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February 13, 2019

The Honorable Herb J. Wesson, Jr.  
President  
Los Angeles City Council

c/o Holly L. Wolcott  
City Clerk  
City Hall Room 360

**BRIDGE HOUSING ON 1426 S. PALOMA STREET (CF 19-0106) CALIFORNIA  
ENVIRONMENTAL QUALITY ACT NOTICE OF EXEMPTION (NOE)**

Dear President Wesson and Honorable Members:

On January 3, 2019, the City Council adopted a report from the Homelessness and Poverty Committee, dated December 17, 2018, relative to the evaluation of development on the above-referenced property for the temporary use as bridge housing for those experiencing homelessness.

**RECOMMENDATION**

Staff recommends that the City Council determine the Bridge Housing Project on 1426 S. Paloma Street, which allows the development and use of the property as a temporary shelter, is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Article 19, Sections 15303, Class 3(e), 15332 Class 32; and the City of Los Angeles CEQA Guidelines, Art. III, Sec. 1, Class 3(6). Refer to the attached NOE.

If you have any questions, please contact Allan Kawaguchi at (213) 485-4687.

Sincerely,

Gary Lee Moore, PE, ENV SP  
City Engineer

GLM/AK/mem

Q:\Eileen\CD 14 1426 S Paloma St Bridge Housing\_Cental City\NOE for Council and Filing\Transmittal to Council Bridge Housing on Paloma Street.doc

Attachment



COUNTY CLERK'S USE

**CITY OF LOS ANGELES  
OFFICE OF THE CITY CLERK  
ROOM 395, CITY HALL  
LOS ANGELES, CALIFORNIA 90012  
CALIFORNIA ENVIRONMENTAL QUALITY ACT  
NOTICE OF EXEMPTION  
(Articles II and III – City CEQA Guidelines)**

CITY CLERK'S USE

Submission of this form is optional. The form shall be filed with the County Clerk, 12400 E. Imperial Highway, Norwalk, California, 90650, pursuant to Public Resources Code Section 21152(b). Pursuant to Public Resources Code Section 21167(d), the filing of this notice starts a 35-day statute of limitations on court challenges to the approval of the project.

<b>LEAD CITY AGENCY AND ADDRESS:</b> City of Los Angeles c/o Bureau of Engineering, 1149 S. Broadway, MS 939, Los Angeles, CA 90015	<b>COUNCIL DISTRICT</b> 14
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<b>PROJECT TITLE:</b> CD 14 1426 S. Paloma Street Bridge Housing	<b>LOG REFERENCE</b> C. F. 19-0106
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**PROJECT LOCATION:** 1416 - 1426 South Paloma Street, Los Angeles, CA 90021 T.G. 634 F7

**DESCRIPTION OF NATURE, PURPOSE, AND BENEFICIARIES OF PROJECT** The project is a homeless shelter located on an approximately 1.15-acre site that has a range of addresses including 1416, 1420 & 1426 South Paloma Street, Los Angeles, CA 90021, in the City of Los Angeles in Council District 14. The site is currently developed with 21-space surface parking lot, a 21-foot tall one-story 35,835 square-foot warehouse building that has two separate business spaces that are divided by an interior wall. The site includes seven (7) lots that are tied and share a common Assessor Parcel No. (APN) 5132-022-036. The proposed project scope includes the rehabilitation of a portion of the warehouse structure on the three northerly lots that total approximately 7,150 square feet. This includes up to approximately 13,807 square-feet of the warehouse building and an approximately 4,110 square-foot paved 11-space surface parking lot and outside space, for a project total of up to approximately 17,917 square-feet. The purpose of the project is to provide shelter for men and women, but not families or children. The project design plan includes tenant improvements for a 119 cubicle/bed homeless shelter (96 cubicles for men, 23 cubicles for women); including the renovation, upgrade, operations and maintenance activities associated with reuse of the existing warehouse. Interior tenant improvements include new walls/room partitions to create sleeping cubicles, offices, bathrooms and a warming kitchen. The project includes new plumbing, upgrades to meet American with Disabilities Act (ADA) requirements and interior signage. Proposed exterior tenant improvements include additional heating ventilation and air conditioning (HVAC) units on the roof and associated duct work as well as lighting, signage and paint. In addition, a new door would be included in the front of the building as well as a new door on the north façade with access to a new 2,300 square-foot enclosed exterior patio with new fencing and a shade structure. No grading or earthwork is anticipated. The City of Los Angeles plans to lease the 1426 Paloma project site from the existing owner and to undertake the proposed rehabilitation. The County of Los Angeles Department Health Services (DHS) authorized allocation of funding for operation of the proposed project. Home at Last, Community Development Corporation (CDC) a non-profit organization would operate the shelter. On \_\_\_\_\_, the City Council determined this action was exempt from CEQA and approved the project.

**CONTACT PERSON:** Maria Martin **TELEPHONE NUMBER:** 213-485-5753

<b>EXEMPT STATUS: (Check One)</b>	<b>CITY CEQA GUIDELINES</b>	<b>STATE CEQA GUIDELINES</b>
<input type="checkbox"/> MINISTERIAL	Art. II, Sec. 2.b	Sec. 15268
<input type="checkbox"/> DECLARED EMERGENCY	Art. II, Sec. 2.a(1)	Sec. 15269(a)
<input type="checkbox"/> EMERGENCY PROJECT	Art. II, Sec. 2.a(2)(3)	Sec. 15269(b)(c)
<input type="checkbox"/> GENERAL EXEMPTION	Art. II, Sec. 1	Sec. 15061(b)(3)
<input checked="" type="checkbox"/> CATEGORICAL EXEMPTION*	Art. III, Sec.1. Class 3(6)	Sec. 15303(e) Sec. 15332
<input type="checkbox"/> STATUTORY*	Art. _____	Sec. _____

\* See Public Resources Code Sec. 21080 and set forth state and city guidelines provisions.

**JUSTIFICATION FOR PROJECT EXEMPTION:** CEQA Article 19, Section 15303, Class 3 (e) New construction of small accessory structures, and Section 15332, Class 32 Infill Development Projects. The project is also categorically exempt under the City of Los Angeles CEQA Guidelines, Art. III, Sec. 1, Class 3(6) New construction of small accessory structures. None of the limitations set forth in State CEQA Guidelines 15300.2 apply, see attached narrative.

**IF FILED BY APPLICANT, ATTACH CERTIFIED DOCUMENT OF EXEMPTION FINDING**

<b>SIGNATURE:</b> Maria Martin	<b>TITLE:</b> Environmental Affairs Officer Environmental Management Group	<b>DATE:</b>
<b>FEE:</b> \$75.00 _____	<b>RECEIPT NO.</b>	<b>REC'D BY</b>
		<b>DATE</b>

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## CATEGORICAL EXEMPTION NARRATIVE

### I. PROJECT DESCRIPTION

The project is a homeless shelter located on an approximately 1.15-acre site that has a range of addresses at 1416, 1420 & 1426 South Paloma Street, Los Angeles, CA 90021 in the Central City Community Plan Area of the City of Los Angeles in Council District 14. The site is currently developed with a surface parking lot, a 21-foot tall one-story 35,835 square-foot warehouse building that has two separate business spaces that are divided by an interior wall. The site includes seven (7) lots that are tied and share a common Assessor Parcel No. (APN) 5132-022-036.

The proposed project scope includes the rehabilitation of the three northerly lots that total up to approximately 7,150 square feet. This includes up to approximately 13,807 square-feet of the warehouse building that traverses over two lots and one lot that will be improved with an approximately 4,110 square-foot paved 11-space parking lot and outside space that includes an new approximately 2,300 square-foot enclosed patio with fencing and a shade structure, for a project total of up to approximately 17,917 square feet. *Figure 1 – Project Location* shows an aerial view of the project site and area. The southerly space of the warehouse building will remain as a women’s clothing distribution use and is not part of this project.

The purpose of the project is to provide shelter for men and women, but not families or children. Families and children are housed at different facilities with facilities better suited to their needs. Individual residents are anticipated to stay for 6 months or less time as they transition to permanent supportive housing or other housing options.

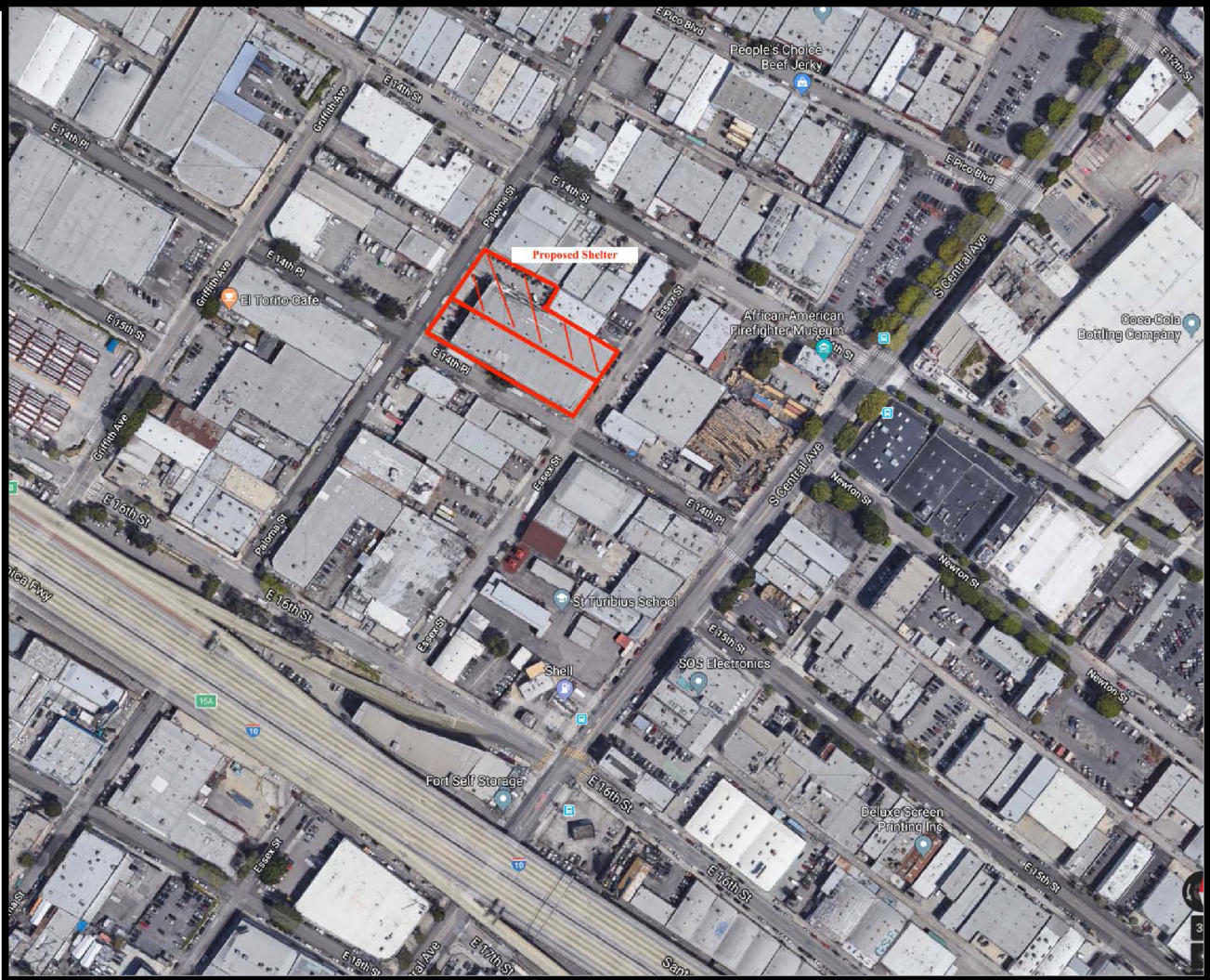
The project design plan includes tenant improvements for a 119 cubicle/bed homeless shelter (96 cubicles for men, 23 cubicles for women); including the renovation, upgrade, operations and maintenance activities associated with reuse of the existing warehouse. Interior tenant improvements include new walls/room partitions to create sleeping cubicles, offices, bathrooms and a warming kitchen. The project includes new plumbing for the men’s and women’s bathrooms, upgrades to meet ADA requirements and interior signage. Proposed exterior tenant improvements include additional heating ventilation and air conditioning (HVAC) units on the roof and associated duct work as well as lighting, signage and paint (including a mural on the side of the building). In addition, a new door would be included in the front of the building as well as a new door on the north façade with access to a new enclosed exterior patio with fencing and a shade structure. Parking at the site will decrease from the existing 21 parking spaces to 11 parking spaces in order to use approximately 2,300 square feet of the existing parking lot for an enclosed patio space. *Figure 2 – Project Site Plan* shows the proposed site plan.

The project site is zoned M2-2D with a Light Manufacturing land use designation and is located west of the intersection of Central Avenue and Pico Boulevard. Parcels to the north, east, west, and south of the site are zoned for industrial land uses and are located approximately 1 mile east of the Los Angeles Convention Center. Currently the project site is paved with one tree located on the southerly side of the site. The project is located in a Transit Priority Area and is generally bounded by 14<sup>th</sup> Street to the north, 14<sup>th</sup> Place to the south, Griffith Avenue to the West, and Essex Street to the east. The nearest transit access to and from the site is located at 14<sup>th</sup> Street and Central, approximately 954 feet from the project site. 14<sup>th</sup> Street is designated as an “Avenue III” (i.e., right of way width of 100 feet and roadway width of 70 feet) in the Los

## Anges Mobility Plan.

The City of Los Angeles plans to lease the 1426 Paloma space from the existing owner and to undertake the proposed rehabilitation. The County of Los Angeles Department of Health Services (DHS) proposes to fund ongoing operations. Home at Last, Community Development Corporation (CDC) a non-profit organization would operate the shelter.

**FIGURE 1 - PROJECT LOCATION**





## II. PROJECT HISTORY

In the City and County of Los Angeles, the presence of the unsheltered homeless population has been growing over the years, as well as homeless encampments. Because of this, in some areas of the city, access to public places, access routes, and businesses has been hindered, and although there are a growing number of support services to help the homeless find their way off the streets, more services are needed. The latest homeless count in the project area was completed by the Data and Research Unit of the Los Angeles Homeless Services Authority. See *Table 1 – Homeless Population Count* for the homeless population count prepared by this Unit on February 6, 2019 for the associated census tract (Tract No. 226002) of the project site and for various radii from the site. (Reference 3)

*Table 1 – Homeless Population Count*

<b>Homeless Population</b>	<b>Within Census Tract (226002)</b>	<b>.5 miles</b>	<b>1 mile</b>	<b>1.5 miles</b>
Unsheltered	571	394	1,936	3,417
Sheltered	0	0	1,246	2,095
<b>Total</b>	<b>571</b>	<b>394</b>	<b>3,182</b>	<b>5,512</b>

Over the years, as the homeless population grew, other similar services to that of the project have developed in the general area (within 5 miles) of the proposed project, as listed in the Homeless Shelter Directory (Reference 5)

- 1) **Hope for Homeless Youth**, 2406 Kent Street, Los Angeles, CA 90026. Hope for Homeless Youth provides free shelter and rehab programs for troubled youths of the inner city. They target teenage prostitutes, runaways, drug and alcohol addicts, and gang members.
- 2) **Angel's Flight Youth Shelter** 357 S. Westlake Ave, Los Angeles, CA 90057. Angel's Flight Youth Shelter is a temporary shelter for homeless, runaway, and at risk youth ages 10-17. They provide a safe and healthy residence for the youth, with their primary goal being family reunification.
- 3) **Good Shepherd Center for Homeless Women**, 267 Belmont Ave, Los Angeles, CA 90059. Good Shepherd Center for Homeless Women is a transitional housing residence. They currently have openings and requirements are that residents must be employed a minimum of 20 hours a week.
- 4) **Zahn Memorial Center**, 832 W. James M. Wood Blvd, Los Angeles, CA 90015. The Salvation Army's Zahn Memorial Center is the only emergency shelter for families in downtown Los Angeles, and provides individuals in crisis with an immediate, safe place to stay and the resources to begin getting their lives back on track. The Zahn program provides 90 days of emergency housing to 18 chronically homeless families with special needs.

- 5) **Friends Helping Friends LA Transitional Housing**, 3701 Cherrywood Ave, Los Angeles, CA 90018. The mission at Friends Helping Friends is to provide safe and comfortable housing to those who are homeless and those at risk of homelessness. They are dedicated to breaking the cycle of homelessness by providing the resources and support necessary to promote positive, healthy and independent living.
- 6) **Salvation Army Hope Harbor Los Angeles**, 6200 Hooper Ave, Los Angeles, CA 90001. Hope Harbor was founded in 1978 to provide continuing support for men and women who successfully graduated from Salvation Army recovery programs. The facility's framework offers substance abuse treatment for those who have already gone through detox, as well as residential support and follow-up services for approximately 58 men.
- 7) **Ella's Foundation Homeless Services**, 3175 S. Hoover St. Suite 113, Los Angeles, CA 90007. This service provides a fifty bed shelter to help homeless individuals in need. They also assists many in finding more acute care facilities, while striving to move all guests into semi-permanent housing.
- 8) **Veterans Helping Veterans**, 6200 Hooper Ave, Los Angeles, CA 90001. This program assists veterans and mentally disabled persons to prevent homelessness and educate and prevent alcohol and drug abuse.
- 9) **City of Refuge Rescue Mission Personal Good Service**, 823 W. Manchester Blvd., Los Angeles, CA 90044. This program provides personal goods for people who live in zip code 90044 and surrounding areas. Services include clothing for people who are referred by a community service agency.
- 10) **WLCAC Homeless Access Center**, 10950 S. Central Ave., Watts, CA 90059. This program provides a homeless access center for homeless individuals and families who are in the South Central area of Los Angeles. Services include case management, comprehensive information, referral to community services, clothing, and telephone facilities.

The above services are local and provide similar services as those of the proposed project, such as educational and vocational support, training, job placement, hygiene, housing referrals, etc.

### III ENVIRONMENTAL REVIEW

#### A. Basis for Categorical Exemption

A project qualifies for a *State Guidelines, Section 15303, New Construction of Small Structures Class 3* exemption if it consists of construction of new small facilities. Also, *State Guidelines, Class 3(e)* includes new construction of an accessory (appurtenant) structure. A project qualifies for *City Guidelines, Class 3, New Construction of Small Structures* exemption if it includes the construction of new small facilities and structures. Additionally, *City Guidelines Class 3(6)* includes accessory (appurtenant) structures including garages and fences. The project involves installation of small new equipment and facilities in an approximately 17,917 square-foot

warehouse building, including new partitions, new HVAC and duct work, new kitchen and bathroom fixtures and appliances in the structure. Minor modifications are proposed to the existing exterior of the structure (including new HVAC and duct work on the roof, closing off loading dock doors and creation of new access doors, and painting). The project also includes a new enclosed outdoor patio with new fencing and a new shade structure. As such, this project is consistent with the application of this exemption and it is being applied.

A Project qualifies for a *State CEQA Guidelines Section 15332 (Class 32)* exemption if it consists of projects characterized as infill site development and meets the five (5) conditions, which are met by the Project, as described as follows:

(a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with the applicable zoning designation and regulations:

The project site includes a parcel that is composed of three lots. This property is located within the Central City Community Plan Area of the City of Los Angeles within Council District 14, APN is 5132-022-036, located just west of the intersection of Central Avenue and Pico Boulevard. The Project site is zoned M2-2D (Light Manufacturing) with a Limited Manufacturing land use designation. The City of Los Angeles Mayor and the City Council have declared an emergency shelter crisis within the City of Los Angeles. Per LAMC Section 12.80, a shelter for the homeless may be established and operated on property owned or leased by the City of Los Angeles in any zone as a matter of right without regard to the number of beds or number of persons served. As such, this project is consistent with the site's M2-2D (Light Manufacturing) zoning and the Limited Manufacturing land use designation.

(b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses:

The project site is located wholly within an urban area of the City, is approximately 1.15 acres in size and is zoned M2-2D (Light Manufacturing), in the Central City Community Plan Area of the City of Los Angeles. The parcel is generally bounded by 14<sup>th</sup> Street to the north, 14<sup>th</sup> Place to the south, Griffith Avenue to the West, and Essex Street to the east. Parcels to the north, east, west, and south of the site are zoned for, and currently developed with urban industrial land uses. Since the site is in an urban environment, with a limited manufacturing land use, and in a highly urbanized area within Central City area of the City of Los Angeles, it is considered to be substantially surrounded by urban uses. The project occurs within City limits, is on a project site of no more than five acres, and is substantially surrounded by urban uses, therefore, the project is consistent with this second condition to qualify as an in-fill exempt project.

(c) The project site has no value as habitat for endangered, rare or threatened species:

The project site is urban in nature and is substantially surrounded by urban uses and has no value as habitat for endangered, rare or threatened species. The site is occupied by an industrial warehouse and paving, and thus provides no habitat for plants and wildlife. In addition, the site is not mapped within a Los Angeles County Significant Ecological Area as referenced in the Central City Community Plan (Reference 9). There is a large *figus* tree located in the greenway next to the sidewalk and street south of the project site that does not provide habitat for protected species other than potential nesting habitat for birds. In general, birds are nesting during the period February 1 through August 31. Over 900 species of migratory birds are protected under the Federal Migratory Bird Treaty Act (MBTA) (*Title 33, United States Code, Section 703 et seq., see also Title 50, Code of Federal Regulation, Part 10*) and Section 3503 of the California Department of Fish and Game Code protects nests of all

birds (except English sparrows and European starlings). These regulations ensure protection of nesting birds. The *ficus* tree would not be impacted by construction; most construction activities would be internal to the building except for painting, installation of an enclosed patio and shade structure and the installation of HVAC equipment on the roof. These activities would be no more disruptive than existing street traffic and activities. No protected trees, as identified in the City's protected tree ordinance, are located on the project site.

Comprehensive regulations and standards have been established by federal, state, and local agencies to protect and conserve biological resources:

#### Federal Regulations and Standards

- *Federal Endangered Species Act (FESA)*
- *Migratory Bird Treaty Act (MBTA)*
- *Clean Water Act (CWA)*

#### State Regulations and Standards

- *California Fish and Game Code (CFG)*
- *Porter-Cologne Water Quality Control Act*
- *California Environmental Quality Act (CEQA)*

#### Local Regulations and Standards

- *Significant Ecological Areas (SEA) Program – County of Los Angeles*
- *City of Los Angeles Tree Ordinance*

With compliance to standard regulations in regards to the avoidance and minimization of potential impacts to protected migratory and other protected birds, the proposed project is not anticipated to conflict with any of the regulations and standards above and, therefore, is compliant with the relevant regulations and standards listed.

Because no habitat for endangered, rare, and threatened species exist onsite and with the application of standard regulatory specifications as described, this project is consistent with the third condition that qualifies the project for an in-fill project for exemption.

(d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality:

#### ***(d)(1) Transportation***

The project site is located in the South Markets area of the Central City community in the City of Los Angeles. The project will convert half of an existing warehouse building into a homeless shelter housing facility. The warehouse building traverses over three lots. Currently, there are 21 parking spaces on an existing surface parking lot. There will be a decrease of parking down to 11 parking spaces on one of the three lots. However, the site is within a Transit Priority Area and is generally bounded by 14<sup>th</sup> Street to the north, 14<sup>th</sup> Place to the south, Griffith Avenue to the West, and Essex Street to the east. The nearest transit access to and from the site is located at 14<sup>th</sup> Street and Central, approximately 954 feet from the project site. 14<sup>th</sup> Street is an Avenue III (i.e., right of way width of 100 feet and roadway width of 70 feet) in the Los Angeles Mobility Plan.

*State Regulations:* The Los Angeles Congestion Management Program (CMP) is a state-mandated program enacted by the State Legislature with the passage of Proposition 111 in

1990, administered by the Los Angeles County Metropolitan Transportation Authority (Metro). The purpose of the CMP is to develop a coordinated approach to managing and decreasing traffic congestion by linking the various transportation, land use, and air quality planning programs throughout the County. One required element of the CMP is a process to evaluate the transportation and traffic impacts of large projects on the regional transportation system. That process is undertaken by local agencies, project applicants, and traffic consultants through a transportation impact report usually conducted as part of the CEQA project review process.

*The 2010 Congestion Management Program (CMP) for the County (adopted October 28, 2010) was developed in part to link local land use decisions with their impacts on regional transportation. The CMP identifies a system of highways and roadways, with minimum levels of service performance measurements designated at LOS E (unless exceeded in base year conditions) for highway segments and key roadway intersections on this system. A traffic impact analysis (TIA) is required for projects that generate at least 50 new trips at CMP intersections during the peak hour or 150 trips to mainline freeway locations. The analysis must: investigate measures which will mitigate the significant CMP system impacts; develop cost estimates, including the fair share costs to mitigate impacts of the proposed project; and, indicate the responsible agency. Selection of final mitigation measures is left at the discretion of the local jurisdiction. Once a mitigation program is selected, the jurisdiction self-monitors implementation through the existing mitigation monitoring requirements of CEQA.*

*Local Regulations:* The City updated the *Transportation Element of the City's General Plan*, now referred to as *Mobility plan 2035 (MP 2035)*, to reflect policies and programs that will lay the policy foundation for safe, accessible, and enjoyable streets for pedestrians, bicyclists, transit users, and vehicles throughout the City of Los Angeles. The MP 2035 and Final EIR were adopted on August 11, 2015 and is compliant with the 2008 Complete Streets Act, which mandates that the circulation element of a city's General Plan be modified to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways, defined to include motorists, pedestrians, bicyclists, children, person with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban or urban context of the general plan.

The Mobility Element includes a discussion of the existing roadway infrastructure in the City of Los Angeles. Goals, objectives and policies are included in the transportation element to ensure the efficient circulation with the city and region.

*Thresholds:* The *City's CEQA Threshold Guide's* (Reference 11) screening criteria is to analyze if the project will generate and/or cause a diversion or shift of 500 or more daily vehicle trips and 43 vehicles or more during a.m. and p.m. peak hours on the street system, above which, LADOT requires further study to determine impacts.

*Trip Generation:* A site specific Traffic Review Study was performed on October 4, 2018. A review of project trip generation and potential traffic impacts of the project was undertaken. The proposed project would generate approximately 151 daily weekday vehicle trips, including 14 a.m. peak hour trips and 14 p.m. peak hour trips. (In order to present a conservative analysis, the number of trips analyzed is not a net increase from the existing use; subtracting existing trips would result in even fewer new trips.) Based on the potential for increased trips to significantly impact local traffic, the LADOT minimum trip generation standards for traffic studies are 25 peak-hour trips or more for focused traffic studies and 43 peak-hour trips or more for full traffic studies. Below these levels potential impacts to local traffic are not anticipated. The County of Los Angeles Department of Public Works (DPW) minimum standard requirement for traffic studies is 500 or more daily trips. Therefore, a traffic impact study or a CMP consistency

finding is not required by LADOT or County DPW for this project and significant impacts to traffic would not occur.

**Construction:** Construction activities would generate a negligible expansion of use with similar levels of traffic compared to existing operations of the warehouse and less than would occur with the proposed shelter. Construction activities would include delivery of equipment and other materials (HVAC, dividing walls, bathroom and kitchen fixtures and appliances, beds and furniture), interior demolition, construction of partitions, placement of HVAC equipment on the roof, construction of an enclosed outside patio with fencing and a shade structure, painting and other similar activities necessary to rehabilitate and convert the building to the proposed use.

**Operations:** The existing warehouse use in the northerly space of the warehouse building currently has about 5 employees. Existing operations include five to six trucks arriving and departing the warehouse each day. The proposed shelter would operate 24 hours a day accommodating 119 people (96 men and 23 women) and would be staffed in shifts. There would be three typical shifts for shelter employees, with 30 during the day shift (7 am to 4 pm), 20 during the evening shift (3 pm to midnight), and 10 during a night shift (11 am to 8 am). The project would generate approximately 151 daily weekday vehicle trips, including 14 a.m. peak hour trips and 14 p.m. peak hour trips. These projected vehicle trips for the proposed project fall below the 25 a.m. or p.m. peak hour vehicle trip thresholds indicated in the criteria above. Based on this determination, the proposed project would have no significant effect related to transportation. The southerly space of the warehouse building has about 10 employees and daily operations include 10 trucks arriving and departing the warehouse each day. Operations of this use would continue as at present.

Therefore, no significant effect to direct or indirect transportation resources is anticipated. In addition, after review of project information and associated technical analyses, no unusual circumstances are known to this office that would cause a significant effect due to unusual circumstances. Therefore, this exception has no application here.

#### ***(d)(2) Air Quality***

The project site is located in the Central City which is a downtown community of the City of Los Angeles. The project site is within the South Coast Air Basin (SCAB). The climate in the SCAB is mild and tempered by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The project site lies at an elevation of approximately 285 feet above sea level. Terrain features are primarily a desert basin surrounded by the San Gabriel Mountain range. The climate in the Basin is mild and tempered by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds.

**Sensitive Receptors:** The closest sensitive receptor within 500 feet of the site is a private school located on parcels zoned M2-2D with a Light Manufacturing land use, about 300 feet to the southeast behind the project site. Existing development adjacent to the site consists of mostly industrial uses.

SCAB is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD monitors air quality within the Basin. The SCAQMD is tasked with preparing regional programs and policies designed to improve air quality within the SCAB, which are assessed and published in the form of the South Coast Air Quality Management Plan (SCAQMP). These plans are known as State Implementation Plans (SIPs). SIPs are

comprehensive plans that describe how an area will attain national ambient air quality standards (NAAQS).

