilogram day
Source: CDM Smith, 2017

Los Angeles
World Airports