The California SIP is updated every four years to evaluate the effectiveness of the adopted programs and policies and to forecast attainment dates for nonattainment pollutants. The most recent publication is the 2018 SIP Update, which is intended to serve as a regional blueprint for achieving the federal air quality standards and healthful air. The 2018 SIP update represents a thorough analysis of existing and potential regulatory control options, and includes available, proven, and cost-effective strategies to pursue multiple goals in promoting reductions in GHG emissions and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The 2018 SIP Update focuses on demonstrating NAAQS attainment dates for the 2016 8-hour ozone (O<sub>3</sub>) standard and the 2016 annual fine particulate matter less than 2.5 microns in diameter (PM<sub>2.5</sub>) standard.

The primary purpose of an air quality plan is to bring an area that does not attain NAAQS and California Ambient Air Quality Standards (CAAQS) into compliance with those standards pursuant to the requirements of the Clean Air Act and California Clean Air Act. NAAQS and CAAQS have been established for the following criteria pollutants: O<sub>3</sub>, carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), respirable particulate matter less than 10 microns in diameter (PM<sub>10</sub>), PM<sub>2.5</sub>) and lead (P<sub>b</sub>). Because O<sub>3</sub> is not directly emitted in the air—rather it is formed by chemical reactions between nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOC) in the presence of sunlight—air quality regulations focus on ozone’s precursors. These pollutants are common byproducts of human activities and have been documented through scientific research to cause adverse health effects. State regulatory programs also cover toxic air contaminants (TAC); some criteria air pollutants are also TACs or may include certain TACs in their general definition. In California, motor vehicle travel is a major source of TACs.

The City of Los Angeles General Plan Air Quality Element sets forth the goals, objectives, and policies which guide the City in the implementation of its air quality improvement programs and strategies.

Goal AQ-1 of the Air Quality Element is to provide “good air quality and mobility in an environment of continued population growth and healthy economic structure.” The following objectives are applicable to the Proposed Project:

Objective AQ-1.1: To reduce air pollutants consistent with the AQMP, increase traffic mobility, and sustain economic growth citywide.

Objective AQ-1.3: To reduce particulate air pollutants emanating from unpaved areas, parking lots, and construction sites.

In October 2018, Bureau of Engineering conducted an air analysis for a new homeless shelter on a 1.3 acre site located at 2316 Imperial Highway, Los Angeles, CA 90059. This project includes approximately 20,000 square feet of new construction that has a similar, but broader scope for construction of a homeless facility within the SCAB that demonstrates a worst case scenario and reference point for comparison to the proposed project at 1426 Paloma Street, Los Angeles, CA 90021. See *Attachment A, Air Quality Resources Screening for 2316 East Imperial Highway Bridge Housing for reference.*

The California Air Pollution Control Officers Association’s (CAPCOA) California Emissions Estimator Model (CalEEMod), Version 2013.2.2, was used in this air quality analysis to quantify emissions from anticipated construction and operations activities (CAPCOA, 2013). The CalEEMod model is approved by SCAQMD. CalEEMod uses emission factors for on-site and off-site emissions. The 2316 Imperial Highway Bridge Housing Project construction-related and operation-related criteria air pollutant emissions were estimated using CalEEMod then

compared to SCAQMD’s Mass Daily Threshold (MST), a regional daily emission threshold for both on-site and off-site construction and operations activities and SCAQMD’s Localized Significance Threshold (LST), a local threshold that only applies to construction-related and operations-related on-site emissions to determine significance. For projects less than five acres in area, the SCAQMD has developed look-up tables showing the maximum daily on-site emissions that would not cause an exceedance of any LST.

MSTs for both on-site and off-site construction and operations activities for the 2316 Imperial Highway Bridge Housing Project are listed in *Table 2 - Mass Daily Thresholds*.

<b>Table 2 – Mass Daily Thresholds (lbs./day)</b>		
<b>Pollutant</b>	<b>Construction</b>	<b>Operations</b>
NO <sub>x</sub>	100	55
VOC	75	55
PM <sub>10</sub>	150	150
PM <sub>2.5</sub>	55	55
SO <sub>x</sub>	150	150
CO	550	550
Pb	3	3
Source: SCAQMD CEQA Handbook (SCAQMD, 1993)		

SCAQMD has developed Localized Significance Threshold (LST) methods to determine, without dispersion modeling, if a project would cause or contribute to an exceedance of the applicable ambient air quality standard. The LST methods are based on the maximum daily allowable construction-related and operations-related onsite emissions, the total area of the emissions source, the ambient air quality in each sensitive receptor in which the emission source is located, and the distance to the nearest exposed individual. For projects less than five acres in area, the SCAQMD has developed look-up tables showing the maximum daily on-site emissions that would not cause an exceedance of any LST. Proposed project on-site emissions should be less than the LST values in order for the proposed activity to not violate or substantially contribute to an existing or projected air quality standard.

The LST methodology was used to assess localized on-site emissions of criteria air pollutants and precursors during construction and operation of the project. The LST analysis does not include off-site emissions from construction or operations vehicle travel on public roadways. SCAQMD’s LST methods were used in this analysis to evaluate ambient air quality impacts from proposed project construction.

The 2316 Imperial Highway Bridge Housing Project emissions analysis is being used for comparison to the 1426 Paloma Street Bridge Housing Project, because it is a similar homeless shelter project that includes a broader scope. The LS South Central Los Angeles County Sensitive Receptor Area 12 (SRA 12) thresholds were used for the 2316 Imperial Highway Bridge Housing Project as shown in *Table 3 – Localized Significance Threshold for SRA 12*.

<b>Table 3 - Localized Significance Threshold for SRA 12 (lbs/day)</b>						
<b>Phase</b>	<b>VOC</b>	<b>NOx</b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Construction	--	46	231	--	4	3
Operations	--	7446	231	--	1	1
Notes: Assumes a 1-acre project site and a 25-meter receptor distance for Source Receptor Area 12. SCAQMD has not developed an LST for VOC emissions.						

The 2316 Imperial Highway Bridge Housing Project site encompasses an area of approximately 1.3 acres; the LST analysis conservatively assumed a 1-acre site because that is the smallest site for which LSTs are available. Distance to the nearest sensitive receptor was assumed to be 25 meters because that is the smallest source-receptor distance provided for the LSTs; actual distances to nearby sensitive receptors would generally be greater than 25 meters.

The Central LA SRA 1 was used for the 1426 Paloma Street Bridge Housing Project as shown in *Table 4 - Localized Significance Threshold for SRA 1*.

<b>Table 4 - Localized Significance Threshold for SRA 1 (lbs/day)</b>						
<b>Phase</b>	<b>VOC</b>	<b>Nox</b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Construction	--	82	1,259	--	33	10
Operations	--	82	1,259	--	8	3
Notes: Assumes a 1-acre project site and a 100-meter receptor distance for Source Receptor Area 1. SCAQMD has not developed an LST for VOC emissions.						

The 1426 Paloma Street Bridge Housing Project site encompasses an area of approximately 1.15 acres; the LST analysis conservatively assumed a 1-acre site because that is the smallest site for which LSTs are available. Distance to the nearest sensitive receptor was assumed to be 100 meters because that is the equivalent to the source-receptor distance provided for the LSTs.

*Construction Assumptions:*

The overall time to remodel the warehouse is anticipated to be 4 to 6 months. The construction of the outside space will take over one to two days. It is assumed that no grading or earthwork will be required. Emissions from 2316 Imperial Highway Bridge Housing Project that are comparable to the 1426 Paloma Street Bridge Housing Project would be associated with delivery vehicles and construction workers. These comparable emissions were quantified for onsite construction equipment and offsite sources (haul trucks) transiting within the South Coast Air Basin. These estimated peak-day emissions assume overlaps of construction tasks, based on a broader anticipated construction schedule and equipment utilization. Comparable construction equipment exhaust, fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>), and motor vehicle travel to and from the site were modeled. Comparable offsite construction emissions were estimated for worker commutes and haul trucks.

Comparable construction activity-generated air pollutant activities include typical on-road vehicles including, but not be limited to, flat bed and haul trucks and asphalt trucks. These emissions sources would primarily use diesel fuel, emitting combustion exhaust gases such as volatile organic compounds (VOC), CO, nitrogen oxides (NO<sub>x</sub>), sulfur oxides (SO<sub>x</sub>), PM<sub>10</sub>, and PM<sub>2.5</sub>. Comparable offsite emissions associated with vehicle trips to and from the project site during construction would be dispersed throughout the region and would have a nominal local impact in the project site vicinity.

*Off-site emissions:* Construction activity generated air pollutants activities include typical on-road vehicles including, but would not be limited to, flat bed and haul trucks, and asphalt trucks. These emissions sources would primarily use diesel fuel, emitting combustion exhaust gases such as VOC, CO, NO<sub>x</sub>, sulfur oxides (SO<sub>x</sub>), PM<sub>10</sub>, and PM<sub>2.5</sub>. Off-site emissions associated with vehicle trips to and from the project site during construction would be dispersed throughout the region and would have a nominal localized impact in the project site vicinity.

*On-site emissions:* A comparable construction sequence of the proposed project and the 2316 Imperial Highway Bridge Housing Project would consist of mobilization, site preparation, site work, paving, finishing, and demobilization. Air quality could be impacted by combustion emissions from fossil-fueled off-road equipment and construction vehicles; VOC emissions from applying asphalt, pavement markings, and architectural coatings; and road dust. Comparable construction equipment for the activities described above could include, but would not be limited to, backhoes, generators, vehicles, paving machines, and air compressors. Comparable construction emissions for the 2316 Imperial Highway Bridge Housing Project include exhaust, fugitive dust, particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) from earthmoving activities, and vehicle trips to and from the project site for construction workers, material delivery, and hauling.

*Operations Assumptions:* Comparable operations of the 2316 Imperial Highway Bridge Housing Project would generate a small number of motor vehicle trips, estimated to be 129 trips per day, which would not exceed regional thresholds. Comparable offsite operations-related emissions associated with the daily operations of the proposed project would result in a null generation of criteria air pollutant and TAC emissions

*Off-site emissions:* Comparable day-to-day operations activity of the 2316 Imperial Highway Bridge Housing Project after construction would generate offsite emissions from a variety of sources as a temporary facility serving homeless individuals. Comparable operation-related mobile-source off-site emissions would primarily include vehicle trips by employees and homeless patrons to the facility.

*On-Site emissions:* Comparable operations day-to-day activity of the 2316 Imperial Highway Bridge Housing Project after construction would generate on-site emissions from a variety of sources as a temporary homeless shelter. Comparable operational on-site emissions may be both direct and indirect emissions, and would be generated by area, mobile, and energy sources.

*Construction:* Comparable project emissions were compared to the project-specific local emission LST threshold values in *Table 3 and 4* to determine the significance of project impacts. *Table 5 - Maximum Daily Construction-Related Emissions Summary* summarizes construction emissions for a peak construction day, on which the greatest number of construction equipment would be used. Comparable construction activities for the 2316 Imperial Highway Bridge Housing project would generate maximum daily emissions of approximately 0.9 pounds of VOC, 7.4 pounds of NO<sub>x</sub>, 7.5 pounds of CO, <0.0 pounds of SO<sub>2</sub>, 0.9 pounds of PM<sub>10</sub>, and 0.5 pounds of PM<sub>2.5</sub>. Fugitive dust will be controlled per the applicable SCAQMD Rule 403, which

applies to construction sites in the SCAB. Project emissions were compared to the project-specific LST values in Table 3 and 4 to determine the significance of project impacts. *Table 5 - Maximum Daily Construction-Related Emissions (lbs./day)* shows that comparable emissions from constructing the 2316 Imperial Highway Bridge Housing Project would not exceed any applicable local threshold. Furthermore, the 2316 Imperial Highway Bridge Housing Project emissions analysis is comparable to the 1426 Paloma Street Bridge Housing Project, because it is a similar homeless shelter project that includes a broader scope; therefore, the project would have no significant effect to air quality since it would not violate any air quality standard caused by an unusual circumstance of the project

<b>Table 5 - Maximum Daily Construction-Related Emissions Summary (lbs./day)</b>						
<b>Source/Description</b>	<b>VOC</b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Onsite	0.7	6.6	6.0	<0.00	0.5	0.4
Offsite	0.2	0.8	1.5	<0.00	0.4	0.1
Total Construction	0.9	7.4	7.5	<0.00	0.9	0.5
SCAQMD Regional Thresholds (MDT for Construction from Table 7)	75	100	550	150	150	55
Exceeds Regional Thresholds	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
SCAQMD Localized Significant Threshold for SRA 12 (from Table 8)	NA	46	231	NA	4	3
SCAQMD Localized Significant Threshold for SRA 1 Thresholds (from Table 9)	NA	82	1,259	NA	33	10
Exceeds Localized Significance Threshold?	<b>NA</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Notes: VOC – volatile organic compounds; NO <sub>x</sub> – nitrogen oxides; CO – carbon monoxide; SO <sub>2</sub> – sulfur dioxide; PM <sub>10</sub> – particulates under 10 microns; PM <sub>2.5</sub> – particulates under 2.5 microns. lb – pound; NA – not applicable; SCAQMD – South Coast Air Quality Management District; LST – Localized Significance Threshold; SRA – Source Receptor Area. Project emissions were estimated using the CalEEMod screening model.						

The comparative data demonstrates that at no time during construction of the proposed project would maximum daily emissions exceed any applicable SCAQMD thresholds of significance for regional emissions. Regional air pollutant emissions generated by construction of the proposed project would not cause a violation of an air quality standard or contribute to an existing violation.

As shown in referenced *Table 5 – Maximum Daily Construction-Related Emissions Summary*, the peak daily construction emissions would not exceed any of the SCAQMD regional or local thresholds. Therefore, the project does not exceed the regional or local on-SCAQMD on-site or off-site construction emissions thresholds.

Operations: Comparative operations of the project would generate a small number of motor

vehicle trips, estimated to be 129 trips per day which will not exceed regional thresholds. As shown in *Table 6 – Maximum Daily Operational Emissions*, the estimated number of comparable project-related vehicle trips would not exceed any SCAQMD daily thresholds, and thus would not cause a substantial change. Area sources that are anticipated to generate negligible local on-site comparable operations emissions include electricity generated by offsite regional power plants that provide the ability to burn natural gas for space and water heating. Comparable emissions from temporary operations of the proposed project would not exceed any applicable local threshold; therefore, the project would have no significant effect caused by an unusual circumstance of the project since it would not violate any air quality standard. Therefore, the project would result in construction and operational emissions that would not exceed the SCAQMD thresholds, will not violate an ambient air quality standard or contribute substantially to an existing violation. Therefore, the project will not result in a significant effect caused by an unusual circumstance of the project to air quality.

<b>Table 6 - Maximum Daily Operational Emissions (lb/day)</b>						
<b>Source/Description</b>	<b>VOC</b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Onsite	0.7	0.2	3.0	0.0	0.0	0.0
Offsite	0.3	1.5	4.2	0.0	1.1	0.3
Total Operational	1.0	1.7	7.2	0.0	1.1	0.3
SCAQMD Mass Daily Threshold (regional)	55	55	550	150	150	55
Exceeds Regional Threshold?	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
SCAQMD LST SRA 12	NA	46	231	N/A	1	1
SCAQMD LST SRA 1	NA	82	1,259	N/A	8	3
Exceeds Localized Significance Threshold?	<b>NA</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Notes: VOC – volatile organic compounds; NO <sub>x</sub> – nitrogen oxides; CO – carbon monoxide; SO <sub>2</sub> – sulfur dioxide; PM <sub>10</sub> – particulates under 10 microns; PM <sub>2.5</sub> – particulates under 2.5 microns. lb – pound; NA – not applicable; SCAQMD – South Coast Air Quality Management District; LST – Localized Significance Threshold; SRA – Source Receptor Area. Project emissions were estimated using the CalEEMod screening model.						

Further, the project is required to comply with all applicable standards of the SCAQMD (those relevant to dust control are most applicable at most construction sites although not at this site because there would be no grading at this site), and the City imposes the following additional standard conditions in their contracts as applicable:

- Implement a Fugitive Dust and Erosion Control Plan (FDECP) that meets or exceeds SCAQMD requirements and the CITY'S FDECP for this site.
- Comply with the General Construction Activity Storm Water Permit and the Storm Water Pollution Prevention Plan for this site.

- Comply with the requirements of NOTIFICATION OF HAZARDOUS SUBSTANCES of the General Conditions.
- Protect sensitive habitats and species through the use of fencing, to prohibit construction personnel access to adjacent habitat areas, and with dust control measures of the FDECP, and such other measures that may be called for by the Environmental Impact Report for this project.
- Comply with the following emission control measures to minimize construction activity emissions, at no additional cost to the CITY:
  1. Stop construction activities during Stage II smog alerts which will be announced to the CONTRACTOR by the ENGINEER;
  2. Reduce construction equipment emissions by shutting off all equipment not in actual use;
  3. Reduce construction-related traffic congestion;
  4. Provide rideshare incentives for construction personnel;
  5. Tune and maintain construction equipment properly;
  6. Use low-sulfur/low nitrogen fuel for construction equipment, if available;
  7. Provide transit incentives for construction personnel;
  8. Configure construction parking to minimize traffic interference;
  9. Minimize obstruction of through-traffic lanes; Provide a flagperson to facilitate traffic flow and prevent traffic congestion;
  10. Schedule operations affecting roadways for off-peak traffic hours.

### Odors

A project-related impact could occur if construction or operation of the proposed project would result in generation of odors that would be perceptible in adjacent sensitive areas. According to the SCAQMD *CEQA Air Quality Handbook*, land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies and fiberglass molding. The proposed project involves the rehabilitation of an existing structure to a shelter use and operation of the shelter. As the proposed project involves no elements related to industrial projects, no unusual objectionable odors are anticipated. Therefore, no significant effect due caused by an unusual circumstances of the project would occur.

Potential sources that may emit odors during construction activities include truck exhaust and off-gassing of new carpets. Odors from these sources would be localized, typical of the area and generally confined to the immediate area surrounding the proposed project. The proposed project would use typical construction techniques, and the odors would be typical of most construction sites and temporary in nature. Therefore, the proposed project would result in no significant effect caused by an unusual circumstance of the project due to odor.

### **(d)(3) Noise**

A Noise and Vibration screening study was conducted in February 2019. The noise sensitive land uses (NSLUs) within 500 feet of the site include a private school 300 feet away from the project site. The site is in a highly urbanized densely populated area, currently developed with a warehouse building and is mostly impervious.

*Local Regulations and Standards:* The proposed project is within the jurisdiction of the City of Los Angeles. The City of Los Angeles has established policies and regulations concerning the generation and control of noise that could adversely affect its citizens and noise-sensitive land uses.

As described in the project description, the project design shall comply with a construction management plan that includes project design conditions, as necessary, to protect the health, safety, or convenience of affected sensitive receptors, located in the neighborhood that surrounds the project. The construction management plan and appropriate design conditions have been included from the *City of Los Angeles, Bureau of Engineering, Master Specifications, Division 01, General Requirements, Section 01562, Part 1.1.C*. These general requirements include temporary noise barriers and other general conditions to control construction noise and vibration, as needed, as listed below and in the described specification:

- 1) Locate stationary construction equipment (e.g., generators or air compressors) as far as possible from the nearest NSLU;
- 2) To the extent practical, locate and orient construction equipment and/or material storage trailers so that they occlude direct sound paths between onsite noise construction activities and nearby NSLU positions;
- 3) Install temporary sound walls, including a 32-foot tall wall along the western project boundary, or comparable barriers along the property boundary to occlude direct sound paths between construction activities and the nearby NSLU in the surrounding community;
- 4) Ensure that fuel-burning powered equipment and vehicles have installed and properly functioning factory approved air intake filtration, engine housings, sound-attenuated heat radiators, and combustion exhaust mufflers so that emitted noise levels (e.g., L<sub>max</sub> at 50 feet) are consistent with LAMC 112.05 expectations;
- 5) Prohibit construction activity (including deliveries, equipment maintenance, or operation of any construction equipment) at the proposed project site before 7:00 a.m. or after 9:00 p.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on any Saturday or national holiday, or at any time on Sunday;
- 6) Use low-noise construction equipment;
- 7) Ensure that all mobile and stationary noise-producing construction equipment used on the proposed project site that is regulated for noise output by a local, state, or federal agency complies with such regulation while in the course of project activity;
- 8) Schedule high noise-producing activities during periods of time that are least sensitive;
- 9) Switch off construction equipment when not in use;
- 10) Restrict usage of noise-producing signals (including horns, whistles, alarms, and bells) to safety warning purposes; and
- 11) Reduce construction vehicle trips.

Design methods that can be considered to further lower operations noise levels may include, but are not limited to:

- 1) Selection of mechanical equipment designed to produce low noise levels. This includes the mechanical (i.e., heating, ventilation, air-conditioning [HVAC]) equipment for heating and cooling interior spaces; specifically, the two air handling units to include typical interior cabinet lining to help attenuate the fan noise generation within by 10 dBA;
- 2) Locating mechanical equipment inside the building or shielding it with screens, walls (including parapet walls for rooftop equipment), acoustical louvers, or other noise control devices;
- 3) Designing the building shell to contain noise within the building. This includes proper specifications for windows, doors, and ventilation systems;
- 4) Limiting the maximum noise levels that may be produced by activities within the project;
- 5) Orienting doors, windows, and other openings away from NSLUs. Where windows or emergency doors need to be oriented toward homes or other noise-sensitive uses, ensure they remain closed when not in use; and
- 6) Considering all of the above noise control methods in the final architectural and engineering designs and specifications for project construction.

*Thresholds:* According to the *L.A. CEQA Thresholds Guide* (2006), a project would normally have a significant construction noise impact if:

- Construction activities lasting more than one day would exceed existing ambient exterior noise levels by 10 dBA or more at a noise sensitive use;
- Construction activities lasting more than 10 days in a three-month period would exceed existing ambient exterior noise levels by 5 dBA or more at a noise-sensitive use; or
- Construction activities would exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.

According to the *L.A. CEQA Thresholds Guide* (2006), a project would normally have a significant operational noise impact if the project causes:

- The ambient noise level measured at the property line of affected uses to increase by 3 dBA in CNEL to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.

Additionally, the City Noise Ordinance Section 112.02 states that operational noise (e.g., HVAC equipment, etc.) shall not cause the noise level on the premises of any occupied property other than the site to exceed the ambient noise level by 5 dBA or more. This threshold is more conservative than the CEQA Threshold Guide's option of 5 dBA or more, in that the noise increase is measured at the nearest occupied property rather than the nearest sensitive land use (i.e., NSLUs or affected use). Therefore, LAMC Section 112.02 is being used for an operational noise threshold in this assessment. The LAMC Section 112.04 also restricts excess mechanical noise between the hours of 10:00 p.m. and 7:00 a.m. of the following day in residential zones and within 500 feet of a residential zone. Excess noise during this period is defined as loud, raucous or impulsive sound. This is also being used as a nighttime qualitative threshold.

Construction-related noise was analyzed using data and modeling methodologies the Federal Highway Administration's (FHWA's) Roadway Construction Noise Model (RCNM) (FHWA 2006,

2008), which predicts average noise levels at nearby noise sensitive land uses by analyzing the type of equipment, the distance from source to receptor, usage factor, and the presence, or absence, of intervening shielding between source and receptor. This methodology calculates the composite average noise levels for multiple equipment items. The source-to-receptor distances used in the analyses were the acoustical average distances between the relevant construction area and each receptor. The acoustical average distance is used to represent noise sources that are mobile or distributed over an area (such as the project site); it is calculated by multiplying the shortest distance between the receiver and the noise source area by the farthest distance and then taking the square root of the product.

The closest noise sensitive land use is a private school (St. Turibius, Grades 1 through 8) located about 300 feet to the southeast of the back of the project. The school is obstructed by the existing warehouse building and outside the project's line of sight. The project would be required to comply with City requirements with respect to noise.

### *Construction Noise*

The proposed project construction noise would be about four to six months. It would be temporary, intermittent and typical for industrial urban areas such as the site. Construction noise would be mostly interior to the project building. Exterior construction work associated with constructing a patio, shade structure and fence; and installing HVAC on the roof would be attenuated by existing buildings due to the distance from the nearest sensitive land use. The construction of the patio and any shade structure would require 1 to 2 days and would involve use of hand-operated equipment only. Similarly installing HVAC on the roof would take only a few days and would similarly involve use of hand-operated equipment. Existing regulations as well as intervening structures would reduce noise levels well below 75 dBA at 50 feet. Additionally, as indicated previously, the project design shall comply with a construction management plan that includes project design conditions to control construction noise, as needed. Therefore, there would be no significant effect due to an unusual circumstance of the project due to construction noise.

### *Operational Noise*

Operational noise from the project is expected to be primarily due to the addition of new stationary HVAC equipment that will be located on the northern side of the proposed project and an outdoor patio for use by project residents. This analysis considers the aggregate of HVAC noise emanating from a single point-source at approximately pedestrian height (about 5 feet); and considers that there would be no outdoor public address system and that people's voices would be shielded from the NSLU by intervening buildings, not audible above background levels. In such a heavily trafficked urban area of Los Angeles, the expected change to the outdoor sound environment based on altered roadway traffic flows attributed to operation of the proposed project is likely to be negligible. The combined operational noise levels from all on-site project noise sources will not exceed or 40 dBA at any occupied property other than the project site during the nighttime hours of 10:00 p.m. to 7:00 a.m. Furthermore, the proposed project will be designed and constructed so that all operational noise is controlled to comply with the noise standards of the LAMC at premises of any occupied property other than the site. Therefore, no significant effect from operational noise expected to exceed CEQA impact thresholds, as well as the local noise ordinance, therefore, this project will create no significant effect due to an unusual circumstance of the project due to noise.

**(d)(4) Water Quality**

Construction activities could include maintenance/operation of construction equipment and handling/storage/disposal of materials that could contribute to pollutant loading in storm water runoff.

The proposed project would comply with all applicable regulations with regard to surface water quality as governed by the LAMC and the Regional Water Quality Control Board (RWQCB). The City Bureau of Engineering construction standards require contractors to include erosion control, spill prevention and control, solid and hazardous waste management, and dust control to reduce the discharge of pollutants from construction areas into the stormwater drainage system.

As outlined in the City's Low Impact Development (LID) Ordinance and associated documentation, the project would be required to investigate Treatment Best Management Practices (BMP's) in hierarchal order: Infiltration, Capture and Reuse, and BioFiltration. Conformance to the LID Ordinance and regional regulations and requirements concerning storm water discharge, and implementation of source control and treatment BMPs, the proposed project would reduce discharge of potential pollutants from storm water runoff to the maximum extent practicable. Therefore, the proposed project would not result in a violation of water quality standards or discharge requirements. The project would be connected to the city's storm water infrastructure and therefore, through this and with compliance with existing regulations, therefore, water quality would not result in a significant effect; there are no unusual circumstances.

*(e) The site can be adequately served by all required utilities and public services.*

The project residents would be within citywide population assumptions and consistent with land use planning for the project area. The project would not include new development reaching any threshold likely to generate significant demand for public services or utilities. Therefore, impacts would be less than significant.

The project would comply with all applicable provisions of the City's Fire and Building Codes, and the LAFD would review final building design to ensure adequate Code compliance. The project would include supplemental fire protection devices, such as fire alarms, fire extinguishers, emergency exits, and any necessary improvements required by the LAFD, would be included in the project design. The project site is served by LAFD Fire Station 3 with headquarters located about 2 miles north of the project site. The project site is served by the Newton Community Police Station located 1.2 miles south of the project site.

The project would not impact school facilities as all residents would be temporary and families with children would be housed at different facilities. Therefore, relative to school services, the project would not result in a significant effect; there are no unusual circumstances.

**B. Consideration of Potential Exceptions to Using a Categorical Exemption**

The *State CEQA Guidelines (CCR Sec 15300.2)* limit the use of categorical exemptions in the following circumstances and the City's CEQA Threshold Guidelines further inform and guide the associated significance effects analyses: (Reference 6)

**1. Location**

Exemption Classes 3, 4, 5, 6 and 11 are qualified by consideration of where the project is to be located – a project that is ordinarily insignificant in its impact on the environment may be

significant in a particularly sensitive environment. Therefore, these classes are considered to apply in all instances, except where the project may impact an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies. The project site is located in the highly urban, densely populated Central City community of Los Angeles. There is no such area mapped, designated, or adopted on or adjacent to the project site that would be impacted by the project (Reference 1). Therefore, this circumstance does not apply to the use of the Class 3 exemption for this project.

## **2. Cumulative Impact**

This exception applies when, although a particular project may not have a significant impact, the cumulative impact of successive projects of the same type in the same place, over time, is significant. No successive projects of the same type in the same place could be identified by reviewing online resources (Reference 4). Other similar local homeless support and shelter projects are planned for the greater Los Angeles area; however, project details for most are too speculative at present for CEQA analysis and feasibility studies are still underway (Reference 5). One project, a temporary shelter site at 711 North Alameda Street received a CEQA exemption and has completed construction. Due to the distance from the project, it would not contribute to cumulative impacts. In addition, a cumulative impact can occur if existing non-significant impacts become significant if combined with those of ongoing related projects in the area of the same size or greater. Due to many factors, such as the size and type of project, the degree below local and regional thresholds for various resource areas, the small amount of traffic generated, low amount of pollutant emissions and controlled noise levels as part of the project design, it is anticipated that significant cumulative impacts would not occur. To better inform the project description and to consider other possible cumulative impacts, a list of active permits was researched at the Department of Building and Safety within a local radius (1,000 feet) (Reference 7). There were no active related projects identified within 500 feet of the project site.

Due to the small contribution of the proposed project in relation to no related projects in regard to traffic, noise, and air pollution, no cumulative impacts are anticipated. Therefore, the project would have no known impacts that are individually limited but cumulatively considerable and no successive projects of the same type in the same place. Therefore, this exception has no application here.

### **3. Significant Effect**

There are no unusual circumstances regarding this project, related to relying on the existing facilities, or minor additions to facilities, or infill developments exemptions. The rehabilitation of an existing facility for another use that is compliant with the existing zoning, such as this homeless shelter, is normal and common. A homeless shelter is an appropriate use for this site's industrial M2-2D zoning and light industrial land use designation, and is allowed under the City's municipal codes and regulations. All surrounding properties are zoned for industrial land uses and the site is in a freeway-adjacent highly urbanized area of the City's core, just a few blocks away from the I-10 freeway. The operation of a shelter on this site is not anticipated to create any impact that any other allowed use of this site, or of the existing adjacent neighboring industrial uses, normally generate. The equipment installed for operating the facility is similar to the adjacent facilities and normal for such existing industrial buildings. The use of the site by patrons and the transportation trips generated by the project are normal compared to the facilities in this area. Accordingly, as far as considering this project as categorically exempt from CEQA as an existing facility or an infill development project, this project will not have any unusual circumstances that would cause a significant impact.

Homeless shelters are common in urban areas, such as in this area located on the south side of the City of Los Angeles's downtown core. The Class 32 infill exemption includes a wide array of uses. A homeless shelter, such as this project, is suitable for the infill categorical exemption if it meets the requirements of the infill exemption. As described above, the project meets the infill requirements and there are no unusual circumstances related to locating homeless persons at the project—particularly considering that much of the area has a large, existing homeless population. The occurrence of homeless shelters in an urban environment such as the project area is common. This project is similar in effects as other urban infill and existing facility projects in that the areas being used are urban uses (an existing industrial building) and the project is surrounded by urban uses. As noted above, there are numerous comparable homeless shelters located within 5 miles from the proposed Project. Other similar temporary homelessness projects, such as the City's El Pueblo site located in downtown Los Angeles, have utilized infill exemptions since facilities for sheltering homeless are common and appropriate in urban environments.

Also, adding on a shade structure and patio area to an existing facility in an industrial, urban environment is not unusual. The shade structure is anticipated to be a relatively minor addition to the facility, as noted above, that will be completed with a day or two, and thus will result in minimal impact upon the environment from a construction standpoint. Also, it will be a typical patio structure that falls squarely within State CEQA Guidelines Section 15303(e). There is nothing unusual about the proposed patio as a minor accessory structure being added to the site.

As explained further in more detail above and below for some environmental issue areas, as a result of limited changes to the existing on-site facilities, and as a result of expected operational characteristics, the project would not have the potential to result in significant environmental impacts with respect to any environmental issue area.

### **4. Scenic Highways and Scenic Resources**

The project site is located in the South Market industrially designated area of Downtown Los Angeles. It is not visible from any State-designated scenic highway (Reference 12). The closest designated highway is the Route 110 Arroyo Seco Historic Parkway located about 2.4

miles to the north of the project site and would not be visible from that location due to the presence of numerous intervening commercial and industrial structures. The project would not make substantial changes to the appearance of the existing building.

### **5. Hazardous Waste Sites**

This exception applies when a project is located on a site listed as a hazardous waste site under Government Code Section 65962.5. Based on a review of the Envirostor and Geotracker web sites, the site is not listed on any hazardous materials list identified in California Government Code Section 65962.5. Therefore, no significant effect to hazardous materials and hazardous waste is anticipated. Therefore, this exception has no application.

### **6. Historical Resources**

This exception applies when a project may cause a substantial adverse change in the significance of a historical resource. According to the Central City Community Plan (Reference 19), the project site does not contain historically significant resources. Also, there is no site with historical significance adjacent to the site. Therefore, no significant effect to historical resources is anticipated. In addition, after review of project information and associated technical analyses, no unusual circumstances are known to this office that would cause a significant effect due to unusual circumstances. Therefore, this exception has no application here.

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## **REFERENCES**

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5. Homeless Services Directory. *Review of Services within 10 Miles of Project Site*. C. Adams, LABOE-EMG, February 6, 2019, hyperlink at:  
<https://www.homelessshelterdirectory.org/cgi-bin/id/city.cgi?city=Los%20Angeles&state=CA>
6. City of Los Angeles Environmental Affairs Department. *Los Angeles CEQA Thresholds Guide (2006)*; hyperlink at:  
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8. Review of Cortese Lists (Government Code Section 65962.5) at ca.gov by, LABOE-EMG, February 2019.
9. City of Los Angeles, Department of City Planning, *Central City Community Plan*, January 8, 2003.

10. ITE Trip Generation Manual, 10<sup>th</sup> Edition, September 2017
  11. *City of Los Angeles CEQA Threshold Guide, 2006.*
  12. Officially designated highways are identified at:  
[http://www.dot.ca.gov/hq/LandArch/16\\_livability/scenic\\_highways/](http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/) accessed October 9, 2018
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## **ATTACHMENTS**

- A. Air Quality Resources Screening for 2316 East Imperial Highway Bridge Housing
- B. Noise Information
- C. Traffic Information
- D. Historic Review Information

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**ATTACHMENT A - Air Quality Resources Screening for 2316 East Imperial  
Highway Bridge Housing**

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## TECHNICAL MEMORANDUM

**TO:** Heloise Froelich, Environmental Supervisor I  
Bureau of Engineering, Environmental Management Group

**SUBJECT:** Air Quality Resources Screening for 2316 East Imperial Highway Bridge Housing

**FROM:** Bruce Campbell, Parsons

**DATE:** November 16, 2018

### 1.0 PURPOSE

An Air Quality study was conducted in October 2018 to evaluate potential air quality impacts of the proposed project. This study will help inform the California Environmental Quality Act (CEQA) analysis required for the proposed use. The project study area is the South Coast Air Basin (SCAB) and the project site.

### 2.0 PROJECT LOCATION

The proposed temporary bridge housing facility would be located in the unincorporated community of Willowbrook in Los Angeles County just outside the City of Los Angeles (City) on City-owned property at 2361 East Imperial Highway, Willowbrook, CA 90059, as shown on Figures 1 (Regional Location) and 2 (Project Location). The long, narrow site is on the south side of Imperial Highway between South Croesus Avenue and Mona Boulevard, and it is bordered on the south side by Interstate-105 (I-105) in. The vacant 1.3-acre (approximately 56,936 square-foot [sf]) project site includes four parcels: (Assessor's Parcel No. (APN) 6150-016-901, 6150-017-901, 6150-016-902 and 6150-017-902. Imperial Highway is classified by the City as a Boulevard II road.

The project site adjoins Council District (CD) 15 in the *Southeast Los Angeles Community Plan Area* of the city. The project site is zoned CG with a General Commercial land use designation. Adjacent parcels to the north and south are zoned multi-family residential, while the property to the west is zoned commercial and the properties to the southeast are zoned for industrial and manufacturing.

The project site for the proposed Bridge Housing is on the *South Gate, CA* United States Geological Survey (USGS) topographic quadrangle (latitude 33° 55'43.66" N and longitude 118° 13' 54.60" W). The project site is located in a highly urbanized and densely populated area of Los Angeles.

### 3.0 PROJECT DESCRIPTION

The proposed 1.3-acre (56,936-sf) project would include two new tent structures: one 7,200 sf (120 feet long by 60 feet wide) and one 4,500 sf (90 feet by 50 feet) with a combined total of 101 beds. Other onsite structures would include four hygiene trailers (each 12 feet by 40 feet), a free-standing shade structure to be constructed onsite, a 960-sf (40 feet by 24 feet) prefabricated administration trailer, a 4,640-sf exterior dining area, a 130-sf food preparation and serving area, 1,606-sf bin storage area for 101 bins, street and onsite fencing, a 6,493-sf outdoor smoking/pet area, bike racks, and general open space that would serve the local homeless community.

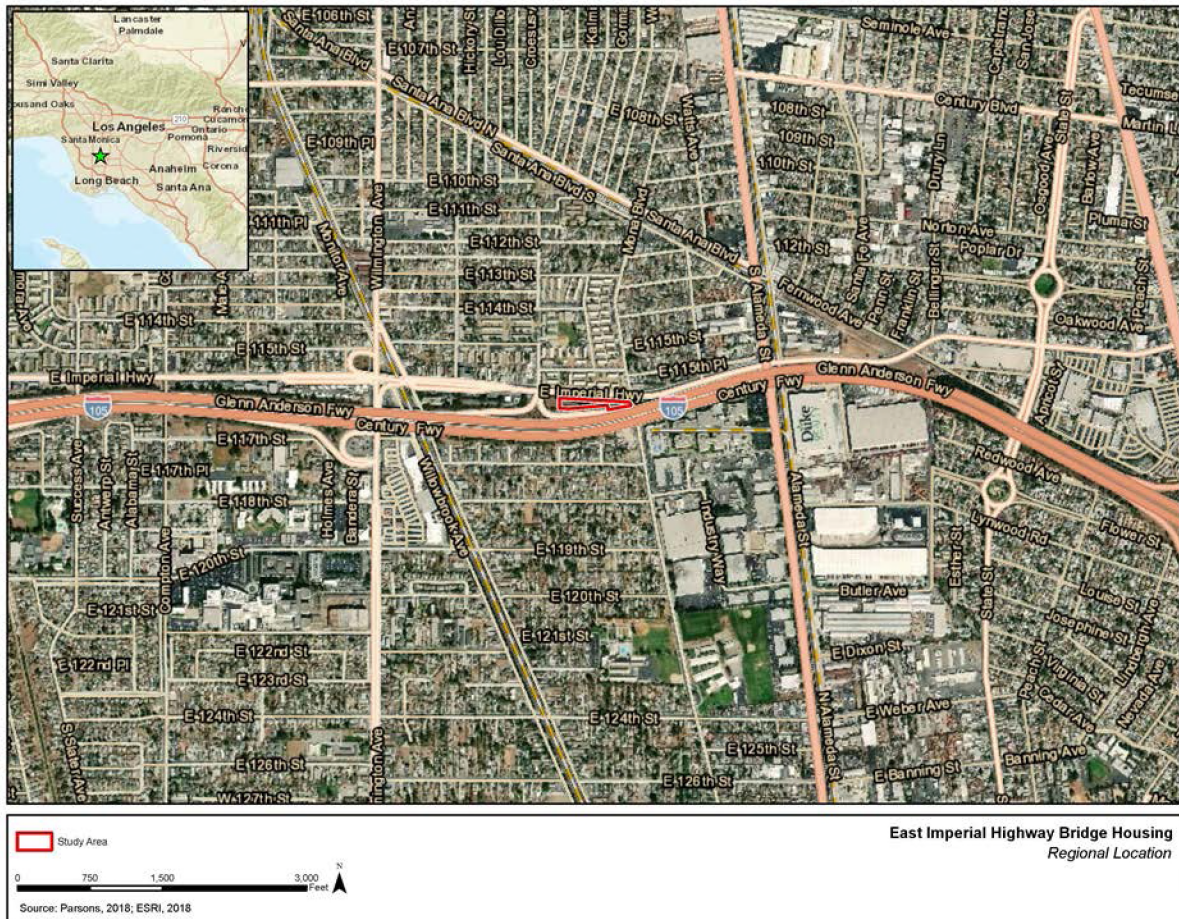


Figure 1. Regional Location

The proposed Bridge Housing at this site would be used as a temporary facility, and it would be operated by the City through the Los Angeles Homeless Services Authority or another City vendor. The project site and adjacent areas are within a highly urban and densely populated area of Los Angeles.

Where necessary, the City would integrate regulatory control measures (RCM) and other design features into project plans and specifications to ensure compliance with applicable City ordinances and code requirements.

### Project Construction

Construction would consist of mobilization and site preparation; grading, trenching, and installation of subsurface utilities; building assembly and construction; architectural coating and paving; finishing; and demobilization. Maximum depth of trenches would be approximately 4 feet. Construction equipment would include heavy trucks, generators, air compressors, backhoes, bulldozers, cranes, rollers, pavers, and forklifts. Construction vehicles, equipment, and materials would be staged onsite.



**Figure 2. Project Location**

Construction would require approximately 5 months and would include demolition, grading and trenching for subsurface utilities, construction, installation and assembly of prefabricated structures, paving, landscaping, and finishing/demobilization. Construction would occur between 7:00 a.m. and 4:00 p.m. 5 days per week with an average of 8 to 10 workers. Approximately 1 to 4 truck trips per day would be required to bring equipment and building materials to the site, provide vendor services during construction, and remove soil and debris from the site.

### **Operations**

During project operations, the 101-bed facility would be 100 percent occupied. The facility would operate 24 hours per day. Staffing would consist of up to 16 individuals on the day shift, 9 individuals on the evening shift, 5 individuals on the swing shift, and 3 to 6 individuals on the weekend. Approximately 129 additional trips per day would be required for operation of the facility.

The project site will be operated by the Los Angeles Homeless Services Authority or other City vendor. The site will be continuously staffed with security and provided with directional lighting for security. The site will have a full staff during operational hours.

The project design will comply with a construction management plan that includes project design conditions, as necessary, to protect the health, safety, or convenience of affected sensitive receptors

located in the neighborhood that surrounds the project. The construction management plan and appropriate design conditions have been selected from the *City of Los Angeles, Bureau of Engineering, Master Specifications, Division 01, General Requirements, Section 01562, Part 1.1.C*. Selected design conditions are detailed further under applicable resource area analyses. In addition, unless otherwise stated, the proposed project will be designed, constructed, and operated following all applicable laws, regulations, ordinances, and formally adopted City standards including, but not limited to:

- Los Angeles Municipal Code
- Bureau of Engineering Standard Plans
- Standard Specifications for Public Works Construction
- Work Area Traffic Control Handbook
- Additions and Amendments to the Standard Specifications for Public Works Construction

#### **4.0 ENVIRONMENTAL SETTING**

The following discussion describes the existing air quality conditions in the project area. The project area is located in the SCAB, which is under the air quality jurisdiction of the South Coast Air Quality Management District (SCAQMD). SCAQMD is tasked with air quality monitoring, planning, and enforcement throughout the SCAB. The SCAB is geographically divided into 38 subareas referred to as Source Receptor Areas (SRAs), each of which contains an air monitoring station that measures ambient concentrations of air pollutants. The project area is situated within SRA 12, South Central LA County.

##### **South Coast Air Basin Attainment Status**

National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for six criteria air pollutants (United States Environmental Protection Agency [USEPA], 2018): ozone (O<sub>3</sub>); nitrogen dioxide (NO<sub>2</sub>); carbon monoxide (CO); sulfur dioxide (SO<sub>2</sub>); particulate matter (PM), including both respirable particulate matter (PM<sub>10</sub>) and fine particulate matter (PM<sub>2.5</sub>); and lead (Pb). These pollutants are common byproducts of human activities, and have been documented through scientific research to cause adverse health effects. The Clean Air Act (CAA) grants USEPA the authority to designate air basins, or portions thereof, as attainment, nonattainment, or maintenance (previously nonattainment and currently attainment) for each criteria air pollutant based on whether the NAAQS concentrations have been met within the Air Basin, based on air quality monitoring data for the most recent 3-year period. The California Air Resources Board (CARB) similarly designates Air Basins or portions thereof as being in attainment or nonattainment of the CAAQS.

##### **South Coast Air Basin**

The project site is located within the SCAB, which is subject to some of the worst air pollution in the nation due to the immense magnitude of emissions sources and the combination of topography, low mean atmospheric mixing height, and abundant sunshine. Although the SCAB has a semiarid climate, air near the surface is generally moist because of the presence of a shallow marine layer. With very low average wind speeds, the SCAB has a limited capacity to disperse air contaminants horizontally. The topography of the SCAB contributes to the variability of rainfall, temperature, and winds throughout the region.

During the spring and early summer, air pollution produced during any one day is typically transported out of the SCAB through mountain passes or lifted by warm, vertical currents adjacent to mountain slopes. The vertical dispersion of air pollutants in the SCAB is limited by temperature inversions in the atmosphere close to the Earth's surface. The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient

air pollutant concentrations are lowest. During periods of low inversions and low wind speeds, air pollutants become more concentrated in urban areas with pollution sources of greater magnitude.

### **Local Air Quality Conditions**

Air quality within the SCAB is characterized by concentrations of air pollutants measured at 40 monitoring stations located throughout the SCAQMD jurisdiction. The SCAB is divided geographically into 38 SRAs, each of which contains an air quality monitoring station. The SRA boundaries were drawn based on the local emissions inventories and topography. The project site is located in SRA 12, South Central Los Angeles County. Air quality in SRA 12 is represented by air pollutant concentrations measured at the Compton air quality monitoring station, which is located at 700 North Bullis Road, approximately 2.4 miles southeast of the project site; this station monitors O<sub>3</sub>, CO, NO<sub>2</sub>, and PM<sub>2.5</sub>. The North Long Beach air quality monitoring station at 3648 North Long Beach Boulevard in Long Beach, approximately 7.7 miles south-southeast of the project site, is the closest air quality monitoring station that measures concentrations of PM<sub>10</sub>. The data from these two stations are most representative of air quality conditions at the project site.

### **Sensitive Receptors**

According to SCAQMD, land uses that constitute sensitive receptors include residences, schools, playgrounds, child-care centers, athletic facilities, long-term health-care facilities, rehabilitation centers, convalescent centers, and retirement homes. The sensitive land uses closest to the project site are apartments across Imperial Highway (Imperial Courts) approximately 135 feet to the north, single-family homes on East 115<sup>th</sup> Place approximately 205 feet to the northeast, and single-family homes on Gorman Avenue approximately 290 feet to the south of the project site.

## **5.0 REGULATORY SETTING**

### **Federal**

#### ***Federal Clean Air Act***

The CAA governs air quality at the national level. USEPA is responsible for enforcing the federal regulations enacted pursuant to the CAA. Under the CAA, USEPA is authorized to establish NAAQS that limit concentrations of air pollutants in ambient air. Enforcement of the NAAQS is required under the 1977 CAA and subsequent amendments. USEPA also regulates emission sources under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. USEPA has jurisdiction over emission sources outside State waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than California. As required by the CAA, NAAQS have been established for the six criteria air pollutants discussed below. As previously discussed, the CAA grants USEPA authority to designate areas as attainment, nonattainment, or maintenance. USEPA develops rules and regulations to preserve and improve air quality and delegates specific responsibilities to state and local agencies.

#### ***Criteria Air Pollutants***

Air quality is characterized by ambient air concentrations of six air pollutants identified by USEPA to be of concern with respect to the health and welfare of the general public. These air pollutants, known as “criteria air pollutants,” are pollutants for which the federal and State governments have established ambient air quality standards for outdoor concentrations to protect public health. Federal criteria air pollutants include ground-level O<sub>3</sub>, NO<sub>2</sub>, CO, SO<sub>2</sub>, PM (including PM<sub>10</sub> and PM<sub>2.5</sub>), and Pb. In addition to criteria air pollutants, California regulates visibility-reducing particles, sulfate, hydrogen sulfide, and vinyl chloride. Table 1 describes each criteria air pollutant and its health effects based on information provided by SCAQMD.

**Table 1. State and Federal Criteria Air Pollutant Effects and Sources**

<b>Pollutant</b>	<b>Principal Health and Atmospheric Effects</b>	<b>Typical Sources</b>
Ozone (O <sub>3</sub> )	High concentrations irritate lungs. Long-term exposure may cause lung tissue damage and cancer. Long-term exposure damages plant materials and reduces crop productivity. Precursor organic compounds include many known toxic air contaminants (TAC). Biogenic volatile organic compounds (VOC) may also contribute.	Low-altitude O <sub>3</sub> is almost entirely formed from VOCs and nitrogen oxides (NO <sub>x</sub> ) in the presence of sunlight and heat. Common precursor emitters include motor vehicles and other internal combustion engines, solvent evaporation, boilers, furnaces, and industrial processes.
Respirable Particulate Matter (PM <sub>10</sub> )	Irritates eyes and respiratory tract. Decreases lung capacity. Associated with increased cancer and mortality. Contributes to haze and reduced visibility. Includes some TACs. Many toxic and other aerosol and solid compounds are part of PM <sub>10</sub> .	Dust- and fume-producing industrial and agricultural operations; combustion smoke & vehicle exhaust; atmospheric chemical reactions; construction and other dust-producing activities; unpaved road dust and re-entrained paved road dust; natural sources.
Fine Particulate Matter (PM <sub>2.5</sub> )	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and produces surface soiling. Most diesel exhaust particulate matter – a TAC – is in the PM <sub>2.5</sub> size range. Many toxic and other aerosol and solid compounds are part of PM <sub>2.5</sub> .	Combustion including motor vehicles, other mobile sources, and industrial activities; residential and agricultural burning; also formed through atmospheric chemical and photochemical reactions involving other pollutants including NO <sub>x</sub> , sulfur oxides (SO <sub>x</sub> ), ammonia, and VOC.
Carbon Monoxide (CO)	CO interferes with the transfer of oxygen to the blood and deprives sensitive tissues of oxygen. CO also is a minor precursor for photochemical O <sub>3</sub> . Colorless, odorless.	Combustion sources, especially gasoline-powered engines and motor vehicles. CO is the traditional signature pollutant for on-road mobile sources at the local and neighborhood scale.
Nitrogen Dioxide (NO <sub>2</sub> )	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown. Contributes to acid rain & nitrate contamination of stormwater. Part of the “NO <sub>x</sub> ” group of O <sub>3</sub> precursors.	Motor vehicles and other mobile or portable engines, especially diesel; refineries; industrial operations.
Sulfur Dioxide (SO <sub>2</sub> )	Irritates respiratory tract; injures lung tissue. Can yellow plant leaves. Destructive to marble, iron, steel. Contributes to acid rain. Limits visibility.	Fuel combustion (especially coal and high-sulfur oil), chemical plants, sulfur recovery plants, metal processing; some natural sources like active volcanoes. Limited contribution possible from heavy-duty diesel vehicles if ultra-low sulfur fuel not used.
Lead (Pb)	Disturbs gastrointestinal system. Causes anemia, kidney disease, and neuromuscular and neurological dysfunction. Also a TAC and water pollutant.	Lead-based industrial processes like battery production and smelters. Lead paint, leaded gasoline. Aerially deposited lead from older gasoline use may exist in soils along major roads.
Visibility-Reducing Particles (VRP)	Reduces visibility. Produces haze. NOTE: Not directly related to the Regional Haze Program under the federal CAA, which is oriented primarily toward visibility issues in National Parks and other “Class I” areas. However, some issues and measurement methods are similar.	See particulate matter above. May be related more to aerosols than to solid particles.
Sulfate	Premature mortality and respiratory effects. Contributes to acid rain. Some TACs attach to sulfate aerosol particles.	Industrial processes, refineries and oil fields, mines, natural sources like volcanic areas, salt-covered dry lakes, and large sulfide rock areas.

**Table 1. State and Federal Criteria Air Pollutant Effects and Sources**

Pollutant	Principal Health and Atmospheric Effects	Typical Sources
Hydrogen Sulfide (H <sub>2</sub> S)	Colorless, flammable, poisonous. Respiratory irritant. Neurological damage and premature death. Headache, nausea. Strong odor.	Industrial processes such as: refineries and oil fields, asphalt plants, livestock operations, sewage treatment plants, and mines. Some natural sources like volcanic areas and hot springs.
Vinyl Chloride	Neurological effects, liver damage, cancer. Also considered a TAC.	Industrial processes.

**Toxic Air Contaminants**

In addition to criteria air pollutants, USEPA regulates hazardous air pollutants, also known as toxic air contaminants (TACs). TACs may be emitted by stationary, area, or mobile sources. Common stationary sources of TAC emissions include gasoline stations, dry cleaners, and diesel backup generators, which are subject to local air district permit requirements. The other, often more significant, sources of TAC emissions are motor vehicles on freeways, high-volume roadways, or other areas with high numbers of diesel vehicles, such as distribution centers. Off-road mobile sources are also major contributors of TAC emissions and include construction equipment, ships, and trains.

TACs can be separated into carcinogens and noncarcinogens based on the nature of the effects associated with exposure to the pollutant. For regulatory purposes, carcinogens are assumed to have no safe threshold below which health impacts would not occur. Any exposure to a carcinogen poses some risk of contracting cancer. Noncarcinogens differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

**State**

**California Clean Air Act**

Air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). The CCAA is administered by CARB at the State level and by the air quality management districts and air pollution control districts at the regional and local levels. The CCAA requires all areas of the State to achieve and maintain the CAAQS by the earliest feasible date, which is determined in the most recent State Implementation Plan (SIP) based on existing emissions and reasonably foreseeable control measures that will be implemented in the future. The CAAQS pollutants are summarized in Table 2A, which also includes attainment status designations for the Los Angeles County portion of the SCAB, under both federal and State classification descriptions. Table 2B lists the actual standard for each pollutant.

CARB, a department of the California Environmental Protection Agency, is responsible for the coordination and administration of federal and State air pollution control programs in California. In this capacity, CARB conducts research, designates the CAAQS, compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the SIP. CARB also establishes emissions standards for motor vehicles sold in California, consumer products (i.e., hair spray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

**Table 2A. Federal and State Attainment Status**

**Los Angeles County Portion of the South Coast Air Basin**

Pollutant	Federal Classification	State Classification
O <sub>3</sub> (1-hour standard)	—	Nonattainment
O <sub>3</sub> (8-hour standard)	Nonattainment, Extreme	Nonattainment
PM <sub>10</sub>	Attainment/Maintenance	Nonattainment
PM <sub>2.5</sub>	Nonattainment	Nonattainment
CO	Attainment/Maintenance	Attainment
NO <sub>2</sub>	Attainment/Maintenance	Attainment
SO <sub>2</sub>	Attainment	Attainment
Pb	Nonattainment	Attainment

Note that only the Los Angeles County portion of the SCAB is nonattainment for NAAQS Pb. The remainder of the Basin is attainment.

Sources: CARB, 2018; USEPA, 2018.

**Table 2B. Federal and State Ambient Air Quality Standards**

Pollutant	Averaging Time	CAAQS <sup>a</sup>	NAAQS <sup>b</sup>
Ozone (O <sub>3</sub> )	1 hour	0.09 ppm <sup>c</sup>	—
	8 hour	0.070 ppm	0.070 ppm
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm
	8 hour	9.0 ppm	9 ppm
Nitrogen Dioxide (NO <sub>2</sub> )	1 hour	0.18 ppm	100 ppb
	Annual Arithmetic Mean	0.030 ppm	53 ppb
Sulfur Dioxide (SO <sub>2</sub> )	1 hour	0.25 ppm	75 ppb
	24 hour	0.04 ppm	0.14 ppm
Respirable Particulate Matter (PM <sub>10</sub> )	24 hour	50 µg/m <sup>3</sup> <sup>c</sup>	150 µg/m <sup>3</sup>
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>	—
Fine Particulate Matter (PM <sub>2.5</sub> )	24 hour	—	35 µg/m <sup>3</sup>
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	12.0 µg/m <sup>3</sup>
Sulfates	24 hour	25 µg/m <sup>3</sup>	—
Lead (Pb)	30-day average	1.5 µg/m <sup>3</sup>	—
	Calendar quarter	—	1.5 µg/m <sup>3</sup>
	Rolling 3-Month Average	—	0.15 µg/m <sup>3</sup>
Hydrogen Sulfide	1 hour	0.03 ppm	—
Vinyl Chloride	24 hour	0.01 ppm	—

Notes:  
<sup>a</sup> The CAAQS O<sub>3</sub>, CO, SO<sub>2</sub> (1-hour and 24-hour), NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> are values not to be exceeded. All other California standards shown are values not to be equaled or exceeded.  
<sup>b</sup> The NAAQS, other than O<sub>3</sub> and those pollutants using annual arithmetic mean, are not to be exceeded more than once a year. The O<sub>3</sub> standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than 1.  
<sup>c</sup> ppm = parts per million by volume; ppb = parts per billion; µg/m<sup>3</sup> = micrograms per cubic meter.

Source: CARB, 2016.

### **State Implementation Plan**

CARB is the lead agency for developing the SIP in California. Local air districts and other agencies prepare Air Quality Attainment Plans or Air Quality Management Plans (AQMPs) and submit them to CARB for review, approval, and incorporation into the applicable SIP. CARB also maintains air quality monitoring stations throughout the State in conjunction with local air districts. Data collected at these stations are used by CARB to classify air basins as being in attainment or nonattainment with respect to each pollutant and to monitor progress in attaining air quality standards.

The CCAA requires each area exceeding the CAAQS for O<sub>3</sub>, CO, SO<sub>2</sub>, and NO<sub>2</sub> to develop a plan aimed at achieving those standards. The California Health and Safety Code Section 40914 requires air districts to design a plan that achieves an annual reduction in districtwide emissions of 5 percent or more, averaged over every consecutive 3-year period.

To satisfy this requirement, local air districts must develop and implement air pollution reduction measures, which are described in their AQMPs, and outline strategies for achieving the CAAQS for any criteria pollutant for which the region is classified as nonattainment. CARB has established emission standards for vehicles sold in California and for various types of equipment. California gasoline specifications are governed by State and federal agencies. During the past decade, federal and State agencies have imposed numerous requirements on the production and sale of gasoline in California. CARB has also adopted control measures for diesel PM (DPM) and more stringent emissions standards for various on-road mobile sources of emissions, including transit buses and off-road diesel equipment (e.g., tractors, generators).

### **State Criteria Air Pollutants**

The State has established CAAQS for pollutants in addition to those that are regulated under the NAAQS (Table 1).

### **State Toxic Air Contaminants**

Particulate exhaust emissions from diesel-fueled engines (DPM) were identified as a TAC by CARB in 1998. Federal and State efforts to reduce DPM emissions have focused on the use of improved fuels, adding particulate filters to engines, and requiring the production of new technology engines that emit fewer exhaust particulates.

Diesel engines tend to produce a much higher ratio of fine particulates than other types of internal combustion engines. The fine particles that make up DPM tend to penetrate deep into the lungs, and the rough surfaces of these particles makes it easy for them to bind with other toxins within the exhaust, thus increasing the hazards of particle inhalation. Long-term exposure to DPM is known to lead to chronic serious health problems including cardiovascular disease, cardiopulmonary disease, and lung cancer.

TACs in California are regulated primarily through the *Toxic Air Contaminant Identification and Control Act* (Chapter 1047, *Assembly Bill* [AB] 1807, Statutes of 1983) and the *Air Toxics "Hot Spots" Information and Assessment Act* (Chapter 1252, AB2588, Statutes of 1987). AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. Research, public participation, and scientific peer review must occur before CARB can designate a substance as a TAC. The *Air Toxics "Hot Spots" Information and Assessment Act* requires that TAC emissions from stationary sources be quantified and compiled into an inventory according to criteria and guidelines developed by CARB, and if directed to do so by the local air district, a Health Risk Assessment (HRA) must be prepared to determine the potential health impacts of such emissions.

## **Regional**

### ***South Coast Air Quality Management District***

In Los Angeles County, SCAQMD is the agency responsible for protecting public health and welfare through the administration of federal and State air quality laws and policies. Included in SCAQMD's tasks are monitoring of air pollution, preparation of AQMPs, and promulgation of rules and regulations.

SCAQMD monitors air quality within the project area and the SCAB, which includes Orange County and portions of Los Angeles, Riverside, and San Bernardino Counties. The SCAB is bounded by the Pacific Ocean to the west; the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east; and the San Diego county line to the south. Air quality plans describe air pollution control strategies to be implemented by a city, county, or regional air district. The primary purpose of an air quality plan is to bring an area that does not attain federal or state air quality standards into compliance with those standards pursuant to the requirements of the CAA and CCAA. The SCAB is designated as nonattainment for 8-hour O<sub>3</sub> and PM<sub>2.5</sub> for State and federal standards and nonattainment for PM<sub>10</sub> for State standards.

The most recent AQMP was adopted by the Southern California Association of Governments (SCAG) in 2016 and is intended to serve as a regional blueprint for achieving the federal air quality standards and healthful air. The 2016 AQMP focuses on demonstrating NAAQS attainment dates for the 2008 8-hour O<sub>3</sub> standard, the 2012 annual PM<sub>2.5</sub> standard, and the 2006 24-hour PM<sub>2.5</sub> standard.

Through the attainment planning process, SCAQMD develops rules and regulations to regulate sources of air pollution in the Basin (SCAQMD, 2015). The proposed project may be subject to the adopted SCAQMD rules and regulations listed below:

**SCAQMD Rule 402—Nuisance.** This rule prohibits the discharge of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; endanger the comfort, repose, health, or safety of any such persons or the public; or cause, or have a natural tendency to cause, injury or damage to business or property.

**SCAQMD Rule 403—Fugitive Dust.** This rule prohibits emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area that remains visible beyond the property line of the emission's source. During construction of the project, best available control measures identified in the rule would be required to minimize fugitive dust emissions from proposed earthmoving and grading activities. These measures would include site prewatering and rewatering as necessary to maintain sufficient soil moisture content. Additional requirements apply to construction projects on properties with 50 or more acres of disturbed surface area or any earthmoving operation with a daily earthmoving or throughput volume of 5,000 cubic yards or more three times during the most recent 365-day period. These requirements include submittal of a dust control plan, maintenance of dust control records, and designation of a SCAQMD-certified dust control supervisor.

### ***Southern California Association of Governments***

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties. SCAG addresses regional issues related to transportation, the economy, community development, and the environment. SCAG is the federally designated metropolitan planning organization (MPO) for most of the southern California region and the largest MPO in the nation. As required by federal and State law, SCAG develops plans pertaining to transportation, growth management, hazardous waste management, housing, and air quality. With respect to air quality planning, SCAG has prepared the *Regional Comprehensive Plan and Guide*, which includes Growth Management and Regional Mobility chapters that support the land use and transportation

components of the AQMP. These chapters are used in the preparation of air quality forecasts and the consistency analysis included in the AQMP.

## Local

### ***City of Los Angeles General Plan Air Quality Element***

The City of Los Angeles General Plan *Air Quality Element* sets forth the goals, objectives, and policies that guide the City in the implementation of its air quality improvement programs and strategies. Goal AQ-1 of the *Air Quality Element* is to provide “good air quality and mobility in an environment of continued population growth and healthy economic structure.” The following goals and objectives are applicable to the proposed project:

- Goal 1: Good air quality and mobility in an environment of continued population growth and healthy economic structure.
  - Goal 2: Less reliance on single-occupant vehicle with fewer commute and non-work trips.
  - Goal 4: Minimal impact of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation, and air quality.
  - Goal 5: Energy efficiency through land use and transportation planning, the use of renewable resources and less polluting fuels and the implementation of conservation measures including passive methods such as site orientation and tree planting.
  - Goal 6: Citizen Awareness of the linkages between personal behavior and air pollution, and participation in efforts to reduce air pollution.
- Objective AQ-1.1: To reduce air pollutants consistent with the AQMP, increase traffic mobility, and sustain economic growth citywide.
- Objective AQ-1.3: To reduce particulate air pollutants emanating from unpaved areas, parking lots, and construction sites.

## **6.0 THRESHOLDS**

SCAQMD methods recommend that air pollutant emissions be analyzed in regional and local contexts. Regional emissions refer to all emissions that would be associated with construction and operation of a project, while local emissions refer only to those emissions that would be produced by sources located on the project site.

The California Air Pollution Control Officers Association’s (CAPCOA) California Emissions Estimator Model (CalEEMod), Version 2016.3.2, was used to quantify emissions from anticipated construction and operations activities (CAPCOA, 2016). The CalEEMod model is approved by SCAQMD. CalEEMod uses emission factors for onsite and offsite emissions. Project construction-related and operation-related criteria air pollutant emissions were estimated using CalEEMod, then compared to SCAQMD’s Mass Daily Threshold (MST), a regional daily emission threshold for onsite and offsite construction and operations activities and SCAQMD’s Localized Significance Thresholds (LST), local thresholds that only apply to construction-related and operations-related onsite emissions to determine significance.

Mass Daily Thresholds (MDT), the regional daily emission thresholds for onsite and offsite construction and operations activities for the project are listed in Table 3.

**Table 3. Mass Daily Thresholds (lb/day)**

Pollutant	Construction	Operations
NO <sub>x</sub>	100	55
VOC	75	55
PM <sub>10</sub>	150	150
PM <sub>2.5</sub>	55	55
SO <sub>x</sub>	150	150
CO	550	550
Pb	3	3

Source: SCAQMD CEQA Handbook (SCAQMD, 1993).

SCAQMD developed LST methods to determine, without dispersion modeling, if a project would cause or contribute to an exceedance of the applicable ambient air quality standard (SCAQMD, 2008). The LST methods are based on the maximum daily allowable construction-related and operations-related onsite emissions, the total area of the emissions source, the ambient air quality in each SRA in which the emission source is located, and the distance to the nearest exposed individual. For projects less than 5 acres in area, SCAQMD has developed lookup tables showing the maximum daily onsite emissions that would not cause an exceedance of any LST. Proposed project onsite emissions should be less than the LST values for the proposed activity to not violate or substantially contribute to an existing or projected air quality standard. SCAQMD's LST methods were used to assess local onsite and offsite emissions of criteria air pollutants and precursors during construction and operation of the project. SCAQMD's LST methods were used in this analysis to evaluate ambient air quality impacts from proposed project construction. The LA South Central Los Angeles County Sensitive Receptor Area 12 (SRA 12) thresholds were used for the project site, as shown in Table 4.

**Table 4. Localized Significant Thresholds for SRA 12**

Project Phase	Source-Receptor Distance (m)	Localized Significance Threshold (lb/day)			
		NO <sub>x</sub> /NO <sub>2</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Construction	25	46	231	4	3
	50	46	342	12	4
Operations	25	46	231	1	1
	50	46	342	3	1

Notes: (1) Assumes a 1-acre project site for Source Receptor Area 12 and (2) SCAQMD has not developed LSTs for VOC or SO<sub>2</sub> emissions. VOC = volatile organic compounds; NO<sub>x</sub> = nitrogen oxides; CO = carbon monoxide; SO<sub>2</sub> = sulfur dioxide; PM<sub>10</sub> = particulate matter less than 10 microns in diameter; PM<sub>2.5</sub> = particulate matter less than 2.5 microns in diameter; lb/day = pounds per day

Source: South Coast Air Quality Management District, 2008.

The project site encompasses an area of a little more than 1 acre; therefore, the LST analysis assumed a 1-acre site. Distance to the nearest sensitive receptor was conservatively assumed to be 25 meters; actual distances to the nearest sensitive receptors are 140 feet (43 meters) or more. The LST methods allow the analyst to interpolate custom LSTs for distances between those in the published Mass Rate LST Lookup Table, but such was not done in this case to assure that the analysis was conservative.

## 7.0 IMPACT ANALYSIS

### Construction Assumptions

Construction of the project is expected to begin in December 2018 and to last approximately 5 months. The estimated construction workforce is a maximum of 8 to 10 workers per day. It was assumed that minimal grading would be required, and modular buildings would be installed on grade. Emissions were quantified for onsite construction equipment and offsite sources (haul trucks) transiting within the SCAB. Estimated peak-day emissions assume overlaps of construction tasks, based on the anticipated construction schedule and equipment utilization. Construction equipment exhaust, fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>), and motor vehicle travel to and from the site were modeled. Offsite construction emissions were estimated for worker commutes and haul trucks.

Construction activity-generated air pollutant activities include typical on-road vehicles including, but not be limited to, flat bed and haul trucks and asphalt trucks. These emissions sources would primarily use diesel fuel, emitting combustion exhaust gases such as volatile organic compounds (VOC), CO, nitrogen oxides (NO<sub>x</sub>), sulfur oxides (SO<sub>x</sub>), PM<sub>10</sub>, and PM<sub>2.5</sub>. Offsite emissions associated with vehicle trips to and from the project site during construction would be dispersed throughout the region and would have a nominal local impact in the project site vicinity.

The construction sequence of the proposed project would consist of mobilization, site preparation, site work, paving, finishing, and demobilization. Air quality could be impacted by combustion emissions from fossil-fueled off-road equipment and construction vehicles; VOC emissions from applying asphalt, pavement markings, and architectural coatings; and road dust. Construction equipment for the activities described above could include, but would not be limited to, backhoes, generators, vehicles, paving machines, and air compressors. Project construction emissions include exhaust, fugitive dust, particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) from earthmoving activities, and vehicle trips to and from the project site for construction workers, material delivery, and hauling.

### Operations Assumptions

The operations of the project would generate a small number of motor vehicle trips, estimated to be less than 129 trips per day, which would not exceed regional thresholds. Offsite operations-related emissions associated with the daily operations of the proposed project would result in a null generation of criteria air pollutant and TAC emissions. The day-to-day operations activity of the project after construction would generate offsite emissions from a variety of sources. The project would be a temporary facility serving homeless individuals. Operation-related offsite mobile-source emissions would primarily include vehicle trips by employees and homeless patrons to the facility. The day-to-day operations activity of the project after construction would generate onsite emissions from a variety of sources. The project would be used as a temporary facility serving homeless individuals. Operational onsite emissions may be both direct and indirect emissions, and they would be generated by area, mobile, and energy sources.

### Construction

Project emissions were compared to the project-specific local emission LST threshold values in Table 4 to determine the significance of project impacts. Table 5A summarizes construction emissions for a peak construction day on which the greatest number of construction equipment would be used. Construction activities for the proposed project would generate maximum daily emissions of approximately 0.9 pound (lb) of VOC, 7.4 lb of NO<sub>x</sub>, 7.5 lb of CO, <0.00 lb of SO<sub>2</sub>, 0.9 lb of PM<sub>10</sub>, and 0.5 lb of PM<sub>2.5</sub>. Fugitive dust would be controlled per SCAQMD Rule 401 (*Visible Emissions*) and Rule 403 (*Fugitive Dust*), which apply to construction sites in the SCAB. Project emissions were compared to the project-specific LST values in the previously referenced Table 4 to determine the significance of

project impacts. Table 5A shows emissions from constructing the proposed project. As shown in Table 5A, the peak daily construction emissions would not exceed any of the SCAQMD daily LST thresholds for construction.

**Table 5A. Maximum Daily Construction-Related Emissions (lb/day)**

Source/Description	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Onsite	0.7	6.6	6.0	<0.00	0.5	0.4
Offsite	0.2	0.8	1.5	<0.00	0.4	0.1
<b>Total Construction</b>	<b>0.9</b>	<b>7.4</b>	<b>7.5</b>	<b>&lt;0.00</b>	<b>0.9</b>	<b>0.5</b>
SCAQMD Regional Thresholds (MDT for Construction from Table 3)	75	100	550	150	150	55
Exceeds Regional Thresholds	No	No	No	No	No	No
SCAQMD Localized Thresholds (from Table 4)	NA	46	231	NA	4	3
Exceeds Localized Significance Threshold?	NA	No	No	No	No	No
Notes: VOC – volatile organic compounds; NO <sub>x</sub> – nitrogen oxides; CO – carbon monoxide; SO <sub>2</sub> – sulfur dioxide; PM <sub>10</sub> – particulates under 10 microns; PM <sub>2.5</sub> – particulates under 2.5 microns. lb – pound; NA – not applicable; SCAQMD – South Coast Air Quality Management District; LST – Localized Significance Threshold; SRA – Source Receptor Area. Project emissions were estimated using the CalEEMod screening model.						

Source: See Appendix A.

The data demonstrate that at no time during construction of the proposed project would maximum daily emissions exceed an applicable SCAQMD threshold of significance for regional and local emissions. Local and regional air pollutant emissions generated by construction of the proposed project would not cause a violation of an air quality standard or contribute to an existing violation. Therefore, the project would have no significant effect on air quality because it would not violate any air quality standard.

**Operation:**

After construction, day-to-day activities associated with operation of the project would generate emissions from a variety of sources. Operational emissions may be both direct and indirect emissions, and they would be generated by area, mobile, and energy sources. Area sources include sources such as the use of consumer products (e.g., cleaning products, aerosols), landscape maintenance equipment, and periodic architectural coatings. The project would be used as a facility serving homeless individuals. Mobile-source emissions would primarily include vehicle trips by employees, day laborers, and homeless patrons to the facility.

The facility would staff up to 16 employees at a time, generating approximately 13 peak-hour round-trips and approximately 129 trips per day overall to and from the facility. The day-to-day activities of the project were quantified using CalEEMod. The estimated daily project criteria air pollutant emissions from operations are shown in Table 5B.

**Table 5B. Maximum Daily Operational Emissions (lb/day)**

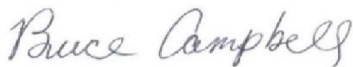
Source/Description	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Onsite	0.7	0.2	3.0	0.0	0.0	0.0
Offsite	0.3	1.5	4.2	0.0	1.1	0.3
Total Operational	<b>1.0</b>	<b>1.7</b>	<b>7.2</b>	<b>0.0</b>	<b>1.1</b>	<b>0.3</b>
SCAQMD Mass Daily Threshold (regional)	55	55	550	150	150	55
Exceed Regional Threshold?	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
SCAQMD Localized Threshold	NA	46	231	N/A	1	1
Exceed Localized Significance Threshold?	<b>NA</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Notes: VOC – volatile organic compounds; NO <sub>x</sub> – nitrogen oxides; CO – carbon monoxide; SO <sub>2</sub> – sulfur dioxide; PM <sub>10</sub> – particulates under 10 microns; PM <sub>2.5</sub> – particulates under 2.5 microns. lb – pound; NA – not applicable; SCAQMD – South Coast Air Quality Management District; LST – Localized Significance Threshold; SRA – Source Receptor Area. Project emissions were estimated using the CalEEMod screening model.						

Source: See Appendix A.

As indicated in Tables 5A and 5B, the project would result in construction and operational emissions that would not exceed SCAQMD criteria air pollutant thresholds and would not violate ambient air quality standards or contribute substantially to a related existing violation. As such, the project would not result in a significant effect related to air quality.

Should you have any questions or concerns, or need additional information, please contact me via e-mail at [bruce.campbell@parsons.com](mailto:bruce.campbell@parsons.com).

Sincerely,



Bruce Campbell, AICP  
 CEQA/NEPA Specialist

Enclosure:

Attachment 1: CalEEMod Output Results

## 8.0 REFERENCES

California Air Pollution Control Officers Association. 2017. *California Emissions Estimator Model (CalEEMod)*.

California Air Resources Board (CARB). 2016, *Federal and State Ambient Air Quality Standards*.

South Coast Air Quality Management District. 1993. *CEQA Handbook*.

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United States Environmental Protection Agency (USEPA). 2018a. *The Greenbook Nonattainment Areas for Criteria Pollutants*. Available at <http://www.epa.gov/air/oaqps/greenbk/index.html>.

———. 2018. *Criteria Air Pollutants*. Available at [www.epa.gov/criteria-air-pollutants](http://www.epa.gov/criteria-air-pollutants).

United States Geological Survey. 2018. *South Gate Quadrangle, California, Los Angeles County Topographic Map, 7.5-Minute Series*.

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

**Attachment 1**  
**CALEEMOD Output Files**

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

**LABOE Imperial Bridge Housing**  
**Los Angeles-South Coast County, Winter**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Congregate Care (Assisted Living)	35.00	Dwelling Unit	1.70	29,800.00	100

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2019
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

**1.3 User Entered Comments & Non-Default Data**

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 2 of 26

Date: 10/24/2018 10:01 PM

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Project Characteristics -

Land Use - entered custom number for sf of development

Construction Phase - Custom Schedule

Off-road Equipment - custom equipment list

Off-road Equipment - Custom equipment list

Off-road Equipment - custom equipment list

Off-road Equipment - custom equipment list

Off-road Equipment - custom equipment list

Trips and VMT - custom worker numbers

Grading - custom acreage

Architectural Coating - no architectural coating

Vehicle Trips - custom trip rates. Based on # of staff plus 9x2 (for each parking space)

Woodstoves - no fireplaces

Area Coating - No architectural coating

Construction Off-road Equipment Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Residential_Exterior	20115	0
tblAreaCoating	Area_Residential_Interior	60345	0
tblAreaCoating	ReapplicationRatePercent	10	0
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	200.00	88.00
tblConstructionPhase	NumDays	20.00	3.00

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 3 of 26

Date: 10/24/2018 10:01 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

tblConstructionPhase	NumDays	4.00	29.00
tblConstructionPhase	NumDays	10.00	7.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblGrading	AcresOfGrading	0.00	1.70
tblLandUse	LandUseSquareFeet	35,000.00	29,800.00
tblLandUse	LotAcreage	2.19	1.70
tblOffRoadEquipment	HorsePower	132.00	80.00
tblOffRoadEquipment	HorsePower	97.00	30.00
tblOffRoadEquipment	HorsePower	97.00	30.00
tblOffRoadEquipment	HorsePower	84.00	5.00
tblOffRoadEquipment	HorsePower	80.00	20.00
tblOffRoadEquipment	HorsePower	65.00	70.00
tblOffRoadEquipment	HorsePower	84.00	5.00
tblOffRoadEquipment	LoadFactor	0.29	0.09
tblOffRoadEquipment	LoadFactor	0.36	0.50
tblOffRoadEquipment	LoadFactor	0.37	0.67
tblOffRoadEquipment	LoadFactor	0.37	0.11
tblOffRoadEquipment	LoadFactor	0.74	0.06
tblOffRoadEquipment	LoadFactor	0.38	0.08
tblOffRoadEquipment	LoadFactor	0.37	0.08
tblOffRoadEquipment	LoadFactor	0.74	0.50
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 4 of 26

Date: 10/24/2018 10:01 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	6.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	5.00	8.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
tblTripsAndVMT	WorkerTripNumber	25.00	10.00
tblTripsAndVMT	WorkerTripNumber	5.00	8.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

**2.0 Emissions Summary**

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 5 of 26

Date: 10/24/2018 10:01 PM

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**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.5804	2.7142	3.6235	5.4800e-003	0.2762	0.1779	0.4541	0.0637	0.1637	0.2275	0.0000	552.4107	552.4107	0.1007	0.0000	554.9283
2019	0.7414	6.5958	6.1349	0.0105	0.3177	0.4119	0.6451	0.0752	0.3791	0.4417	0.0000	1,047.5697	1,047.5697	0.2401	0.0000	1,053.5718
Maximum	0.7414	6.5958	6.1349	0.0105	0.3177	0.4119	0.6451	0.0752	0.3791	0.4417	0.0000	1,047.5697	1,047.5697	0.2401	0.0000	1,053.5718

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.5804	2.7142	3.6235	5.4800e-003	0.2420	0.1779	0.4199	0.0601	0.1637	0.2238	0.0000	552.4107	552.4107	0.1007	0.0000	554.9283
2019	0.7414	6.5958	6.1349	0.0105	0.2836	0.4119	0.6451	0.0715	0.3791	0.4417	0.0000	1,047.5697	1,047.5697	0.2401	0.0000	1,053.5718
Maximum	0.7414	6.5958	6.1349	0.0105	0.2836	0.4119	0.6451	0.0715	0.3791	0.4417	0.0000	1,047.5697	1,047.5697	0.2401	0.0000	1,053.5718

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	11.51	0.00	3.11	5.31	0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.00

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 6 of 26

Date: 10/24/2018 10:01 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.7366	0.5271	3.1119	3.3000e-003		0.0558	0.0558		0.0558	0.0558	0.0000	635.1993	635.1993	0.0172	0.0116	639.0707
Energy	0.0139	0.1184	0.0504	7.6000e-004		9.5700e-003	9.5700e-003		9.5700e-003	9.5700e-003		151.1252	151.1252	2.9000e-003	2.7700e-003	152.0233
Mobile	0.2705	1.4517	4.2173	0.0135	1.0913	0.0160	1.1072	0.2921	0.0150	0.3071		1,374.7190	1,374.7190	0.0787		1,376.6865
<b>Total</b>	<b>1.0210</b>	<b>2.0972</b>	<b>7.3796</b>	<b>0.0176</b>	<b>1.0913</b>	<b>0.0813</b>	<b>1.1726</b>	<b>0.2921</b>	<b>0.0804</b>	<b>0.3725</b>	<b>0.0000</b>	<b>2,161.0435</b>	<b>2,161.0435</b>	<b>0.0988</b>	<b>0.0143</b>	<b>2,167.7804</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.6789	0.0336	2.9019	1.5000e-004		0.0159	0.0159		0.0159	0.0159	0.0000	5.1993	5.1993	5.1000e-003	0.0000	5.3269
Energy	0.0139	0.1184	0.0504	7.6000e-004		9.5700e-003	9.5700e-003		9.5700e-003	9.5700e-003		151.1252	151.1252	2.9000e-003	2.7700e-003	152.0233
Mobile	0.2705	1.4517	4.2173	0.0135	1.0913	0.0160	1.1072	0.2921	0.0150	0.3071		1,374.7190	1,374.7190	0.0787		1,376.6865
<b>Total</b>	<b>0.9632</b>	<b>1.6037</b>	<b>7.1696</b>	<b>0.0145</b>	<b>1.0913</b>	<b>0.0414</b>	<b>1.1327</b>	<b>0.2921</b>	<b>0.0405</b>	<b>0.3326</b>	<b>0.0000</b>	<b>1,531.0435</b>	<b>1,531.0435</b>	<b>0.0867</b>	<b>2.7700e-003</b>	<b>1,534.0367</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 7 of 26

Date: 10/24/2018 10:01 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	5.66	23.53	2.85	17.90	0.00	49.05	3.40	0.00	49.63	10.71	0.00	29.15	29.15	12.23	80.66	29.23

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	12/17/2018	12/19/2018	5	3	
2	Grading	Grading	12/19/2018	1/28/2019	5	29	
3	Building Construction	Building Construction	1/28/2019	5/29/2019	5	88	
4	Paving	Paving	5/29/2019	6/6/2019	5	7	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.7

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 8 of 26

Date: 10/24/2018 10:01 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	8.00	30	0.67
Grading	Generator Sets	1	4.00	5	0.06
Grading	Graders	0	6.00	187	0.41
Grading	Rollers	2	4.00	20	0.08
Grading	Rubber Tired Dozers	0	6.00	247	0.40
Grading	Skid Steer Loaders	2	4.00	70	0.08
Grading	Tractors/Loaders/Backhoes	1	8.00	30	0.11
Building Construction	Cranes	1	1.00	231	0.09
Building Construction	Forklifts	0	6.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Pavers	0	6.00	130	0.42
Paving	Paving Equipment	2	8.00	80	0.50
Paving	Rollers	0	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Demolition	Generator Sets	1	8.00	5	0.50

**Trips and VMT**

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 9 of 26

Date: 10/24/2018 10:01 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	2	8.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	10.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	1	10.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	2	8.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3517	1.6890	1.8826	1.8800e-003		0.1285	0.1285		0.1182	0.1182		190.0533	190.0533	0.0592		191.5325
<b>Total</b>	<b>0.3517</b>	<b>1.6890</b>	<b>1.8826</b>	<b>1.8800e-003</b>		<b>0.1285</b>	<b>0.1285</b>		<b>0.1182</b>	<b>0.1182</b>		<b>190.0533</b>	<b>190.0533</b>	<b>0.0592</b>		<b>191.5325</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 10 of 26

Date: 10/24/2018 10:01 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

**3.2 Demolition - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.7900e-003	0.1228	0.0368	2.6000e-004	6.4000e-003	8.8000e-004	7.2800e-003	1.8400e-003	8.4000e-004	2.6800e-003		27.4150	27.4150	1.9800e-003		27.4644
Worker	0.0489	0.0369	0.3978	9.5000e-004	0.0894	8.0000e-004	0.0902	0.0237	7.4000e-004	0.0245		94.4481	94.4481	3.5500e-003		94.5349
<b>Total</b>	<b>0.0537</b>	<b>0.1598</b>	<b>0.4347</b>	<b>1.2100e-003</b>	<b>0.0958</b>	<b>1.6800e-003</b>	<b>0.0975</b>	<b>0.0256</b>	<b>1.5800e-003</b>	<b>0.0271</b>		<b>121.8611</b>	<b>121.8611</b>	<b>5.5300e-003</b>		<b>121.9994</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
OffRoad	0.3517	1.6890	1.8826	1.8800e-003		0.1285	0.1285		0.1182	0.1182	0.0000	190.0533	190.0533	0.0592		191.5325
<b>Total</b>	<b>0.3517</b>	<b>1.6890</b>	<b>1.8826</b>	<b>1.8800e-003</b>		<b>0.1285</b>	<b>0.1285</b>		<b>0.1182</b>	<b>0.1182</b>	<b>0.0000</b>	<b>190.0533</b>	<b>190.0533</b>	<b>0.0592</b>		<b>191.5325</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 11 of 26

Date: 10/24/2018 10:01 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

**3.2 Demolition - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.7900e-003	0.1228	0.0368	2.6000e-004	6.4000e-003	8.8000e-004	7.2800e-003	1.8400e-003	8.4000e-004	2.6800e-003		27.4150	27.4150	1.9800e-003		27.4644
Worker	0.0489	0.0369	0.3978	9.5000e-004	0.0894	8.0000e-004	0.0902	0.0237	7.4000e-004	0.0245		94.4481	94.4481	3.5500e-003		94.5349
<b>Total</b>	<b>0.0537</b>	<b>0.1598</b>	<b>0.4347</b>	<b>1.2100e-003</b>	<b>0.0958</b>	<b>1.6800e-003</b>	<b>0.0975</b>	<b>0.0256</b>	<b>1.5800e-003</b>	<b>0.0271</b>		<b>121.8611</b>	<b>121.8611</b>	<b>5.5300e-003</b>		<b>121.9994</b>

**3.3 Grading - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0622	0.0000	0.0622	6.7100e-003	0.0000	6.7100e-003			0.0000			0.0000
Off Road	0.1091	0.6964	0.7722	9.4000e-004		0.0458	0.0458		0.0422	0.0422		95.0238	95.0238	0.0296		95.7633
<b>Total</b>	<b>0.1091</b>	<b>0.6964</b>	<b>0.7722</b>	<b>9.4000e-004</b>	<b>0.0622</b>	<b>0.0458</b>	<b>0.1080</b>	<b>6.7100e-003</b>	<b>0.0422</b>	<b>0.0489</b>		<b>95.0238</b>	<b>95.0238</b>	<b>0.0296</b>		<b>95.7633</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 12 of 26

Date: 10/24/2018 10:01 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

**3.3 Grading - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.7900e-003	0.1228	0.0368	2.6000e-004	6.4000e-003	8.8000e-004	7.2800e-003	1.8400e-003	8.4000e-004	2.6800e-003		27.4150	27.4150	1.9800e-003		27.4644
Worker	0.0612	0.0462	0.4973	1.1900e-003	0.1118	1.0000e-003	0.1128	0.0296	9.2000e-004	0.0306		118.0576	118.0576	4.4400e-003		118.1687
<b>Total</b>	<b>0.0659</b>	<b>0.1690</b>	<b>0.5341</b>	<b>1.4500e-003</b>	<b>0.1182</b>	<b>1.8800e-003</b>	<b>0.1201</b>	<b>0.0315</b>	<b>1.7600e-003</b>	<b>0.0332</b>		<b>145.4726</b>	<b>145.4726</b>	<b>6.4200e-003</b>		<b>145.6331</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0280	0.0000	0.0280	3.0200e-003	0.0000	3.0200e-003			0.0000			0.0000
Off Road	0.1091	0.6964	0.7722	9.4000e-004		0.0458	0.0458		0.0422	0.0422	0.0000	95.0238	95.0238	0.0296		95.7633
<b>Total</b>	<b>0.1091</b>	<b>0.6964</b>	<b>0.7722</b>	<b>9.4000e-004</b>	<b>0.0280</b>	<b>0.0458</b>	<b>0.0738</b>	<b>3.0200e-003</b>	<b>0.0422</b>	<b>0.0452</b>	<b>0.0000</b>	<b>95.0238</b>	<b>95.0238</b>	<b>0.0296</b>		<b>95.7633</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 13 of 26

Date: 10/24/2018 10:01 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

**3.3 Grading - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.7900e-003	0.1228	0.0368	2.6000e-004	6.4000e-003	8.8000e-004	7.2800e-003	1.8400e-003	8.4000e-004	2.6800e-003		27.4150	27.4150	1.9800e-003		27.4644
Worker	0.0612	0.0462	0.4973	1.1900e-003	0.1118	1.0000e-003	0.1128	0.0296	9.2000e-004	0.0306		118.0576	118.0576	4.4400e-003		118.1687
<b>Total</b>	<b>0.0659</b>	<b>0.1690</b>	<b>0.5341</b>	<b>1.4500e-003</b>	<b>0.1182</b>	<b>1.8800e-003</b>	<b>0.1201</b>	<b>0.0315</b>	<b>1.7600e-003</b>	<b>0.0332</b>		<b>145.4726</b>	<b>145.4726</b>	<b>6.4200e-003</b>		<b>145.6331</b>

**3.3 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0622	0.0000	0.0622	6.7100e-003	0.0000	6.7100e-003			0.0000			0.0000
Off Road	0.1007	0.6617	0.7614	9.4000e-004		0.0411	0.0411		0.0378	0.0378		93.5251	93.5251	0.0296		94.2649
<b>Total</b>	<b>0.1007</b>	<b>0.6617</b>	<b>0.7614</b>	<b>9.4000e-004</b>	<b>0.0622</b>	<b>0.0411</b>	<b>0.1033</b>	<b>6.7100e-003</b>	<b>0.0378</b>	<b>0.0445</b>		<b>93.5251</b>	<b>93.5251</b>	<b>0.0296</b>		<b>94.2649</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 14 of 26

Date: 10/24/2018 10:01 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

**3.3 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.3300e-003	0.1159	0.0339	2.5000e-004	6.4000e-003	7.5000e-004	7.1500e-003	1.8400e-003	7.2000e-004	2.5600e-003		27.1277	27.1277	1.9100e-003		27.1754
Worker	0.0554	0.0407	0.4425	1.1500e-003	0.1118	9.6000e-004	0.1127	0.0296	8.9000e-004	0.0305		114.2131	114.2131	3.9300e-003		114.3113
<b>Total</b>	<b>0.0597</b>	<b>0.1565</b>	<b>0.4763</b>	<b>1.4000e-003</b>	<b>0.1182</b>	<b>1.7100e-003</b>	<b>0.1199</b>	<b>0.0315</b>	<b>1.6100e-003</b>	<b>0.0331</b>		<b>141.3408</b>	<b>141.3408</b>	<b>5.8400e-003</b>		<b>141.4867</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0280	0.0000	0.0280	3.0200e-003	0.0000	3.0200e-003			0.0000			0.0000
Off-Road	0.1007	0.6617	0.7614	9.4000e-004		0.0411	0.0411		0.0378	0.0378	0.0000	93.5251	93.5251	0.0296		94.2649
<b>Total</b>	<b>0.1007</b>	<b>0.6617</b>	<b>0.7614</b>	<b>9.4000e-004</b>	<b>0.0280</b>	<b>0.0411</b>	<b>0.0691</b>	<b>3.0200e-003</b>	<b>0.0378</b>	<b>0.0408</b>	<b>0.0000</b>	<b>93.5251</b>	<b>93.5251</b>	<b>0.0296</b>		<b>94.2649</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 15 of 26

Date: 10/24/2018 10:01 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

**3.3 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.3300e-003	0.1159	0.0339	2.5000e-004	6.4000e-003	7.5000e-004	7.1500e-003	1.8400e-003	7.2000e-004	2.5600e-003		27.1277	27.1277	1.9100e-003		27.1754
Worker	0.0554	0.0407	0.4425	1.1500e-003	0.1118	9.6000e-004	0.1127	0.0296	8.9000e-004	0.0305		114.2131	114.2131	3.9300e-003		114.3113
<b>Total</b>	<b>0.0597</b>	<b>0.1565</b>	<b>0.4763</b>	<b>1.4000e-003</b>	<b>0.1182</b>	<b>1.7100e-003</b>	<b>0.1199</b>	<b>0.0315</b>	<b>1.6100e-003</b>	<b>0.0331</b>		<b>141.3408</b>	<b>141.3408</b>	<b>5.8400e-003</b>		<b>141.4867</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off Road	0.0202	0.2408	0.0919	2.3000e-004		0.0102	0.0102		9.3900e-003	9.3900e-003		22.8977	22.8977	7.2400e-003		23.0788
<b>Total</b>	<b>0.0202</b>	<b>0.2408</b>	<b>0.0919</b>	<b>2.3000e-004</b>		<b>0.0102</b>	<b>0.0102</b>		<b>9.3900e-003</b>	<b>9.3900e-003</b>		<b>22.8977</b>	<b>22.8977</b>	<b>7.2400e-003</b>		<b>23.0788</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 16 of 26

Date: 10/24/2018 10:01 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0173	0.4635	0.1354	1.0200e-003	0.0256	3.0000e-003	0.0296	7.3700e-003	2.8700e-003	0.0102		108.5108	108.5108	7.6200e-003		108.7014
Worker	0.0554	0.0407	0.4425	1.1500e-003	0.1118	9.6000e-004	0.1127	0.0296	8.9000e-004	0.0305		114.2131	114.2131	3.9300e-003		114.3113
<b>Total</b>	<b>0.0727</b>	<b>0.5042</b>	<b>0.5779</b>	<b>2.1700e-003</b>	<b>0.1374</b>	<b>3.9600e-003</b>	<b>0.1414</b>	<b>0.0370</b>	<b>3.7600e-003</b>	<b>0.0408</b>		<b>222.7239</b>	<b>222.7239</b>	<b>0.0116</b>		<b>223.0127</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off Road	0.0202	0.2408	0.0919	2.3000e-004		0.0102	0.0102		9.3900e-003	9.3900e-003	0.0000	22.8977	22.8977	7.2400e-003		23.0788
<b>Total</b>	<b>0.0202</b>	<b>0.2408</b>	<b>0.0919</b>	<b>2.3000e-004</b>		<b>0.0102</b>	<b>0.0102</b>		<b>9.3900e-003</b>	<b>9.3900e-003</b>	<b>0.0000</b>	<b>22.8977</b>	<b>22.8977</b>	<b>7.2400e-003</b>		<b>23.0788</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 17 of 26

Date: 10/24/2018 10:01 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0173	0.4635	0.1354	1.0200e-003	0.0256	3.0000e-003	0.0296	7.3700e-003	2.8700e-003	0.0102		108.5108	108.5108	7.6200e-003		108.7014
Worker	0.0554	0.0407	0.4425	1.1500e-003	0.1118	9.6000e-004	0.1127	0.0296	8.9000e-004	0.0305		114.2131	114.2131	3.9300e-003		114.3113
<b>Total</b>	<b>0.0727</b>	<b>0.5042</b>	<b>0.5779</b>	<b>2.1700e-003</b>	<b>0.1374</b>	<b>3.9600e-003</b>	<b>0.1414</b>	<b>0.0370</b>	<b>3.7600e-003</b>	<b>0.0408</b>		<b>222.7239</b>	<b>222.7239</b>	<b>0.0116</b>		<b>223.0127</b>

**3.5 Paving - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off Road	0.5998	5.7024	5.0773	6.9000e-003		0.3962	0.3962		0.3645	0.3645		683.4500	683.4500	0.2162		688.8559
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5998</b>	<b>5.7024</b>	<b>5.0773</b>	<b>6.9000e-003</b>		<b>0.3962</b>	<b>0.3962</b>		<b>0.3645</b>	<b>0.3645</b>		<b>683.4500</b>	<b>683.4500</b>	<b>0.2162</b>		<b>688.8559</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 18 of 26

Date: 10/24/2018 10:01 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

**3.5 Paving - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.3300e-003	0.1159	0.0339	2.5000e-004	6.4000e-003	7.5000e-004	7.1500e-003	1.8400e-003	7.2000e-004	2.5600e-003		27.1277	27.1277	1.9100e-003		27.1754
Worker	0.0443	0.0325	0.3540	9.2000e-004	0.0894	7.7000e-004	0.0902	0.0237	7.1000e-004	0.0244		91.3705	91.3705	3.1400e-003		91.4491
<b>Total</b>	<b>0.0486</b>	<b>0.1484</b>	<b>0.3878</b>	<b>1.1700e-003</b>	<b>0.0958</b>	<b>1.5200e-003</b>	<b>0.0973</b>	<b>0.0256</b>	<b>1.4300e-003</b>	<b>0.0270</b>		<b>118.4982</b>	<b>118.4982</b>	<b>5.0500e-003</b>		<b>118.6244</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
OffRoad	0.5998	5.7024	5.0773	6.9000e-003		0.3962	0.3962		0.3645	0.3645	0.0000	683.4500	683.4500	0.2162		688.8559
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5998</b>	<b>5.7024</b>	<b>5.0773</b>	<b>6.9000e-003</b>		<b>0.3962</b>	<b>0.3962</b>		<b>0.3645</b>	<b>0.3645</b>	<b>0.0000</b>	<b>683.4500</b>	<b>683.4500</b>	<b>0.2162</b>		<b>688.8559</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 19 of 26

Date: 10/24/2018 10:01 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

**3.5 Paving - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.3300e-003	0.1159	0.0339	2.5000e-004	6.4000e-003	7.5000e-004	7.1500e-003	1.8400e-003	7.2000e-004	2.5600e-003		27.1277	27.1277	1.9100e-003		27.1754
Worker	0.0443	0.0325	0.3540	9.2000e-004	0.0894	7.7000e-004	0.0902	0.0237	7.1000e-004	0.0244		91.3705	91.3705	3.1400e-003		91.4491
<b>Total</b>	<b>0.0486</b>	<b>0.1484</b>	<b>0.3878</b>	<b>1.1700e-003</b>	<b>0.0958</b>	<b>1.5200e-003</b>	<b>0.0973</b>	<b>0.0256</b>	<b>1.4300e-003</b>	<b>0.0270</b>		<b>118.4982</b>	<b>118.4982</b>	<b>5.0500e-003</b>		<b>118.6244</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 20 of 26

Date: 10/24/2018 10:01 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2705	1.4517	4.2173	0.0135	1.0913	0.0160	1.1072	0.2921	0.0150	0.3071		1,374.7190	1,374.7190	0.0787		1,376.6865
Unmitigated	0.2705	1.4517	4.2173	0.0135	1.0913	0.0160	1.1072	0.2921	0.0150	0.3071		1,374.7190	1,374.7190	0.0787		1,376.6865

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	95.90	77.00	85.40	490,668	490,668
Total	95.90	77.00	85.40	490,668	490,668

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted Living)	14.70	5.90	8.70	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.548007	0.045751	0.200309	0.124119	0.017133	0.006025	0.018861	0.028423	0.002391	0.002469	0.004915	0.000672	0.000925

5.0 Energy Detail

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 21 of 26

Date: 10/24/2018 10:01 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0139	0.1184	0.0504	7.6000e-004		9.5700e-003	9.5700e-003		9.5700e-003	9.5700e-003		151.1252	151.1252	2.9000e-003	2.7700e-003	152.0233
NaturalGas Unmitigated	0.0139	0.1184	0.0504	7.6000e-004		9.5700e-003	9.5700e-003		9.5700e-003	9.5700e-003		151.1252	151.1252	2.9000e-003	2.7700e-003	152.0233

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 22 of 26

Date: 10/24/2018 10:01 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

**5.2 Energy by Land Use - NaturalGas**

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	1284.56	0.0139	0.1184	0.0504	7.6000e-004		9.5700e-003	9.5700e-003		9.5700e-003	9.5700e-003		151.1252	151.1252	2.9000e-003	2.7700e-003	152.0233
<b>Total</b>		<b>0.0139</b>	<b>0.1184</b>	<b>0.0504</b>	<b>7.6000e-004</b>		<b>9.5700e-003</b>	<b>9.5700e-003</b>		<b>9.5700e-003</b>	<b>9.5700e-003</b>		<b>151.1252</b>	<b>151.1252</b>	<b>2.9000e-003</b>	<b>2.7700e-003</b>	<b>152.0233</b>

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	1.28456	0.0139	0.1184	0.0504	7.6000e-004		9.5700e-003	9.5700e-003		9.5700e-003	9.5700e-003		151.1252	151.1252	2.9000e-003	2.7700e-003	152.0233
<b>Total</b>		<b>0.0139</b>	<b>0.1184</b>	<b>0.0504</b>	<b>7.6000e-004</b>		<b>9.5700e-003</b>	<b>9.5700e-003</b>		<b>9.5700e-003</b>	<b>9.5700e-003</b>		<b>151.1252</b>	<b>151.1252</b>	<b>2.9000e-003</b>	<b>2.7700e-003</b>	<b>152.0233</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
 Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 23 of 26

Date: 10/24/2018 10:01 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6789	0.0336	2.9019	1.5000e-004		0.0159	0.0159		0.0159	0.0159	0.0000	5.1993	5.1993	5.1000e-003	0.0000	5.3269
Unmitigated	0.7366	0.5271	3.1119	3.3000e-003		0.0558	0.0558		0.0558	0.0558	0.0000	635.1993	635.1993	0.0172	0.0116	639.0707

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 24 of 26

Date: 10/24/2018 10:01 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5900					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0578	0.4935	0.2100	3.1500e-003		0.0399	0.0399		0.0399	0.0399	0.0000	630.0000	630.0000	0.0121	0.0116	633.7438
Landscaping	0.0888	0.0336	2.9019	1.5000e-004		0.0159	0.0159		0.0159	0.0159		5.1993	5.1993	5.1000e-003		5.3269
<b>Total</b>	<b>0.7366</b>	<b>0.5271</b>	<b>3.1119</b>	<b>3.3000e-003</b>		<b>0.0558</b>	<b>0.0558</b>		<b>0.0558</b>	<b>0.0558</b>	<b>0.0000</b>	<b>635.1993</b>	<b>635.1993</b>	<b>0.0172</b>	<b>0.0116</b>	<b>639.0707</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 25 of 26

Date: 10/24/2018 10:01 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5900					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0888	0.0336	2.9019	1.5000e-004		0.0159	0.0159		0.0159	0.0159		5.1993	5.1993	5.1000e-003		5.3269
<b>Total</b>	<b>0.6789</b>	<b>0.0336</b>	<b>2.9019</b>	<b>1.5000e-004</b>		<b>0.0159</b>	<b>0.0159</b>		<b>0.0159</b>	<b>0.0159</b>	<b>0.0000</b>	<b>5.1993</b>	<b>5.1993</b>	<b>5.1000e-003</b>	<b>0.0000</b>	<b>5.3269</b>

**7.0 Water Detail**

---

**7.1 Mitigation Measures Water**

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

**8.0 Waste Detail**

---

**8.1 Mitigation Measures Waste**

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Winter

Institute Recycling and Composting Services

### 9.0 Operational Offroad

---

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

### 10.0 Stationary Equipment

---

#### Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

#### Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

#### User Defined Equipment

Equipment Type	Number
----------------	--------

### 11.0 Vegetation

---

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

**LABOE Imperial Bridge Housing**  
**Los Angeles-South Coast County, Annual**

**1.0 Project Characteristics**

---

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Congregate Care (Assisted Living)	35.00	Dwelling Unit	1.70	29,800.00	100

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2019
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

**1.3 User Entered Comments & Non-Default Data**

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 2 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

Project Characteristics -

Land Use - entered custom number for sf of development

Construction Phase - Custom Schedule

Off-road Equipment - custom equipment list

Off-road Equipment - Custom equipment list

Off-road Equipment - custom equipment list

Off-road Equipment - custom equipment list

Off-road Equipment - custom equipment list

Trips and VMT - custom worker numbers

Grading - custom acreage

Architectural Coating - no architectural coating

Vehicle Trips - custom trip rates. Based on # of staff plus 9x2 (for each parking space)

Woodstoves - no fireplaces

Area Coating - No architectural coating

Construction Off-road Equipment Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Residential_Exterior	20115	0
tblAreaCoating	Area_Residential_Interior	60345	0
tblAreaCoating	ReapplicationRatePercent	10	0
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	200.00	88.00
tblConstructionPhase	NumDays	20.00	3.00

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 3 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

tblConstructionPhase	NumDays	4.00	29.00
tblConstructionPhase	NumDays	10.00	7.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblGrading	AcresOfGrading	0.00	1.70
tblLandUse	LandUseSquareFeet	35,000.00	29,800.00
tblLandUse	LotAcreage	2.19	1.70
tblOffRoadEquipment	HorsePower	132.00	80.00
tblOffRoadEquipment	HorsePower	97.00	30.00
tblOffRoadEquipment	HorsePower	97.00	30.00
tblOffRoadEquipment	HorsePower	84.00	5.00
tblOffRoadEquipment	HorsePower	80.00	20.00
tblOffRoadEquipment	HorsePower	65.00	70.00
tblOffRoadEquipment	HorsePower	84.00	5.00
tblOffRoadEquipment	LoadFactor	0.29	0.09
tblOffRoadEquipment	LoadFactor	0.36	0.50
tblOffRoadEquipment	LoadFactor	0.37	0.67
tblOffRoadEquipment	LoadFactor	0.37	0.11
tblOffRoadEquipment	LoadFactor	0.74	0.06
tblOffRoadEquipment	LoadFactor	0.38	0.08
tblOffRoadEquipment	LoadFactor	0.37	0.08
tblOffRoadEquipment	LoadFactor	0.74	0.50
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 4 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	6.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	5.00	8.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
tblTripsAndVMT	WorkerTripNumber	25.00	10.00
tblTripsAndVMT	WorkerTripNumber	5.00	8.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

**2.0 Emissions Summary**

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 5 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	1.3800e-003	6.8900e-003	9.4200e-003	2.0000e-005	1.5600e-003	4.1000e-004	1.9700e-003	2.7000e-004	3.8000e-004	6.5000e-004	0.0000	1.4188	1.4188	2.4000e-004	0.0000	1.4246
2019	7.6400e-003	0.0619	0.0613	1.6000e-004	8.3200e-003	2.4400e-003	0.0108	2.0900e-003	2.2500e-003	4.3500e-003	0.0000	14.6543	14.6543	1.7700e-003	0.0000	14.6984
Maximum	7.6400e-003	0.0619	0.0613	1.6000e-004	8.3200e-003	2.4400e-003	0.0108	2.0900e-003	2.2500e-003	4.3500e-003	0.0000	14.6543	14.6543	1.7700e-003	0.0000	14.6984

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	1.3600e-003	6.6900e-003	9.4200e-003	2.0000e-005	1.0700e-003	4.1000e-004	1.4800e-003	2.2000e-004	3.8000e-004	6.0000e-004	0.0000	1.4188	1.4188	2.4000e-004	0.0000	1.4246
2019	7.6400e-003	0.0619	0.0613	1.6000e-004	7.8200e-003	2.4400e-003	0.0103	2.0400e-003	2.2500e-003	4.2900e-003	0.0000	14.6543	14.6543	1.7700e-003	0.0000	14.6984
Maximum	7.6400e-003	0.0619	0.0613	1.6000e-004	7.8200e-003	2.4400e-003	0.0103	2.0400e-003	2.2500e-003	4.2900e-003	0.0000	14.6543	14.6543	1.7700e-003	0.0000	14.6984

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	10.02	0.00	7.70	4.24	0.00	2.20	0.00	0.00	0.00	0.00	0.00	0.00

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 6 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-19-2018	1-18-2019	0.0135	0.0135
2	1-19-2019	4-18-2019	0.0277	0.0277
3	4-19-2019	7-18-2019	0.0330	0.0330
		Highest	0.0330	0.0330

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1195	0.0104	0.3654	6.0000e-005		2.4900e-003	2.4900e-003		2.4900e-003	2.4900e-003	0.0000	7.7337	7.7337	7.2000e-004	1.3000e-004	7.7906
Energy	2.5300e-003	0.0216	9.1900e-003	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	103.9341	103.9341	2.3400e-003	8.4000e-004	104.2443
Mobile	0.0463	0.2576	0.7472	2.3900e-003	0.1863	2.7700e-003	0.1890	0.0499	2.6000e-003	0.0525	0.0000	219.9188	219.9188	0.0124	0.0000	220.2296
Waste						0.0000	0.0000		0.0000	0.0000	6.4835	0.0000	6.4835	0.3832	0.0000	16.0627
Water						0.0000	0.0000		0.0000	0.0000	0.7235	25.4337	26.1572	0.0749	1.8900e-003	28.5898
<b>Total</b>	<b>0.1683</b>	<b>0.2896</b>	<b>1.1218</b>	<b>2.5900e-003</b>	<b>0.1863</b>	<b>7.0100e-003</b>	<b>0.1933</b>	<b>0.0499</b>	<b>6.8400e-003</b>	<b>0.0568</b>	<b>7.2070</b>	<b>357.0203</b>	<b>364.2273</b>	<b>0.4736</b>	<b>2.8500e-003</b>	<b>376.9169</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 7 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1188	4.2000e-003	0.3627	2.0000e-005		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	0.5896	0.5896	5.8000e-004	0.0000	0.6041
Energy	2.5300e-003	0.0216	9.1900e-003	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	103.9341	103.9341	2.3400e-003	8.4000e-004	104.2443
Mobile	0.0463	0.2576	0.7472	2.3900e-003	0.1863	2.7700e-003	0.1890	0.0499	2.6000e-003	0.0525	0.0000	219.9188	219.9188	0.0124	0.0000	220.2296
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.5788	21.5835	22.1623	0.0600	1.5100e-003	24.1109
<b>Total</b>	<b>0.1676</b>	<b>0.2834</b>	<b>1.1192</b>	<b>2.5500e-003</b>	<b>0.1863</b>	<b>6.5100e-003</b>	<b>0.1928</b>	<b>0.0499</b>	<b>6.3400e-003</b>	<b>0.0563</b>	<b>0.5788</b>	<b>346.0260</b>	<b>346.6048</b>	<b>0.0753</b>	<b>2.3500e-003</b>	<b>349.1888</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.43</b>	<b>2.13</b>	<b>0.23</b>	<b>1.54</b>	<b>0.00</b>	<b>7.13</b>	<b>0.26</b>	<b>0.00</b>	<b>7.31</b>	<b>0.88</b>	<b>91.97</b>	<b>3.08</b>	<b>4.84</b>	<b>84.10</b>	<b>17.54</b>	<b>7.36</b>

**3.0 Construction Detail**

**Construction Phase**

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 8 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	12/17/2018	12/19/2018	5	3	
2	Grading	Grading	12/19/2018	1/28/2019	5	29	
3	Building Construction	Building Construction	1/28/2019	5/29/2019	5	88	
4	Paving	Paving	5/29/2019	6/6/2019	5	7	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 1.7**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 9 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	8.00	30	0.67
Grading	Generator Sets	1	4.00	5	0.06
Grading	Graders	0	6.00	187	0.41
Grading	Rollers	2	4.00	20	0.08
Grading	Rubber Tired Dozers	0	6.00	247	0.40
Grading	Skid Steer Loaders	2	4.00	70	0.08
Grading	Tractors/Loaders/Backhoes	1	8.00	30	0.11
Building Construction	Cranes	1	1.00	231	0.09
Building Construction	Forklifts	0	6.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Pavers	0	6.00	130	0.42
Paving	Paving Equipment	2	8.00	80	0.50
Paving	Rollers	0	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Demolition	Generator Sets	1	8.00	5	0.50

**Trips and VMT**

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 10 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	2	8.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	10.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	1	10.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	2	8.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.3000e-004	2.5300e-003	2.8200e-003	0.0000		1.9000e-004	1.9000e-004		1.8000e-004	1.8000e-004	0.0000	0.2586	0.2586	8.0000e-005	0.0000	0.2606
<b>Total</b>	<b>5.3000e-004</b>	<b>2.5300e-003</b>	<b>2.8200e-003</b>	<b>0.0000</b>		<b>1.9000e-004</b>	<b>1.9000e-004</b>		<b>1.8000e-004</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>0.2586</b>	<b>0.2586</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>0.2606</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 11 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

**3.2 Demolition - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	1.9000e-004	5.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0379	0.0379	0.0000	0.0000	0.0380
Worker	7.0000e-005	6.0000e-005	6.1000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1307	0.1307	0.0000	0.0000	0.1308
<b>Total</b>	<b>8.0000e-005</b>	<b>2.5000e-004</b>	<b>6.6000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.1686</b>	<b>0.1686</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1687</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off Road	5.3000e-004	2.5300e-003	2.8200e-003	0.0000		1.9000e-004	1.9000e-004		1.8000e-004	1.8000e-004	0.0000	0.2586	0.2586	8.0000e-005	0.0000	0.2606
<b>Total</b>	<b>5.3000e-004</b>	<b>2.5300e-003</b>	<b>2.8200e-003</b>	<b>0.0000</b>		<b>1.9000e-004</b>	<b>1.9000e-004</b>		<b>1.8000e-004</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>0.2586</b>	<b>0.2586</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>0.2606</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 12 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

**3.2 Demolition - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	1.9000e-004	5.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0379	0.0379	0.0000	0.0000	0.0380
Worker	7.0000e-005	6.0000e-005	6.1000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1307	0.1307	0.0000	0.0000	0.1308
<b>Total</b>	<b>8.0000e-005</b>	<b>2.5000e-004</b>	<b>6.6000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.1686</b>	<b>0.1686</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1687</b>

**3.3 Grading - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.0000e-004	0.0000	9.0000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off Road	4.8000e-004	3.1300e-003	3.4700e-003	0.0000		2.1000e-004	2.1000e-004		1.9000e-004	1.9000e-004	0.0000	0.3879	0.3879	1.2000e-004	0.0000	0.3909
<b>Total</b>	<b>4.8000e-004</b>	<b>3.1300e-003</b>	<b>3.4700e-003</b>	<b>0.0000</b>	<b>9.0000e-004</b>	<b>2.1000e-004</b>	<b>1.1100e-003</b>	<b>1.0000e-004</b>	<b>1.9000e-004</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>0.3879</b>	<b>0.3879</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.3909</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 13 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

3.3 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	5.6000e-004	1.6000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1137	0.1137	1.0000e-005	0.0000	0.1139
Worker	2.5000e-004	2.1000e-004	2.2900e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.4900	0.4900	2.0000e-005	0.0000	0.4904
<b>Total</b>	<b>2.7000e-004</b>	<b>7.7000e-004</b>	<b>2.4500e-003</b>	<b>1.0000e-005</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>5.3000e-004</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.6037</b>	<b>0.6037</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.6043</b>

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.1000e-004	0.0000	4.1000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8000e-004	3.1300e-003	3.4700e-003	0.0000		2.1000e-004	2.1000e-004		1.9000e-004	1.9000e-004	0.0000	0.3879	0.3879	1.2000e-004	0.0000	0.3909
<b>Total</b>	<b>4.9000e-004</b>	<b>3.1300e-003</b>	<b>3.4700e-003</b>	<b>0.0000</b>	<b>4.1000e-004</b>	<b>2.1000e-004</b>	<b>6.2000e-004</b>	<b>4.0000e-005</b>	<b>1.9000e-004</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>0.3879</b>	<b>0.3879</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.3909</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 14 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

3.3 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	5.6000e-004	1.6000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1137	0.1137	1.0000e-005	0.0000	0.1139
Worker	2.5000e-004	2.1000e-004	2.2900e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.4900	0.4900	2.0000e-005	0.0000	0.4904
<b>Total</b>	<b>2.7000e-004</b>	<b>7.7000e-004</b>	<b>2.4500e-003</b>	<b>1.0000e-005</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>5.3000e-004</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.6037</b>	<b>0.6037</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.6043</b>

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.0000e-004	0.0000	9.0000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0100e-003	6.6200e-003	7.6100e-003	1.0000e-005		4.1000e-004	4.1000e-004		3.8000e-004	3.8000e-004	0.0000	0.8485	0.8485	2.7000e-004	0.0000	0.8552
<b>Total</b>	<b>1.0100e-003</b>	<b>6.6200e-003</b>	<b>7.6100e-003</b>	<b>1.0000e-005</b>	<b>9.0000e-004</b>	<b>4.1000e-004</b>	<b>1.3100e-003</b>	<b>1.0000e-004</b>	<b>3.8000e-004</b>	<b>4.8000e-004</b>	<b>0.0000</b>	<b>0.8485</b>	<b>0.8485</b>	<b>2.7000e-004</b>	<b>0.0000</b>	<b>0.8552</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 15 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

**3.3 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	1.1800e-003	3.2000e-004	0.0000	6.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2501	0.2501	2.0000e-005	0.0000	0.2505
Worker	5.0000e-004	4.2000e-004	4.5400e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	1.0534	1.0534	4.0000e-005	0.0000	1.0543
<b>Total</b>	<b>5.4000e-004</b>	<b>1.6000e-003</b>	<b>4.8600e-003</b>	<b>1.0000e-005</b>	<b>1.1600e-003</b>	<b>2.0000e-005</b>	<b>1.1800e-003</b>	<b>3.1000e-004</b>	<b>2.0000e-005</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>1.3034</b>	<b>1.3034</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>1.3047</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.1000e-004	0.0000	4.1000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0100e-003	6.6200e-003	7.6100e-003	1.0000e-005		4.1000e-004	4.1000e-004		3.8000e-004	3.8000e-004	0.0000	0.8484	0.8484	2.7000e-004	0.0000	0.8552
<b>Total</b>	<b>1.0100e-003</b>	<b>6.6200e-003</b>	<b>7.6100e-003</b>	<b>1.0000e-005</b>	<b>4.1000e-004</b>	<b>4.1000e-004</b>	<b>8.2000e-004</b>	<b>4.0000e-005</b>	<b>3.8000e-004</b>	<b>4.2000e-004</b>	<b>0.0000</b>	<b>0.8484</b>	<b>0.8484</b>	<b>2.7000e-004</b>	<b>0.0000</b>	<b>0.8552</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 16 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

**3.3 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	1.1800e-003	3.2000e-004	0.0000	6.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2501	0.2501	2.0000e-005	0.0000	0.2505
Worker	5.0000e-004	4.2000e-004	4.5400e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	1.0534	1.0534	4.0000e-005	0.0000	1.0543
<b>Total</b>	<b>5.4000e-004</b>	<b>1.6000e-003</b>	<b>4.8600e-003</b>	<b>1.0000e-005</b>	<b>1.1600e-003</b>	<b>2.0000e-005</b>	<b>1.1800e-003</b>	<b>3.1000e-004</b>	<b>2.0000e-005</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>1.3034</b>	<b>1.3034</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>1.3047</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off Road	8.9000e-004	0.0106	4.0400e-003	1.0000e-005		4.5000e-004	4.5000e-004		4.1000e-004	4.1000e-004	0.0000	0.9140	0.9140	2.9000e-004	0.0000	0.9212
<b>Total</b>	<b>8.9000e-004</b>	<b>0.0106</b>	<b>4.0400e-003</b>	<b>1.0000e-005</b>		<b>4.5000e-004</b>	<b>4.5000e-004</b>		<b>4.1000e-004</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>0.9140</b>	<b>0.9140</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>0.9212</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 17 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.4000e-004	0.0208	5.6900e-003	5.0000e-005	1.1100e-003	1.3000e-004	1.2400e-003	3.2000e-004	1.3000e-004	4.5000e-004	0.0000	4.4011	4.4011	2.9000e-004	0.0000	4.4085
Worker	2.2000e-003	1.8400e-003	0.0200	5.0000e-005	4.8200e-003	4.0000e-005	4.8600e-003	1.2800e-003	4.0000e-005	1.3200e-003	0.0000	4.6348	4.6348	1.6000e-004	0.0000	4.6388
<b>Total</b>	<b>2.9400e-003</b>	<b>0.0226</b>	<b>0.0257</b>	<b>1.0000e-004</b>	<b>5.9300e-003</b>	<b>1.7000e-004</b>	<b>6.1000e-003</b>	<b>1.6000e-003</b>	<b>1.7000e-004</b>	<b>1.7700e-003</b>	<b>0.0000</b>	<b>9.0359</b>	<b>9.0359</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>9.0472</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off Road	8.9000e-004	0.0106	4.0400e-003	1.0000e-005		4.5000e-004	4.5000e-004		4.1000e-004	4.1000e-004	0.0000	0.9140	0.9140	2.9000e-004	0.0000	0.9212
<b>Total</b>	<b>8.9000e-004</b>	<b>0.0106</b>	<b>4.0400e-003</b>	<b>1.0000e-005</b>		<b>4.5000e-004</b>	<b>4.5000e-004</b>		<b>4.1000e-004</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>0.9140</b>	<b>0.9140</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>0.9212</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 18 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.4000e-004	0.0208	5.6900e-003	5.0000e-005	1.1100e-003	1.3000e-004	1.2400e-003	3.2000e-004	1.3000e-004	4.5000e-004	0.0000	4.4011	4.4011	2.9000e-004	0.0000	4.4085
Worker	2.2000e-003	1.8400e-003	0.0200	5.0000e-005	4.8200e-003	4.0000e-005	4.8600e-003	1.2800e-003	4.0000e-005	1.3200e-003	0.0000	4.6348	4.6348	1.6000e-004	0.0000	4.6388
<b>Total</b>	<b>2.9400e-003</b>	<b>0.0226</b>	<b>0.0257</b>	<b>1.0000e-004</b>	<b>5.9300e-003</b>	<b>1.7000e-004</b>	<b>6.1000e-003</b>	<b>1.6000e-003</b>	<b>1.7000e-004</b>	<b>1.7700e-003</b>	<b>0.0000</b>	<b>9.0359</b>	<b>9.0359</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>9.0472</b>

**3.5 Paving - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off Road	2.1000e-003	0.0200	0.0178	2.0000e-005		1.3900e-003	1.3900e-003		1.2800e-003	1.2800e-003	0.0000	2.1701	2.1701	6.9000e-004	0.0000	2.1872
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.1000e-003</b>	<b>0.0200</b>	<b>0.0178</b>	<b>2.0000e-005</b>		<b>1.3900e-003</b>	<b>1.3900e-003</b>		<b>1.2800e-003</b>	<b>1.2800e-003</b>	<b>0.0000</b>	<b>2.1701</b>	<b>2.1701</b>	<b>6.9000e-004</b>	<b>0.0000</b>	<b>2.1872</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 19 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

**3.5 Paving - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	4.1000e-004	1.1000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0875	0.0875	1.0000e-005	0.0000	0.0877
Worker	1.4000e-004	1.2000e-004	1.2700e-003	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2949	0.2949	1.0000e-005	0.0000	0.2952
<b>Total</b>	<b>1.5000e-004</b>	<b>5.3000e-004</b>	<b>1.3800e-003</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>0.3825</b>	<b>0.3825</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.3829</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off Road	2.1000e-003	0.0200	0.0178	2.0000e-005		1.3900e-003	1.3900e-003		1.2800e-003	1.2800e-003	0.0000	2.1701	2.1701	6.9000e-004	0.0000	2.1872
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.1000e-003</b>	<b>0.0200</b>	<b>0.0178</b>	<b>2.0000e-005</b>		<b>1.3900e-003</b>	<b>1.3900e-003</b>		<b>1.2800e-003</b>	<b>1.2800e-003</b>	<b>0.0000</b>	<b>2.1701</b>	<b>2.1701</b>	<b>6.9000e-004</b>	<b>0.0000</b>	<b>2.1872</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 20 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

**3.5 Paving - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	4.1000e-004	1.1000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0875	0.0875	1.0000e-005	0.0000	0.0877
Worker	1.4000e-004	1.2000e-004	1.2700e-003	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2949	0.2949	1.0000e-005	0.0000	0.2952
<b>Total</b>	<b>1.5000e-004</b>	<b>5.3000e-004</b>	<b>1.3800e-003</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>0.3825</b>	<b>0.3825</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.3829</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 21 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0463	0.2576	0.7472	2.3900e-003	0.1863	2.7700e-003	0.1890	0.0499	2.6000e-003	0.0525	0.0000	219.9188	219.9188	0.0124	0.0000	220.2296
Unmitigated	0.0463	0.2576	0.7472	2.3900e-003	0.1863	2.7700e-003	0.1890	0.0499	2.6000e-003	0.0525	0.0000	219.9188	219.9188	0.0124	0.0000	220.2296

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	95.90	77.00	85.40	490,668	490,668
Total	95.90	77.00	85.40	490,668	490,668

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted Living)	14.70	5.90	8.70	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.548007	0.045751	0.200309	0.124119	0.017133	0.006025	0.018861	0.028423	0.002391	0.002469	0.004915	0.000672	0.000925

5.0 Energy Detail

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 22 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	78.9136	78.9136	1.8600e-003	3.9000e-004	79.0751
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	78.9136	78.9136	1.8600e-003	3.9000e-004	79.0751
NaturalGas Mitigated	2.5300e-003	0.0216	9.1900e-003	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	25.0205	25.0205	4.8000e-004	4.6000e-004	25.1692
NaturalGas Unmitigated	2.5300e-003	0.0216	9.1900e-003	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	25.0205	25.0205	4.8000e-004	4.6000e-004	25.1692

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 23 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Congregate Care (Assisted Living)	468866	2.5300e-003	0.0216	9.1900e-003	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	25.0205	25.0205	4.8000e-004	4.6000e-004	25.1692
<b>Total</b>		<b>2.5300e-003</b>	<b>0.0216</b>	<b>9.1900e-003</b>	<b>1.4000e-004</b>		<b>1.7500e-003</b>	<b>1.7500e-003</b>		<b>1.7500e-003</b>	<b>1.7500e-003</b>	<b>0.0000</b>	<b>25.0205</b>	<b>25.0205</b>	<b>4.8000e-004</b>	<b>4.6000e-004</b>	<b>25.1692</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Congregate Care (Assisted Living)	468866	2.5300e-003	0.0216	9.1900e-003	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	25.0205	25.0205	4.8000e-004	4.6000e-004	25.1692
<b>Total</b>		<b>2.5300e-003</b>	<b>0.0216</b>	<b>9.1900e-003</b>	<b>1.4000e-004</b>		<b>1.7500e-003</b>	<b>1.7500e-003</b>		<b>1.7500e-003</b>	<b>1.7500e-003</b>	<b>0.0000</b>	<b>25.0205</b>	<b>25.0205</b>	<b>4.8000e-004</b>	<b>4.6000e-004</b>	<b>25.1692</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
 Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 24 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	141686	78.9136	1.8600e-003	3.9000e-004	79.0751
<b>Total</b>		<b>78.9136</b>	<b>1.8600e-003</b>	<b>3.9000e-004</b>	<b>79.0751</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	141686	78.9136	1.8600e-003	3.9000e-004	79.0751
<b>Total</b>		<b>78.9136</b>	<b>1.8600e-003</b>	<b>3.9000e-004</b>	<b>79.0751</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
 Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 25 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1188	4.2000e-003	0.3627	2.0000e-005		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	0.5896	0.5896	5.8000e-004	0.0000	0.6041
Unmitigated	0.1195	0.0104	0.3654	6.0000e-005		2.4900e-003	2.4900e-003		2.4900e-003	2.4900e-003	0.0000	7.7337	7.7337	7.2000e-004	1.3000e-004	7.7906

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
 Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 26 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1077					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	7.2000e-004	6.1700e-003	2.6300e-003	4.0000e-005		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004	0.0000	7.1441	7.1441	1.4000e-004	1.3000e-004	7.1865
Landscaping	0.0111	4.2000e-003	0.3627	2.0000e-005		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	0.5896	0.5896	5.8000e-004	0.0000	0.6041
<b>Total</b>	<b>0.1195</b>	<b>0.0104</b>	<b>0.3654</b>	<b>6.0000e-005</b>		<b>2.4900e-003</b>	<b>2.4900e-003</b>		<b>2.4900e-003</b>	<b>2.4900e-003</b>	<b>0.0000</b>	<b>7.7337</b>	<b>7.7337</b>	<b>7.2000e-004</b>	<b>1.3000e-004</b>	<b>7.7906</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 27 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	tons/yr										MT/yr						
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1077					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0111	4.2000e-003	0.3627	2.0000e-005		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	0.5896	0.5896	5.8000e-004	0.0000	0.6041	
<b>Total</b>	<b>0.1188</b>	<b>4.2000e-003</b>	<b>0.3627</b>	<b>2.0000e-005</b>		<b>1.9900e-003</b>	<b>1.9900e-003</b>		<b>1.9900e-003</b>	<b>1.9900e-003</b>	<b>0.0000</b>	<b>0.5896</b>	<b>0.5896</b>	<b>5.8000e-004</b>	<b>0.0000</b>	<b>0.6041</b>	

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 28 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	22.1623	0.0600	1.5100e-003	24.1109
Unmitigated	26.1572	0.0749	1.8800e-003	28.5898

## 7.2 Water by Land Use

### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	2.28039 / 1.43764	26.1572	0.0749	1.8800e-003	28.5898
<b>Total</b>		<b>26.1572</b>	<b>0.0749</b>	<b>1.8800e-003</b>	<b>28.5898</b>

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 29 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	1.82431 / 1.34994	22.1623	0.0600	1.5100e-003	24.1109
<b>Total</b>		<b>22.1623</b>	<b>0.0600</b>	<b>1.5100e-003</b>	<b>24.1109</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

2316 E. Imperial Highway Bridge Housing (Willowbrook)  
 Air Quality Technical Memorandum

CalEEMod Version: CalEEMod.2016.3.2

Page 30 of 32

Date: 10/24/2018 10:03 PM

LABOE Imperial Bridge Housing - Los Angeles-South Coast County, Annual

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	6.4835	0.3832	0.0000	16.0627

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	31.94	6.4835	0.3832	0.0000	16.0627
<b>Total</b>		<b>6.4835</b>	<b>0.3832</b>	<b>0.0000</b>	<b>16.0627</b>

**8.2 Waste by Land Use**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)		0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

**ATTACHMENT B - NOISE INFORMATION**

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# Sirius Environmental

## Memorandum

**RE:** 1426 Paloma, Class 32 Exemption, Noise Analysis

**From:** Wendy Lockwood, Principal

**Date:** February 5, 2019

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### NOISE CHARACTERISTICS AND EFFECTS

**Characteristics of Sound.** Sound is technically described in terms of the loudness (amplitude) and frequency (pitch) of the sound. The standard unit of measurement for sound is the decibel (dB). The human ear is not equally sensitive to sound at all frequencies. The “A-weighted scale,” abbreviated dBA, reflects the normal hearing sensitivity range of the human ear. On this scale, the range of human hearing extends from approximately 0 to 140 dBA.<sup>1</sup> **Figure 1** provides examples of A-weighted noise levels from common sounds.

**Noise Definitions.** This noise analysis discusses sound levels in terms of Community Noise Equivalent Level (CNEL), Day-Night Noise Level ( $L_{dn}$ ), and Equivalent Noise Level ( $L_{eq}$ ).

*Community Noise Equivalent Level (CNEL).* CNEL is an average sound level during a 24-hour period. CNEL is a noise measurement scale, which accounts for noise source, distance, single event duration, single event occurrence, frequency, and time of day. Human reaction to sound between 7:00 p.m. and 10:00 p.m. is as if the sound were actually 5 dBA higher than if it occurred from 7:00 a.m. to 7:00 p.m. From 10:00 p.m. to 7:00 a.m., humans perceive sound as if it were 10 dBA higher due to the lower background level. Hence, the CNEL is obtained by adding an additional 5 dBA to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and 10 dBA to sound levels in the night from 10:00 p.m. to 7:00 a.m. Because CNEL accounts for human sensitivity to sound, the CNEL 24-hour figure is always a higher number than the actual 24-hour average.<sup>2</sup>

*Day-Night Noise Level ( $L_{dn}$ ).*  $L_{dn}$  is similar to CNEL except that a 10 dBA penalty is added from 10:00 p.m. to 7:00 a.m. There is no 5 dBA penalty that exists for the CNEL calculation.<sup>3</sup>

*Equivalent Noise Level ( $L_{eq}$ ).*  $L_{eq}$  is the average noise level on an energy basis for any specific time period. The  $L_{eq}$  for one hour is the energy average noise level during the hour. The average noise level is based on the energy content (acoustic energy) of the sound.  $L_{eq}$  can be thought of as the level of a continuous noise which has the same energy content as the fluctuating noise level. The equivalent noise level is expressed in units of dBA.<sup>4</sup>

**Effects of Noise.** Noise is generally defined as unwanted sound. The degree to which noise can impact the human environment ranges from levels that interfere with speech and sleep (annoyance and nuisance) to levels that cause adverse health effects (hearing loss and psychological effects). Human response to noise is subjective and can vary greatly from person to person. Factors that influence individual response include the intensity, frequency, and pattern of noise, the amount of background noise present before the intruding noise, and the nature of work or human activity that is exposed to the noise source.

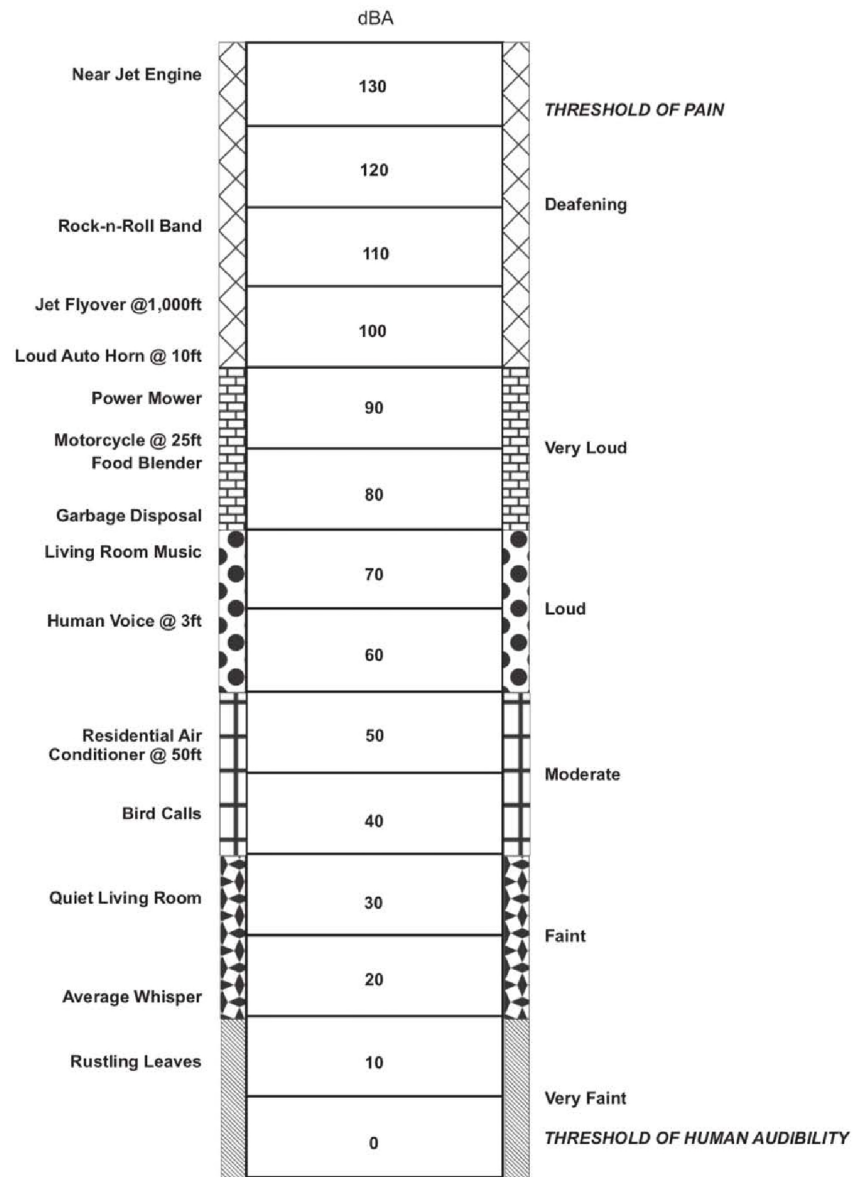
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<sup>1</sup> California Department of Transportation, *Technical Noise Supplement*, September 2013.

<sup>2</sup> *Ibid.*

<sup>3</sup> *Ibid.*

<sup>4</sup> *Ibid.*



SOURCE: Cowan, James P., Handbook of Environmental Acoustics.

Figure 1: A-Weighted Decibel Scale

**Audible Noise Changes.** Studies have shown that the smallest perceptible change in sound level for a person with normal hearing sensitivity is approximately 3 dBA. A change of at least 5 dBA is readily perceptible to a person with normal hearing sensitivity. A 10-dBA increase is subjectively heard as a doubling in loudness.<sup>5</sup>

Noise levels decrease as the distance from the noise source to the receiver increases. Noise generated by a stationary noise source, or “point source,” will decrease by approximately 6 dBA over hard surfaces (e.g., reflective surfaces such as parking lots or smooth bodies of water) and 7.5 dBA over soft surfaces (e.g., absorptive surfaces such as soft dirt, grass, or scattered bushes and trees) for each doubling of the distance.<sup>6</sup> For example, if a noise source produces a noise level of 89 dBA at a reference distance of 50 feet, then the noise level would be 83 dBA at a distance of 100 feet from the noise source, 77 dBA at a distance of 200 feet, and so on. Noise generated by a mobile source will decrease by approximately 3 dBA over hard surfaces and 4.8 dBA over soft surfaces for each doubling of the distance.

Noise is most audible when there is a direct line-of-sight.<sup>7</sup> Solid barriers, such as walls, berms, or buildings that break the line-of-sight between the source and the receiver greatly reduce noise levels from the source since sound can only reach the receiver by bending over the top of the barrier. However, if a barrier is not solid, high or long enough to break the line-of-sight from the source to the receiver, its effectiveness is greatly reduced.

## REGULATORY REQUIREMENTS

**Department of Health Services.** The Department of Health Services, Environmental Health Division, has published the Guidelines for Noise and Land Use Compatibility (the State Guidelines) which recommend guidelines for local governments to use when setting standards for human exposure to noise and preparing noise elements for general plans. The State Guidelines, which is illustrated in **Table 1**, indicates that residential land use and other noise sensitive receptors generally should be located in areas where outdoor ambient noise levels do not exceed 65 to 70 dBA (CNEL or  $L_{dn}$ ).

Application of this compatibility matrix to development projects is not mandated by the Department of Health Services; however, each jurisdiction is required to consider the State Guidelines when developing its General Plan Noise Element and when determining acceptable noise levels within its community. According to the State Guidelines, an exterior noise level of 60 dBA CNEL is considered to be a “normally acceptable” noise level for single-family, duplex, and mobile homes involving normal, conventional construction, without any special noise insulation requirements. Exterior noise levels up to 65 dBA CNEL are typically considered “normally acceptable” for multi-family units and transient lodging without any special noise insulation requirements. Between these values and 70 dBA CNEL, exterior noise levels are typically considered “conditionally acceptable,” and residential construction should only occur after a detailed analysis of the noise reduction requirements is made and needed noise attenuation features are included in the project design. Exterior noise attenuation features include, but are not limited to, setbacks to place structures outside the conditionally acceptable noise contour and orientation.


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<sup>5</sup> California Department of Transportation, *Technical Noise Supplement*, September 2013.


<sup>6</sup> *Ibid.*


<sup>7</sup> Line-of-sight is an unobstructed visual path between the noise source and the noise receptor.

TABLE 1: GUIDELINES FOR NOISE COMPATIBLE LAND USE							
Land Use Category	Community Noise Exposure (dBA, CNEL)						
	55	60	65	70	75	80	
Residential - Low Density Single-Family, Duplex, Mobile Homes	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable
	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
Residential - Multi-Family	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
Transient Lodging - Motels Hotels	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
Schools, Libraries, Churches, Hospitals, Nursing Homes	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
Auditoriums, Concert Halls, Amphitheaters	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
Sports Arena, Outdoor Spectator Sports	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
Playgrounds, Neighborhood Parks	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
Golf Courses, Riding Stables, Water Recreation, Cemeteries	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
Office Buildings, Business Commercial and Professional	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
Industrial, Manufacturing, Utilities, Agriculture	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable

 Normally Acceptable - Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

 Conditionally Acceptable - New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply system or air conditioning will normally suffice.

 Normally Unacceptable - New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

 Clearly Unacceptable - New construction or development should generally not be undertaken.

**SOURCE:** California Office of Noise Control, Department of Health Services.

**City of Los Angeles General Plan Noise Element.** The Noise Element of the City of Los Angeles General Plan (General Plan) establishes CNEL guidelines for land use compatibility and includes a number of goals, objectives, and policies for land use planning purposes. The City of Los Angeles General Plan Noise Element identifies potentially significant noise sources, addresses vibration issues, identifies historic and current noise management approaches and guides the development of noise regulations. It addresses noise mitigation regulations, strategies and programs and delineates federal, state and City jurisdiction relative to rail, automotive, aircraft and nuisance noise.

**Los Angeles Municipal Code (LAMC).** The City of Los Angeles has a comprehensive set of regulations concerning the generation and control of noise that could adversely affect people and noise sensitive land uses that are located in four different Chapters of the Code—the Zoning Ordinance (Chapter I), the General Welfare Chapter (Chapter IV), Building Code (Chapter IX), and Noise Regulation Chapter (Chapter XI). There are numerous specific ordinances, many of which do not relate to the impact analysis presented below. This discussion summarizes the general regulations and focuses on the ordinances most relevant to the proposed project.

Regarding construction, Section 41.40 (Noise Due to Construction, Excavation Work – When Prohibited) in Chapter IV (Public Welfare) of the LAMC indicates that no construction or repair work shall be performed between the hours of 9:00 PM and 7:00 AM, since such activities would generate loud noises and disturb persons occupying sleeping quarters in any adjacent dwelling, hotel, apartment or other place of residence. No person, other than an individual home owner engaged in the repair or construction of his/her single-family dwelling, shall perform any construction or repair work of any kind or perform such work within 500 feet of land so occupied before 8:00 AM or after 6:00 PM on any Saturday or on a federal holiday, or at any time on Sunday. Under certain conditions, the City may grant a waiver to allow limited construction activities to occur outside of the limits described above.

LAMC Section 91.106.4.8, in the Building Code (LAMC Chapter IX) requires a construction site notice to be provided that includes the following information: job site address, permit number, name and phone number of the contractor and owner or owner's agent, hours of construction allowed by code or any discretionary approval for the sites, and City telephone numbers where violations can be reported. The notice shall be posted and maintained at the construction site prior to the start of construction and displayed in a location that is readily visible to the public and approved by the City's Department of Building and Safety.

Chapter XI (Noise Regulation) of the LAMC addresses sources of noise other than construction activities. Chapter XI is intended to prohibit unnecessary, excessive and annoying noises from all sources within the City. A noise level increase from certain regulated noise sources of 5 dBA over the existing or presumed ambient noise level at an adjacent property line is considered a violation of the Noise Regulations. The 5-dBA increase above ambient is applicable to City-regulated noise sources (e.g., mechanical equipment – LAMC Section 112.02), and it is applicable any time of the day.

LAMC Section 112.02 (Radios, Television Sets, and Similar Devices) prohibits any noise level caused by such use or operation which exceeds the ambient noise level on the premises of any other occupied property, or if a condominium, apartment house, duplex, or attached business, within any adjoining unit, by more than 5 dBA.

LAMC Section 112.02 (Air Conditioning, Refrigeration, Heating, Pumping, Filtering Equipment) requires that any heating, ventilation, and air conditioning (HVAC) system within any zone of the City not cause an increase in ambient noise levels on any other occupied property or if a condominium, apartment house, duplex, or attached business, within any adjoining unit to exceed the ambient noise level by more than 5 dBA.

Section 112.05 (Maximum Noise Level of Powered Equipment or Powered Hand Tools) of the LAMC specifies the maximum noise level of powered equipment or powered hand tools. Any powered

equipment or hand tool that produces a maximum noise level exceeding 75 dBA at a distance of 50 feet is prohibited. However, this noise limitation does not apply where compliance is technically infeasible. Technically infeasible means the above noise limitation cannot be met despite the use of mufflers, shields, sound barriers and/or any other noise reduction device or techniques during the operation of equipment.

Section 112.06 (Places of Public Entertainment) of the LAMC states that it is unlawful for any person to operate, play, or to permit the operation or playing of any radio, television receiver, phonograph, musical instrument, sound amplifying equipment, or similar device which produces, reproduces, or amplifies sound in any place of public entertainment at a sound level greater than 95 dBA at any point that is normally occupied by a customer, unless a conspicuous and legible sign is located outside such place, near each public entrance, stating: "WARNING: SOUND LEVELS WITHIN MAY CAUSE HEARING IMPAIRMENT."

Section 113.01 (Rubbish And Garbage Collection and Disposal) of the LAMC prohibits collecting or disposing of rubbish or garbage, to operate any refuse disposal truck, or to collect, load, pick up, transfer, unload, dump, discard, or dispose of any rubbish or garbage within 200 feet of any residential building between the hours of 9:00 p.m. and 6:00 a.m. of the following day, unless a permit therefore has been duly obtained beforehand from the Board of Police Commissioners.

Section 114.03 (Vehicles - Loading and Unloading) of the LAMC prohibits loading or unloading of any vehicle, or operation of any dollies, carts, forklifts, or other wheeled equipment, which cause any impulsive sound, raucous or unnecessary noise within 200 feet of any residential building between the hours of 10:00 p.m. and 7:00 a.m. of the following day, unless a permit therefore has been duly obtained beforehand from the Board of Police Commissioners. The permit program only applies to boundary areas defined by Section 114.03 (b) of the LAMC.

Section 116.01 (Loud, Unnecessary and Unusual Noise) of the LAMC states that it is unlawful for any person to willfully make or continue, or cause to be made or continued, any loud, unnecessary, and unusual noise which disturbs the peace or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area. The standard which may be considered in determining whether a violation of the provisions of this section exists may include, but not be limited to, the following:

- a) The level of noise;
- b) Whether the nature of the noise is usual or unusual;
- c) Whether the origin of the noise is natural or unnatural;
- d) The level and intensity of the background noise, if any;
- e) The proximity of the noise to residential sleeping facilities;
- f) The nature and zoning of the area within which the noise emanates;
- g) The density of the inhabitation of the area within which the noise emanates;
- h) The time of the day and night the noise occurs;
- i) The duration of the noise;
- j) Whether the noise is recurrent, intermittent, or constant; and
- k) Whether the noise is produced by a commercial or noncommercial activity.

## STANDARD CONDITIONS

In addition to the above regulations, the City of Los Angeles imposes the following standard conditions in their contracts (as applicable) that would reduce noise:

- Comply with the more stringent requirements of the current CITY or local noise ordinances, which may include:
  1. Construction of noise barriers;
  2. Use of low-noise-generating construction equipment;

3. Maintenance of mufflers and ancillary noise abatement equipment;
  4. Use of vibration pile drivers and other techniques that result in less noise than impact pile drivers;
  5. Scheduling high noise producing activities during periods that are least sensitive;
  6. Routing construction related truck traffic away from noise-sensitive areas;
  7. Reducing construction vehicle speeds.
- For projects under the City's Homeless Facilities Program, construction shall comply with a construction management plan with conditions incorporated into the project design that may include any of the following, or any other condition, as necessary to protect the health, safety, or convenience of affected sensitive receptors in the surrounding neighborhood:
    1. Construction or use of noise barriers, enclosures, or blankets;
    2. Use of low-noise, low vibration, low emission-generating construction equipment, e.g., Tier 4 engines;
    3. Maintenance of mufflers and ancillary noise abatement equipment;
    4. Use of vibration pile drivers and other techniques that result in less noise than impact pile drivers;
    5. Scheduling high noise producing activities during periods that are least sensitive;
    6. Routing construction related truck traffic away from noise-sensitive areas;
    7. Reducing construction vehicle speeds.
    8. Locate equipment as far as feasible from sensitive receptors.

## SENSITIVE RECEPTOR

The closest sensitive receptor is a private school (St. Turibius, Grades 1 through 8) located about 300 feet to the southeast of the back of the project. The sensitive receptor has no line of sight to the project because of intervening buildings. The school is 250 feet north of a freeway on ramp to I-10.

## IMPACTS

### Construction

Typical Outdoor Construction Noise levels for the noisiest phases of construction are shown in **Table 2** below.

<b>TABLE 2: TYPICAL OUTDOOR CONSTRUCTION NOISE LEVELS</b>	
<b>Construction Phase</b>	<b>Noise Levels at 50 Feet with Mufflers (dBA <math>L_{eq}</math>)</b>
Ground Clearing	82
Excavation, Grading	86
Foundations	77
Structural	83
Finishing	86

*Source: United States Environmental Protection Agency, Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.*

However, none of these activities are anticipated to occur with the proposed project because most construction would be internal to the building with very little exterior construction. Exterior construction would be associated with constructing a patio and installing HVAC on the roof. The construction of the patio and any shade structure would require 1 to 2 days and would involve use of hand-operated equipment only. Similarly installing HVAC on the roof would take only a few days and would similarly involve use of hand-operated equipment. Construction noise would be mostly interior to the project

building and exterior work on the patio would be shielded from the nearest sensitive receptor by existing buildings.

LAMC Section 41.40 regulates noise from construction activities. Exterior construction activities that generate noise are prohibited between the hours of 9:00 PM and 7:00 AM Monday through Friday, and between 6:00 PM and 8:00 AM on Saturday. Demolition and construction activities are prohibited on Sundays and all federal holidays. LAMC Section 112.05 indicates that any powered equipment or hand tool that produces a maximum noise level exceeding 75 dBA at a distance of 50 feet is prohibited unless reducing the noise level is technically infeasible. Noise mufflers and noise walls could reduce noise levels 10 to 20 dBA. The construction activities associated with the project would comply with these LAMC requirements. The construction noise would be temporary and would not be unusual for construction activity in urban areas, which is allowable in the zone and which therefore is reasonably anticipated to occur.

Municipal Code Sections 111.0 through 116.01 regulate noise including special noise sources and general noise. Noise from powered construction equipment or powered hand tools greater than 75 dBA at 50 feet is prohibited between the hours of 7 AM and 10 PM within 500 feet of a residential zone unless compliance is technically infeasible. It is unlawful for any person to make loud, unnecessary and unusual noise that disturbs the quiet of any neighborhood.

City of Los Angeles Building Regulations Ordinance No. 178,048, requires a construction site notice to be provided that includes the following information: job site address, permit number, name and phone number of the contractor and owner or owner's agent, hours of construction allowed by code or any discretionary approval for the site, and City telephone numbers where violations can be reported. The notice shall be posted and maintained at the construction site prior to the start of construction and displayed in a location that is readily visible to the public.

Construction noise is not unusual in an urban environment and would be of relatively short duration (four to six months). Most of the construction activity would be inside the building. Existing regulations as well as intervening structures would reduce noise levels well below 75 dBA at 50 feet. Therefore, there would be no significant effect; there are no unusual circumstances.

### **Operational Noise**

Upon completion and operation of the project, on-site operational noise would be generated by 1) heating, ventilation, and air conditioning equipment; 2) mobile source noise from cars; 3) shelter operations including people using the outdoor patio.

#### *Stationary Equipment*

The operation of on-site stationary sources of noise would be required to comply with the LAMC Section 112.02, which prohibits noise from air conditioning, refrigeration, heating, pumping, and filtering equipment from exceeding the ambient noise level on the premises of other occupied properties by more than five decibels. Compliance with these regulatory requirements would ensure noise impacts resulting from on-site stationary sources would not result in a significant effect. There are no unusual circumstances.

#### *Mobile Source Noise*

The project would generate approximately 151 trips spread throughout the day with about 14 trips during peak hours. In order for an increase in noise to be audible (an increase of approximately 3 dBA), traffic would have to double on area roadways. The project represents a relatively small fraction of trips on area

roadway and would result in a negligible increase in noise compared to existing conditions. Therefore, project traffic would not result in a significant effect; there are no unusual circumstances.

*Outdoor Activities*

The shelter would have an outdoor patio for use by project residents for recreating. There would be no outdoor public address system and people's voices would be shielded from the sensitive use (over 300 feet away) by intervening buildings and would not be audible above background levels. Therefore, outdoor activities would not result in a significant effect; there are no unusual circumstances.

Draft

**ATTACHMENT C - TRAFFIC INFORMATION**

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## TECHNICAL MEMORANDUM

Date: October 4, 2018  
To: Wendy Lockwood, Sirius Environmental  
From: Brian Marchetti, AICP  
Subject: Traffic Review – 1420 Paloma Street, Los Angeles  
*KOA Project JB81225*

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KOA prepared this traffic review, per the City of Los Angeles Department of transportation (LADOT) traffic study guidelines and policies, for the 119-bed transitional housing facility proposed by LA Family Housing. The Project location is 1420 Paloma Street, in the Downtown area of the City of Los Angeles.

### Conclusions

The proposed Project would generate a total of 151 daily weekday vehicle trips, including 14 a.m. peak hour trips and 14 p.m. peak hour trips. The LADOT minimum trip generation standards for traffic studies are 25 peak-hour trips or more for focused traffic studies and 43 peak-hour trips or more for full traffic studies. The County of Los Angeles Public Works minimum standard requirement for traffic studies is 500 or more daily trips.

A traffic impact study would not be required by LADOT for this project, based on the trip generation estimates provided in this document.

### Project Description and Location

The proposed Project would provide a shelter facility within a former clothing warehouse and warehouse space, which is in the process of vacating. The project is named Stabilization Interim Housing by the applicant.

Construction is required to remodel the existing interior into a housing facility with services and staff facilities. This will include 119 sleeping cubicles, Men's and Women's restrooms with sinks, toilets and showers, Staff Toilet Rooms, Staff offices including, Reception, (2) Intake, (2) Case Managers, Common Dining Area, Commercial Kitchen, Medical Station, and a Therapy Room.

There would be three typical shifts for shelter employees, with 30 during the day shift, 20 during the evening shift, and 10 during a night shift.



Program participants will stay until they find permanent housing. The average time before move-out is 60 days. Services will be provided on-site that will include mental health, case management, employment, housing location and accessing of government benefits.

### **Analysis Methodology**

For this traffic review of the proposed project, rates defined by the LADOT traffic study guidelines for Permanent Supportive Housing (PSH) were applied to create a project trip generation estimate.

Per the current Transportation Impact Study Guidelines document, published by LADOT and dated December 2016, special rates are defined for this proposed use and similar uses. The relevant text of the guidelines is as follows:

*“Residential or mixed-use developments that include Affordable Housing Units [as defined in LAMC 12.22-A.25 (b)] are eligible to use the trip generation rates presented in Table 5, which are based on the total number and type of dwelling units reserved as affordable. These trip generation rates are based on vehicle trip count data collected at affordable housing sites in the City of Los Angeles in 2016. These trip generation rates for Affordable Housing units are not subject to any of the aforementioned [trip credit] adjustments in this Section.”*

It is anticipated that auto-ownership rates for shelter populations are much lower than PSH populations, but on-site supportive staffing is generally higher for shelters than PSH, although on-site staffing varies substantially for each (PSH and shelters). The related PSH rates were applied to the proposed project, and credits for transit use, trip reduction measures, and other such credits were omitted from the analysis per the guidelines policies.

### **Trip Generation Estimate**

Trip LADOT trip generation rates for Permanent Supportive Housing were applied to calculate the trip generation for the proposed Project use.

Table 1 provides the Project trip generation calculations. It is estimated that the proposed Project would generate a total of 151 daily weekday vehicle trips, including 14 a.m. peak hour trips and 14 p.m. peak hour trips.

**Table 1 – Trip Generation**

ITE Code	Average Vehicle Trip	Intensity	Weekday						
			Daily	AM Peak Hour			PM Peak Hour		
			Total	Total	% In	% Out	Total	% In	% Out
<b>RATES</b>									
520	Units	per resident/unit	1.27	0.12	44%	56%	0.12	59%	41%
<b>TRIPS</b>									
520	Units/Residents	119	151	14	6	8	14	8	6

The proposed Project would not require a traffic impact study, as the peak-hour trip generation would fall under the 25-trip threshold defined by the City. The County of Los Angeles Public Works minimum standard requirement for traffic studies, for reference, is 500 or more daily trips, which is also not exceeded by the Project.

**Definition of Future Baseline/Pre-Project Conditions**

Planned projects were defined by development information held by LADOT Development Review staff. Planned/pending projects within 1.5-miles of the Project site were mapped and the trip generation of each was compiled/computed. This information was compiled to provide general information on area project cumulative traffic impacts.

Table 2 provides the trip generation summary of the cumulative projects compiled for this study. The projects as a whole would generate a total of 92,256 daily vehicle trips, including 6,152 trips in the a.m. peak hour and 8,335 trips in the p.m. peak hour. Many of the individual project trip totals in this table do not include pass-by trips, internal trips, high-frequency transit areas, and other credits that apply to these characteristics that would likely reduce these numbers.

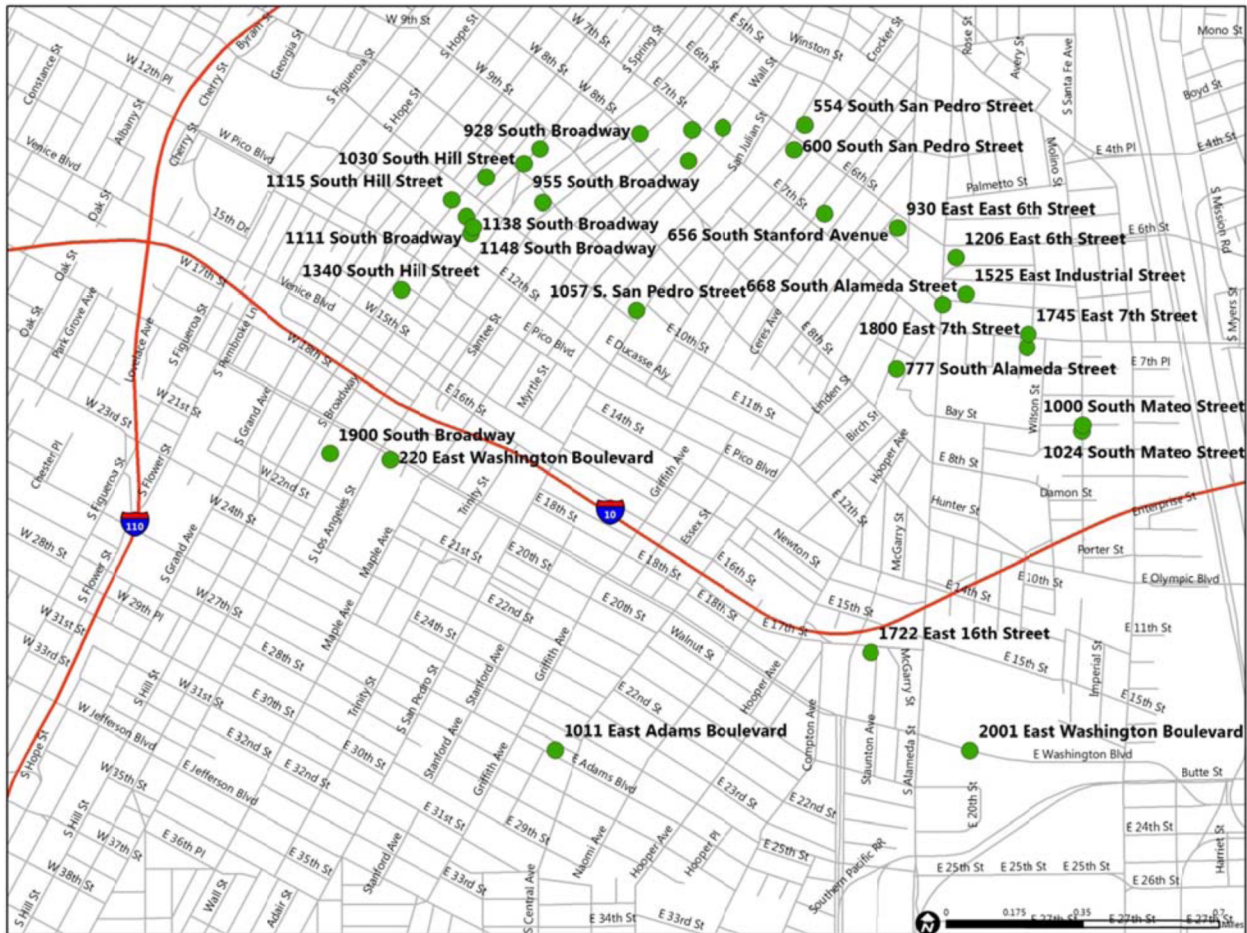
Given the low trip generation for the project, it is not anticipated that the project would contribute a considerable amount of traffic to cumulative impacts.

A map of these project locations is provided in Attachment A.

**Table 2 – Cumulative Projects Trip Generation**

FORECAST TRIP GENERATION											
Land Use	Address	Distance (Miles)	Intensity	Units	Daily	Weekday AM Total	Weekday AM IN	Weekday AM OUT	Weekday PM Total	Weekday PM IN	Weekday PM OUT
Apartments	1011 East Adams Boulevard	0.8	80	D.U.	60	41	11	30	10	10	0
Condominiums and Restaurant	1115 South Hill Street	1.0	80 D.U./6,850 KSF	D.U./KSF	543	-5	-45	40	43	50	-7
Mixed-Use (Retail, Other, Apartments, Mixed-Use)	220 East Washington Boulevard	0.8	357 Apts./1,535 KSF Retail/Mixed Use	Varies	2,113	156	38	118	178	125	53
Broadway Palace Apartments/Mixed-Use	928 South Broadway	1.0	667	D.U.	4,715	250	21	229	381	272	109
The City Market (Mixed-Use)	1057 S. San Pedro Street	0.5	Varies	Varies	16,433	1271	837	434	1589	632	957
Broadway Lots (Mixed-Use)	955 South Broadway	1.0	201	D.U.	1,275	93	21	72	117	74	43
Mixed-Use Project (391 Apartments, 411 KSF Office, 40KSF Retail)	1111 South Broadway	0.9	Varies	Varies	5,198	319	144	176	532	258	274
Apartments w/ Mixed-Use	1148 South Broadway	0.9	94	D.U.	553	38	8	30	50	32	18
The Reef - LA Mart/SOLA Village (900 Condos, 550 Apts, 143 KSF Retail, 180 KSF Office and Other) *	1900 South Broadway	1.0	Varies	Varies	12,030	942	390	552	1203	637	566
Camden Arts Mixed-Use (328 Apts, 27 KSF Office, 6.4 KSF Retail, 5.7 KSF Restaurant)	1525 East Industrial Street	0.8	Varies	Varies	2,288	29	24	5	155	86	69
Clinic/Assisted Living	649 South Wall Street	0.9	Becks	56	104	29	24	5	27	3	24
Mixed-Use (122 Apts, 3.2 KSF Retail, Small Office)	1800 East 7th Street	0.9	Varies	Varies	992	77	25	52	87	54	34
Restaurant	1722 East 16th Street	0.6	KSF	8,151	592	-2	-4	2	47	36	11
7th and Maple Mixed-Use (485 Condos, Small Retail and Restaurant)	701 South Maple Street	0.9	Varies	Varies	3,199	246	67	179	290	185	105
ROW DTLA Mixed-Use (117 KSF Restaurant, 66 KSF Retail, 85 KSF Office, Hotel 125 Rooms)	777 South Alameda Street	0.7	Varies	Varies	916	-306	-134	-172	-122	-157	22
Mixed-Use (379 Apartments, 26 KSF Retail)	110 South Main Street	0.9	Varies	Varies	385	112	9	103	92	78	14
14th Street/Hill Street (DTLA) MU (235 Apts, 5 KSF Retail, 4 KSF Restaurant)	1340 South Hill Street	0.9	Varies	Varies	1,755	114	11	103	138	108	30
Mixed-Use (32 KSF Shopping Center, 65 KSF Office, 4 KSF Quality Restaurant)	755 South Los Angeles Street	0.9	Varies	Varies	2,482	167	110	57	205	105	100
Mixed-Use (475 Apts, 32 KSF Office, 17 KSF Retail and 31 KSF Other)	668 South Alameda Street	0.8	Varies	Varies	4,002	289	107	182	361	216	145
Apartments with 12 KSF Retail	930 East East 6th Street	0.9	Varies	Varies	1,074	96	17	79	102	70	32
Olympic & Hill Mixed-Use	1030 South Hill Street	1.0	Varies	Varies	3,392	242	49	193	285	181	104
Apartments	656 South Stanford Avenue	0.8	82	D.U.	1,463	42	8	34	51	33	18
San Pedro Tower (Affordable Housing) Plus Small Commercial	600 South San Pedro Street	0.9	303	D.U.	636	63	38	25	67	30	37
1024 Mateo Mixed-Use (104 Apts, 102 KSF Office, 16 KSF Restaurant, 10 KSF Other)	1024 South Mateo Street	1.0	Varies	Varies	2,095	223	144	79	205	82	123
SPR Industrial Park	1000 South Mateo Street	1.0	95	KSF	426	49	40	9	49	10	39
Hillcrest Mixed-use	1745 East 7th Street	0.9	6	KSF	635	35	10	25	57	34	23
Municipal Solid Waste Facility	2001 East Washington Boulevard	1.0	187	KSF	3,578	-9	-27	18	-10	8	-18
Southern California Flower Market Project (53 KSF Office, 323 Apartments and small retail)	755 South Wall Street	0.9	Varies	Varies	2,499	191	1112	79	305	164	141
6th & Alameda Mixed-use (1,736 Apartments, 316 KSF Warehouse, 253 KSF Office, 82 KSF Retail)	1206 East 6th Street	0.9	Varies	Varies	14,258	1,022	437	585	1,352	710	642
Weingart Projects (Affordable Housing)	554 South San Pedro Street	1.0	676	D.U.	197	153	33	120	320	229	91
Hotel	124 East Olympic Boulevard	0.8	188	Rooms	1,334	98	53	45	91	58	33
Hotel	1138 South Broadway	0.9	138	Rooms	664	42	20	25	47	22	25
Washington Boulevard Mixed-use (111 Affordable Apts, 7 KSF Retail)	928 South Broadway	1.0	111	D.U.	370	45	18	27	31	16	16
<b>TOTAL RELATED PROJECT TRIPS</b>					<b>92,256</b>	<b>6,152</b>	<b>3,616</b>	<b>3,540</b>	<b>8,335</b>	<b>4,451</b>	<b>3,873</b>

**ATTACHMENT A**  
**AREA/CUMULATIVE PROJECT LOCATIONS**



## RESUMES

### BRIAN MARCHETTI, AICP

#### SENIOR TRANSPORTATION PLANNER

Mr. Marchetti is a Senior Transportation Planner at KOA, managing traffic impact, access and pedestrian circulation, parking, and transit planning studies. He has 23 years of experience in the industry. He has extensive experience with traffic impact analysis and active transportation studies, with coordination on project CEQA documents, and with on-call planning services for local cities. Mr. Marchetti has produced studies for environmental documentation on multiple projects, ranging from large commercial centers, mixed-use development projects, residential tract developments, public utilities projects, public facility and park projects, institutional and school facility traffic impact and pedestrian access projects, to transit and station interface projects. He is a Member of the American Institute of Certified Planners (AICP), #016504.

#### RELEVANT EXPERIENCE

##### **On-Call Engineering & Planning Services, Glendale, CA**

KOA is providing traffic engineering and transportation planning services to the City of Glendale that include review of traffic impact studies, site access and circulation design reviews, pedestrian circulation studies, parking studies, and transportation modeling analyses. Design efforts include review of site access, off-site traffic improvements, on-site parking layouts, on-site delivery truck loading zones, on-site vehicle, delivery truck and pedestrian circulation. Peer reviews of traffic studies are a particular focus of KOA's efforts on this project, and those reviews include reviews of and comparisons to city-wide and other nearby traffic studies, reviews of study scoping documents, review of applied growth, project trip generation, cumulative projects inclusion, level of service calculations accuracy, and site vehicle and pedestrian access issues. KOA provided these services through task orders issued by the City, and worked directly with City engineering staff to supplement their daily efforts.

##### **West Covina On-Call Engineering Services, West Covina, CA**

KOA is a part of the City of West Covina's engineering department preferred traffic engineering consultant list for traffic impact and parking studies. KOA coordinates directly with the City on the project scoping process during the proposal effort and submits the draft product to the City for review and comment prior to the completion of the study. Current and/or recent project include:

- West Covina Self Storage traffic impact study (424 South Lark Ellen Avenue)
- Toyota of West Covina traffic impact study
- 520 South Lark Avenue traffic impact study
- LA Fitness traffic and parking study
- West Covina Lakes Office Complex Parking Study and Design Study
- West Covina Orange Medical Plaza traffic study
- 1700 West, West Covina Parkway traffic study



#### EDUCATION

Bachelor of Science, Urban & Regional Planning, California State Polytechnic University, Pomona

#### REGISTRATIONS

American Institute of Certified Planners, #016504

#### PROFESSIONAL AFFILIATIONS

American Planning Association, Member

Southern California Planning Congress, Vice President of Communications

Los Angeles County Regional Planning History Association



### **West Hollywood Avenues Streetscape TIS, West Hollywood, CA**

Project Manager. KOA assisted the design process for this project by providing input on the probable effects of proposed streetscape elements on traffic flow, parking availability, and area valet operations. KOA used traffic volumes from recent traffic studies, the General Plan, and focused collection of new data, to analyze traffic conditions without and with potential project-related changes at major intersection approaches. KOA provided recommendations on general design issues that could negatively affect traffic without commensurate benefits to bicyclists or pedestrians. KOA was present at design charrettes and meetings with the project advisory group. KOA reviewed proposed sidewalk extension and raised median locations related to the project, to determine potential impacts to major driveway access, pedestrian crossing patterns, and turning movement patterns. A thorough traffic engineering assessment was conducted by KOA to illustrate the trade-offs associated with different alternatives on city streets in terms of traffic delay, alternate mode accommodation and safety. The final report included discussion on project options and differences in roadway operations with related roadway reconfigurations.

### **San Gabriel 400-420 West Valley Boulevard TIS, San Gabriel, CA**

Principal-In-Charge. KOA prepared a traffic impact study for the proposed mixed-use project at 400-420 West Valley Boulevard, in the City of San Gabriel. KOA produced previous traffic impact study reports for various land use proposals for the same property. The new proposed project was to be larger, with approximately 20,000 more square feet of commercial area, and approximately 70 more residential units. The project site would include north and south access points, with one of those locations providing direct access into a residential neighborhood. A neighborhood impact analysis of three roadway segment locations was included in the analysis.

### **El Segundo Smoky Hollow Specific Plan Traffic/Parking Study**

Principal-In-Charge. KOA provided a traffic/circulation and parking analysis for this Specific Plan Update. The goal was to assist in promoting a new development within the plan area, focusing on high-tech, entertainment and business incubator industries and related support services. This area is transitioning away from the traditional light industrial uses that historically served the local aerospace and oil refinery industries. The City's overall goal for the area, however, is to create a unique mixed-use office/industrial district. KOA conducted a traffic analysis of constraints and subsequent impacts of opportunity sites and/or land use changes, and conducted a parking study to identify the general availability on-street parking and its configurations and regulations. The study examined pedestrian walking routes, transit access via an existing City shuttle service that links corporate areas to the downtown area, and linkages to the existing and future bicycle facility network. KOA made recommendations for improvements to these routes and linkages. An analysis of the downgrading of a Secondary Arterial classification to a commercial collector classification was included in the effort.

### **LA Street Civic Building EIR / Parker Center Site**

Project Manager. The City of Los Angeles proposed to redevelop the Parker Center site, which was the former location of the Los Angeles Police Department Headquarters Building. The City needed architectural conceptual designs and an environmental impact report prepared for three potential project alternatives, which included adaptive re-use of the existing building, partial demolition and renovation of the existing building, and demolition of the existing building then replacement with a new one-million square-foot building. KOA's scope of work for this project included preparation of the needed traffic study for incorporation into the EIR document. KOA's traffic impact analysis covered an expansive area of downtown Los Angeles for each of the proposed project alternatives.

### **East Los Angeles Specific Plan, Los Angeles, CA**

Project Manager. KOA conducted the traffic and parking analysis for the proposed East Los Angeles Specific Plan, encompassing all properties located within one-half mile radii of the four Metro Gold Line stations, and other targeted parcels between the boundaries of Cesar Chavez Avenue, Indiana Avenue, Whittier Boulevard, and Margaret Avenue. The environmental documentation was to be a program document, identifying potential impacts for buildout of the specific plan area, and the overall cumulative impacts of Specific Plan and area development. The traffic study focus on potential impacts within and adjacent to the proposed mixed-use corridors and related land use intensification, calculation of increased trip generation and related reductions for shared uses, pass-by trips, and transit use, and examination of potential parking demand and recommended parking requirements.

**ATTACHMENT D - HISTORIC REVIEW INFORMATION**

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**Kaplan Chen Kaplan**  
Architects & Planners  
2526 Eighteenth Street  
Santa Monica CA 90405

October 11, 2018

To: Ms. Wendy Lockwood  
Sirius Environmental

From: David Kaplan  
Kaplan Chen Kaplan

Re: 1426 Paloma Street, Los Angeles (APN 5132-022-036)  
Historic Impacts Evaluation Review

Kaplan Chen Kaplan has been asked by the County of Los Angeles to review the potential for the proposed renovation for a homeless shelter at 1426 Paloma Street to impact historic resources. The property with addresses from 1416 to 1426 Paloma Street consists of 7 parcels tied together and identified by the Los Angeles County Assessor as 1420 Paloma Street. The existing building occupies the 6 southerly parcels and the proposed project occupies the northern half of the building with an interior demising wall running the length of the building. The seventh parcel to the north is an open space used for parking.

The property at 1420 Paloma Street in the City of Los Angeles is not listed and does not meet the criteria to be eligible for listing as a national, state or local historic resource. SurveyLA, Historic Resources Survey Report for the Central City Community Plan Area 2016 by the City of Los Angeles Office of Historic Resources did not identify the property as an individual resource or as a contributor to a Historic District. The proposed project will not cause a substantial adverse impact in the significance of any historic resource per section 15300.2 (f) of the State CEQA guidelines.

#### Description

The structure at 1416 - 1426 Paloma Street is an approximately twenty-foot-tall one-story concrete warehouse building with mezzanine area. The building at 1420 Paloma Street was recently used by a women's clothing distributor. According to

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Facsimile 310.452.1494

the Los Angeles County Assessor, the large industrial building located in the central city area of Los Angeles was constructed in 1965. Review of City Permits shows only modifications to the mezzanine since that time. The building covers 6 parcels and is setback from Paloma Street to allow for truck space at loading docks. There is an open paved area to the northwest on a seventh parcel. There is a single door into that side of the building. Otherwise the north side is blank. The façade facing Paloma has large openings with roll down doors for use as a series of loading docks. A central portion of the building is slightly recessed for lower clearance trucks. There is a pedestrian ramp from Paloma Street that leads up to the northeast corner of the building and also a ramp from the corner of Paloma Street and where there may be company offices. The long street facades along 14th Place on the south and Essex Street on the west are blank with no openings.

### Proposed Project

The project consists of renovation, upgrade, operation and maintenance activities associated with reuse of the existing warehouse located at 1426 Paloma Street in the City of Los Angeles, County of Los Angeles. The warehouse space would be rehabilitated for use as a homeless shelter with 119 cubicles/beds (96 cubicles for men, 23 cubicles for women with the potential for 4 additional cubicles). Interior improvements include new walls/room partitions to create sleeping cubicles, offices, bathrooms and a warming kitchen (with microwaves, warming ovens, refrigerators, dish washing equipment, etc.). The project includes new plumbing for the men's and women's bathrooms, upgrades to meet ADA requirements and interior signage. Exterior improvements would include additional heating ventilation and air conditioning (HVAC) units on the roof and associated duct work as well as lighting, signage and paint (including a mural on the side of the building). Two loading dock door openings will be infilled. In addition, a new door would be included in the front of the building as well as a new door on the north façade with access to the exterior patio. The exterior patio would include potted plants and outdoor furniture.

### Previous Surveys

The property is located in the City of Los Angeles Central City Community Plan Area. The overall area was reviewed in the SurveyLA Historic Resources Survey Report for the Central City Community Plan Area completed in 2016. The property was not identified as an individual resource or as part of a Historic District or multi-property resource. The SurveyLA report includes historic contexts by which to review the significance of the property including Industrial Development from 1850 – 1980. The southeast area of the Central City Community Plan is identified as the Fashion District, however the easternmost boundary of



the area specifically defined as the Garment Industry Planning District is several blocks to the west at San Pedro Avenue.. The Coca-Cola Bottling Company and former Los Angeles Fire Department Engine No 30, both identified as individual historic resources, are the closest identified historic resources and are located two blocks to the west and north on Central Avenue.

## Evaluation

The property at 1416 – 1426 Paloma Street does not meet any of the National, State, City or Los Angeles County criteria for a historic resource. The criteria and level of significance vary slightly between these jurisdictions but all refer to significant quality of design, relation to important persons, uniqueness, association with important events or as an important visual feature in a neighborhood. The County of Los Angeles has similar criteria identified in the Los Angeles County Preservation Ordinance. (Ord. 2015-0033 § 3, 2015.)

The warehouse building is an undistinguished building with no special architectural features. The building serves as a storage for goods in transit and the main features are loading dock doors and long blank walls, regular features of similar industrial type warehouse buildings. There is no site work of special significance. The building permit from 1965 does not list an architect or designer. There are also no publications regarding the listed engineer, David T. Witherly. Ownership is a company name, not an individual. From online research, the company name is no longer active in the Los Angeles area, and references were only found for a real estate company with a similar name in San Diego. This building is also not a unique or last example of a type as there are numerous warehouses of similar construction in the area.

## Potential Impacts to Historic Resources.

There are no impacts to historic resources on this property from the proposed homeless shelter project. The property at 1416 – 1426 Paloma Street does not appear to be a significant historic resource therefore changes to the building may occur without impacts to a historic resource. There are also no adjacent historic resources that would be affected.

## Conclusion

The property at 1420 (1416 – 1426) Paloma Street does not qualify as a national, state or local historic resource. The building is not the work of a master architect and has no architectural significance. There is no evidence that any historic persons or events are



associated with the building. The building is also not considered significant relative to the nearby Fashion and Garment District identified by SurveyLA.

The property at 1420 (1416 – 1426) Paloma Street does not meet any of the criteria for historic significance. The building is not eligible for inclusion on the National Register of Historic Places, the California Register of Historical Resources, as a County of Los Angeles Landmark or as City of Los Angeles Historic-Cultural Monument or District. There are no identified adjacent or nearby historic resources. Therefore, the proposed project does not have the potential to result in a substantial adverse change in the significance of any historical resource.



**Kaplan Chen Kaplan**

Architects & Planners

## Bibliography

Cabanillas, Alejandro, Drawings for 426 Paloma Street, July 2018

City of Los Angeles Online Building Permits

Los Angeles County Assessor records

Los Angeles County Preservation Ordinance. (Ord. 2015-0033 § 3, 2015.)

SurveyLA, Historic Resources Survey Report for the Central City Community Plan Area, 2016  
[http://preservation.lacity.org/sites/default/files/SurveyLACentralCity\\_SurveyReport.pdf](http://preservation.lacity.org/sites/default/files/SurveyLACentralCity_SurveyReport.pdf)

SurveyLA, Central City Individual Resources, 2016  
[http://preservation.lacity.org/sites/default/files/CentralCity\\_IndividualResources.pdf](http://preservation.lacity.org/sites/default/files/CentralCity_IndividualResources.pdf)

SurveyLA Central City Historic Districts, Planning Districts and Multi-Property Resources  
2016  
[http://preservation.lacity.org/sites/default/files/CentralCity\\_HistoricDistricts.pdf](http://preservation.lacity.org/sites/default/files/CentralCity_HistoricDistricts.pdf)

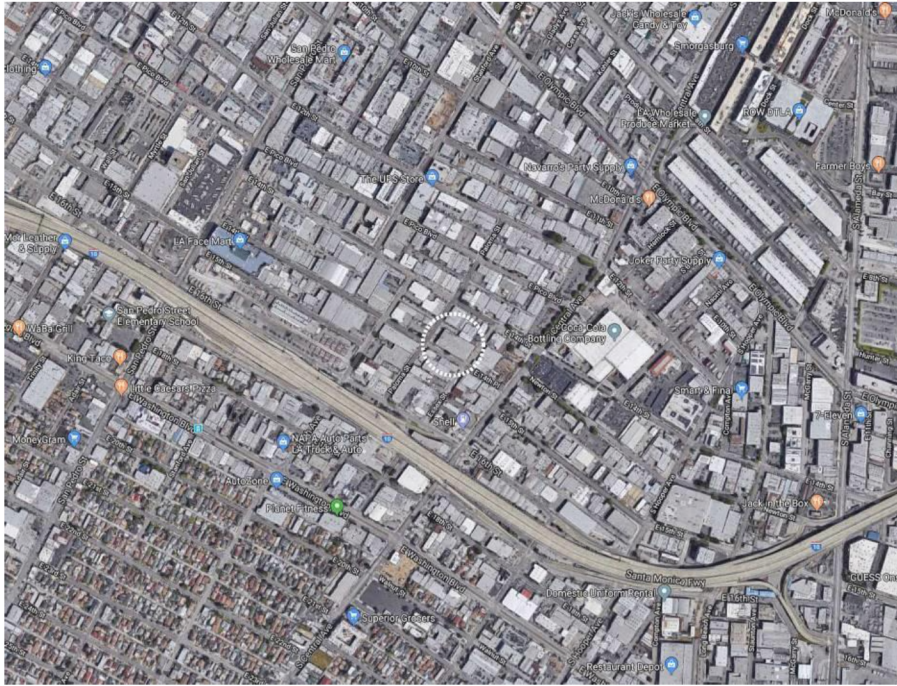
ZIMAS - Zoning Information and Map Access System (ZIMAS) for the City of Los Angeles.  
Accessed October 5, 2018



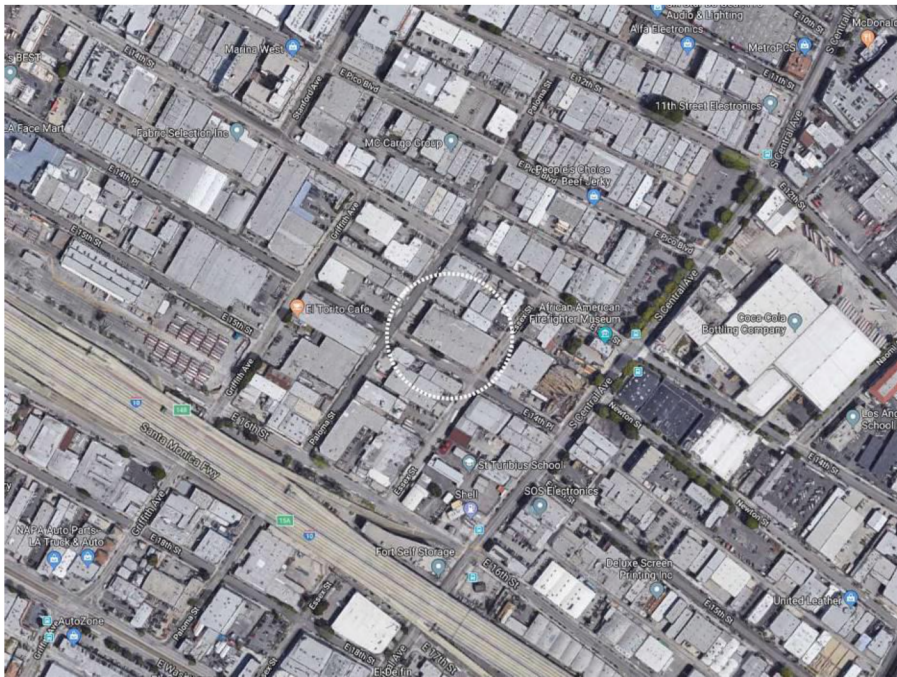
**Kaplan Chen Kaplan**

Architects & Planners

Illustrations



Aerial view of southeast portion of Central City Los Angeles



Aerial view of site with adjacent I-10 freeway. The property is located within an industrial area of lower scale buildings.

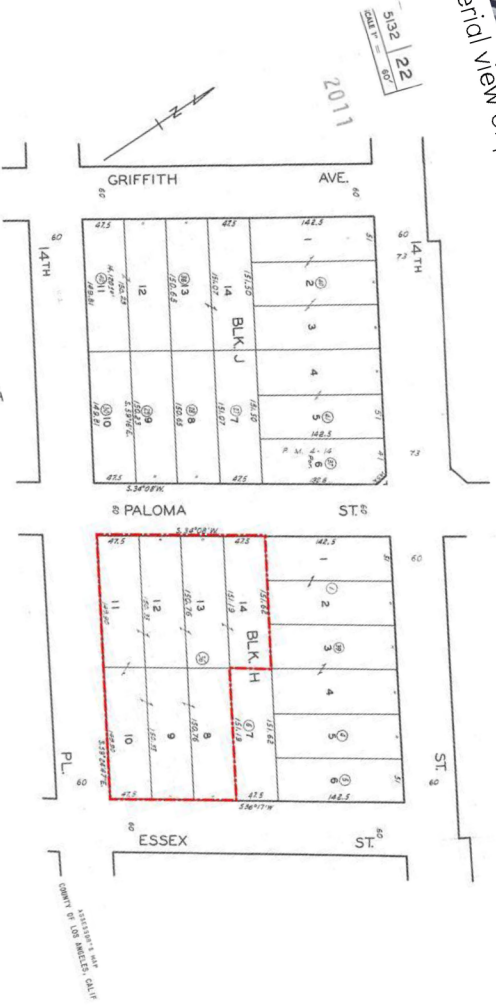


**Kaplan Chen Kaplan**

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Aerial view of property, the second block west of Central Avenue



Los Angeles County Assessor Map



View of Paloma Street elevation. The projects is located in the northerly (left) half of the building. Several of the loading dock openings will be modified and filled in for the project.



1426 Paloma Street from west. The property includes the open space on the north that also provides access to the building. There is a ramp up from the sidewalk to an entry door.





1426 Paloma Street from southwest corner at 14th Place. The building is setback from Paloma Street for loading dock access. A pedestrian ramp leads up to the office area.



1426 Paloma Street from southeast corner at Essex Street. The walls are blank and windowless.



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1426 Paloma Street from north east, view looking west along Essex Street



**Kaplan Chen Kaplan**

Architects & Planners

1426 Paloma Street, Los Angeles - Historic Impacts Evaluation Review  
 October 11, 2018

Attachments: City of Los Angeles Building Permits and Certificate of Occupancy

1 APPLICATION FOR INSPECTION OF NEW BUILDING AND FOR CERTIFICATE OF OCCUPANCY										D&S B-1—Rev. 3-64		
CITY OF LOS ANGELES										DEPT. OF BUILDING AND SAFETY		
<b>INSTRUCTIONS:</b> 1. Applicant to Complete Numbered Items Only. 2. Plot Plan Required on Back of Original.										CENSUS TRACT		
1. LEGAL DESC.	LOT	BLK.	TRACT	8 to 14 H Walnut Grove Tract						DIST. MAP	120-209	
2. PURPOSE OF BUILDING	122 Warehouse									ZONE	M-2-4	
3. JOB ADDRESS	1416 Paloma St.									FIRE DIST.	71	
4. BETWEEN CROSS STREETS	14th Place AND 14th St.									INSIDE COR. LOT	KEY 744 Key. COR.	
5. OWNER'S NAME	Pacific Coast Commercial Inc.			PHONE	624-3982					LOT SIZE	11,000	
6. OWNER'S ADDRESS	744 San Julian St			LOS ANGELES	14					REAR ALLEY	OK	
7. ARCHITECT OR DESIGNER										STATE LICENSE NO.		
8. ENGINEER	David T. Witherly			STATE LICENSE NO.	No 41981					SIDE ALLEY	OK	
9. CONTRACTOR	Not Selected									AFFIDAVITS	Isaac W. Withers	
10. SIZE OF NEW BLDG.	STORIES	HEIGHT	NO. OF EXISTING BUILDINGS ON LOT AND USE									
140,542 sq. ft.	1	29	none									
11. MATERIAL OF CONSTRUCTION	EXT. WALLS	ROOF	FLOOR									
	PREC. CONC.	WOOD	CONC.									
12. JOB ADDRESS	1416 Paloma St.									DISTRICT OFFICE	LA	
13. VALUATION TO INCLUDE ALL FIXED EQUIPMENT REQUIRED TO OPERATE AND USE PROPOSED BUILDING.	\$100,000 - 170,000									GRADING		
1										CRIT. SOIL		
PURPOSE OF BUILDING										VALUATION APPROVED		
Warehouse										HIGHWAY DED.		
TYPE	GROUP	STORIES	PLANS CHECKED							FLOOD		
11-A	G-1	1	Isaac W. Withers							CENS		
BLDG. AREA	MAX. OCC.	TOTAL	PLANS APPROVED							ZONED BY		
36,000	129		Isaac W. Withers							XG8C 14X		
DWELL. UNITS	GUEST ROOMS	SPACES REQ'D	PROVIDED	APPLICATION APPROVED				FILE WITH				
		25		Isaac W. Withers				Isaac W. Withers				
SPRINKLERS REQ'D SPECIFIED	CONT. INSP.		LIC. FAB.								INSPECTOR	
P.C. No.	T 3197											
P.C.	S.P.C.	G.P.I.	B.P.	I.P.	O.S.	C/O	TYPIST					
160.55	57.15		338				v2					
APR-12-65	17921 E	X-2 CK		160.55								
JUN-21-65	31902 E	X-2 CK		59.15								
JUN-21-65	31903 E	X-2 CK		338.00								

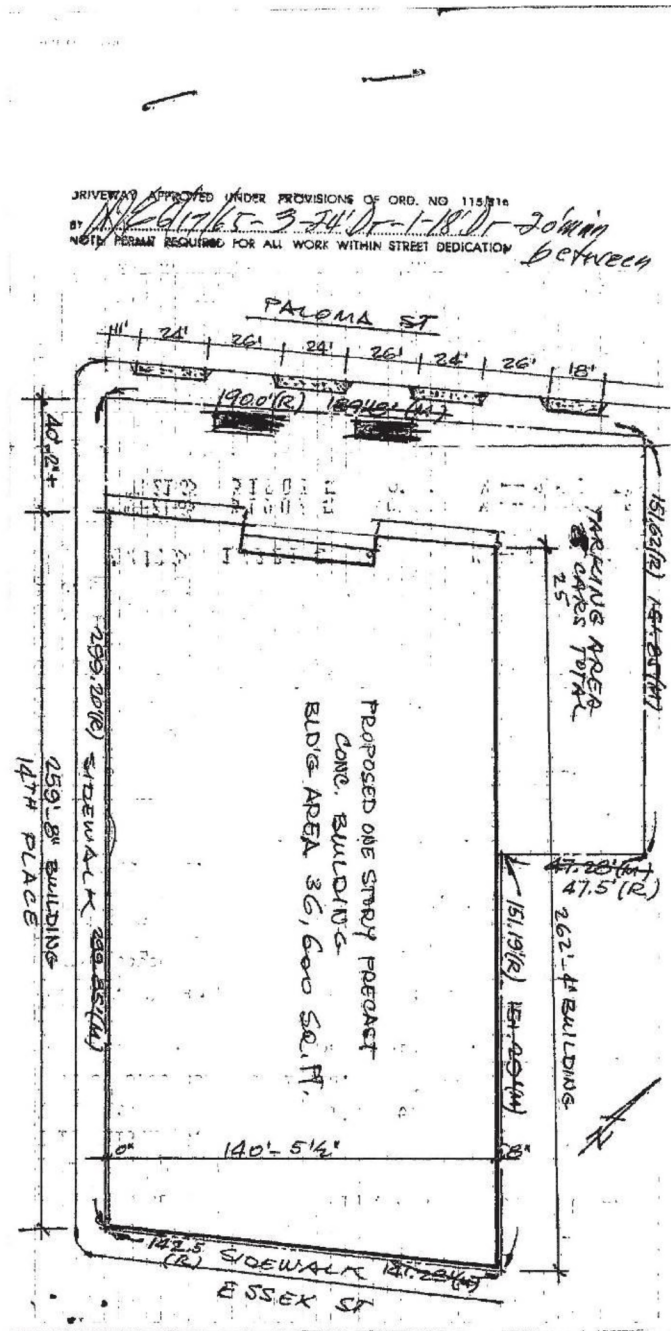
  

STATEMENT OF RESPONSIBILITY		
I certify that in doing the work authorized hereby I will not employ any person in violation of the Labor Code of the State of California relating to workmen's compensation insurance.		
"This permit is an application for inspection, the issuance of which is not an approval or an authorization of the work specified herein. This permit does not authorize or permit, nor shall it be construed as authorizing or permitting the violation or failure to comply with any applicable law. Neither the City of Los Angeles, nor any board, department, officer or employee thereof make any warranty or shall be responsible for the performance or results of any work described herein, or the condition of the property or soil upon which such work is performed." (See Sec. 91.0202 L.A.M.C.)		
Signed	Tommy Law (Owner or Agent)	
Bureau of Engineering	ADDRESS APPROVED	L. Dalton
	SEWERS AVAILABLE	8 Regan 4/9/65
	NOT AVAILABLE	
	DRIVEWAY APPROVED	
	HIGHWAY DEDICATION REQUIRED	COMPLETED
	FLOOD CLEARANCE APPROVED	
Conservation	APPROVED FOR ISSUE	FILE #
Plumbing	PRIVATE SEWAGE DISPOSAL SYSTEM APPROVED	
Planning	APPROVED UNDER CASE #	
Fire	APPROVED (TITLE 39) (L.A.M.C.-5700)	D.R. Berglund 6/19/65
Traffic	APPROVED FOR	

Permit for new construction of a warehouse in 1965. No architect is identified'



Kaplan Chen Kaplan  
 Architects & Planners



Site map on back of building permit, 1965



1426 Paloma Street, Los Angeles - Historic Impacts Evaluation Review  
 October 11, 2018

3 APPLICATION TO ALTER - REPAIR - DEMOLISH AND FOR CERTIFICATE OF OCCUPANCY						BAS Form B-3	
CITY OF LOS ANGELES				DEPT. OF BUILDING AND SAFETY			
INSTRUCTIONS: 1. Applicant to Complete Numbered Items Only 2. Plat Plan Required on Back of Original.							
1. LEGAL DESCR.	LOT 8 to 14	BLK. H	TRACT Walnut Grove Tr.	CENSUS TRACT 120-209			
2. PRESENT USE OF BUILDING	22, warehouse		NEW USE OF BUILDING 22, same	ZONE M-2-4			
3. ADDRESS	1416 Paloma St.						FIRE DISTRICT 180/60/60
4. BETWEEN CROSS STREETS	14th Place		AND 14th St.	INSIDE (COR. LOT) REV. COR.			
5. OWNER'S NAME	Pacific Coast Commercial Inc		PHONE 6243982	LOT SIZE irr over			
6. OWNER'S ADDRESS	744 San Julian St.		P.O. BOX Los Angeles 14				
7. ARCHITECT OR DESIGNER			STATE LICENSE NO. PHONE	REAR ALLEY /			
8. ENGINEER	David T. Witherly		NO 41931	SIDE ALLEY /			
9. CONTRACTOR	not selected		STATE LICENSE NO. PHONE	AFFIDAVITS			
10. SIZE OF EXISTING BLDG.	140'5 1/2"	x 262'4"	STORIES 1	HEIGHT 29'	NO. OF EXISTING BUILDINGS ON LOT AND USE none		
11. MATERIAL OF CONSTRUCTION	EXT. WALLS prec. conc	ROOF wood	FLOOR conc				
12. JOB ADDRESS	3 1416 Paloma St.						DISTRICT OFFICE LA
13. VALUATION: TO INCLUDE ALL FIXED EQUIPMENT REQUIRED TO OPERATE AND USE PROPOSED BUILDING.	\$ 101						GRADING /
14. NEW WORK: (Describe)	revision of plans (REVISE MEZZ FLOOR SUPPORT AT WEST WALL & PLYWOOD DIAPHR)						CRTY. SOIL /
NEW USE OF BUILDING			SIZE OF ADDITION	STORIES	HEIGHT	FLOOD /	
TYPE	GROUP	SPRINKLERS REQ'D SPECIFIED	VALUATION APPROVED	CONS. X 686141x			
BLDG. AREA	MAX. OCC.	TOTAL	PLANS CHECKED	ZONED BY E Scott			
DWELL UNITS	GUEST ROOMS	SPACES PARKING	REV'D PROVIDED	PLANS APPROVED	FILE WITH IA 07869/6		
P.C. No.			CONT. INSP.	APPLICATION APPROVED	INSPECTOR		
P.C.	1.30	S.P.C.	G.P.I.	B.P. 2.00	I.P.	O.S.	C/O
TYPIST							
SEP-23-65 50982 E • 4782 X - 2 CS 1.30							
SEP-23-65 50983 E • 4782 X - 1 CS 2.00							

**STATEMENT OF RESPONSIBILITY**

I certify that in doing the work authorized hereby I will not employ any person in violation of the Labor Code of the State of California relating to workmen's compensation insurance.

"This permit is an application for inspection, the issuance of which is not an approval or an authorization of the work specified herein. This permit does not authorize or permit, nor shall it be construed as authorizing or permitting the violation or failure to comply with any applicable law. Neither the City of Los Angeles, nor any board, department, officer or employee thereof make any warranty or shall be responsible for the performance or results of any work described herein, or the condition of the property or soil upon which such work is performed." (See Sec. 91.0202 L.A.M.C.)

Signed: Felimon Contreras by E. Donnell

	Name	Date
Bureau of Engineering	Dalton Egan	
Conservation		
Plumbing		
Planning		
Fire		
Traffic		


Permit for revisions for mezzanine, 1965



Kaplan Chen Kaplan  
 Architects & Planners

1426 Paloma Street, Los Angeles - Historic Impacts Evaluation Review  
October 11, 2018

Address of 1416 Paloma Street  
City of Los Angeles  
CERTIFICATE OF OCCUPANCY



**NOTE: Any change of use or occupancy must be approved by the Department of Building and Safety.**  
This certifies that, so far as ascertained by or made known to the undersigned, the building at the above address complies with the applicable requirements of the Municipal Code, as follows: Ch. 9, Arts. 1, 3, 4, and 5; and with applicable requirements of State Housing Act—for following occupancies:

Issued 1-26-66 Permit No. and Year LA97869/65

1 story, type IIIA, 140'5½" x 262'4"  
warehouse and office. 25 required  
parking spaces provided. G-1 occupancy

Owner Pacific Coast Comm. Inc.  
Owner's Address 744 San Julian Street  
Los Angeles, California

By T. LUCAS elh

Form B-95b—2M Sht. Sets—8-65 (C-10)

ARCHITECT'S OR ENGINEERS  
CERTIFICATE OF COMPLIANCE

CITY OF LOS ANGELES  
DEPT. OF BLDG. & SAFETY

Address of Building 1416 Paloma St  
Permit No. 97869 Year 65

Date 1-4-66

TO THE SUPERINTENDENT OF BUILDING:

I hereby certify:

I am responsible for the structural design of this building;

I, where required as a condition upon the use of higher stresses, employed a Licensed Deputy Building Inspector to continuously inspect that portion of the construction utilizing such higher stresses. The deputy inspector was responsible to me and I have reviewed and approved his reports;

The construction of the portions of this structure utilizing the higher stresses is in conformity with the approved plans and the Building Code.

B&S Form No. 3-57 8-28

David Arthur  
Architect or Engineer

Certificate of Occupancy, 1966



Kaplan Chen Kaplan  
Architects & Planners

**Los Angeles County Preservation Ordinance.** (Ord. 2015-0033 § 3, 2015.)

22.52.3060 - Criteria for Designation of Landmarks and Historic Districts.

- A. A structure, site, object, tree, landscape, or natural land feature may be designated as a landmark if it is 50 years of age or older and satisfies one or more of the following criteria:
1. It is associated with events that have made a significant contribution to the broad patterns of the history of the nation, State, County, or community in which it is located;
  2. It is associated with the lives of persons who are significant in the history of the nation, State, County, or community in which it is located;
  3. It embodies the distinctive characteristics of a type, architectural style, period, or method of construction, or represents the work of an architect, designer, engineer, or builder whose work is of significance to the nation, State, County, or community in which it is located; or possesses artistic values of significance to the nation, State, County, or community in which it is located;
  4. It has yielded, or may be likely to yield, significant and important information regarding the prehistory or history of the nation, State, County, or community in which it is located;
  5. It is listed, or has been formally determined eligible by the United States National Park Service for listing, in the National Register of Historic Places, or is listed, or has been formally determined eligible by the State Historical Resources Commission for listing, on the California Register of Historical Resources;
  6. If it is a tree, it is one of the largest or oldest trees of the species located in the County; or
  7. If it is a tree, landscape, or other natural land feature, it has historical significance due to an association with an historic event, person, site, street, or structure, or because it is a defining or significant outstanding feature of a neighborhood.
- B. Property less than 50 years of age may be designated as a landmark if it meets one or more of the criteria set forth in subsection A of this Section, and exhibits exceptional importance.
- C. The interior space of a property, or other space held open to the general public, including but not limited to a lobby, may be designated as a landmark or included in the landmark designation of a property if the space qualifies for designation as a landmark under subsections A or B of this Section.
- D. Historic districts. A geographic area, including a noncontiguous grouping of related properties, may be designated as an historic district if all of the following requirements are met:
1. More than 50 percent of owners in the proposed district consent to the designation;
  2. The proposed district satisfies one or more of the criteria set forth in subsections A.1 through A.5, inclusive, of this Section; and
  3. The proposed district exhibits either a concentration of historic, scenic, or sites containing common character-defining features, which contribute to each other and are unified aesthetically by plan, physical development, or architectural quality; or significant geographical patterns, associated with different eras of settlement and growth, particular transportation modes, or distinctive examples of parks or community planning.





**Kaplan Chen Kaplan**

Architects & Planners  
2526 Eighteenth Street  
Santa Monica CA 90405

**David Kaplan**  
**Principal Historic Architect**

Education

University of California, Los Angeles, School of Architecture and Urban Planning,  
Master of Architecture, 1979  
University of Pennsylvania, Philadelphia, Pennsylvania  
Bachelor of Arts in Design of the Environment, honors major, cum laude, 1975

Professional Experience

Registered Architect, State of California C12875, LEED AP  
NPS Qualifications: Historic Architecture, CHRIS - Historic Architect & Architectural History  
  
Kaplan Chen Kaplan, Santa Monica, California, Principal, 1987 to present  
Knox Mellon and Associates, Riverside, California, Consultant, 1994 - 2000  
Moore Ruble Yudell Architects and Planners, Santa Monica, Associate, 1986 - 1993  
Bobrow Thomas Associates, Los Angeles, California, Project Architect, 1984 - 1986  
Welton Becket Associates, Santa Monica, California, Designer, 1981 - 1983  
Urban Innovations Group, Los Angeles, California, Designer, 1977 - 1980

Selected Projects

Greystone Mansion (NRHP), Comm'l. Kitchen, HVAC & ADA, City of Beverly Hills, 2010-2017  
Fairfax HS Arts Gallery Project, Historic Resource Impacts Evaluation, 2016  
Fire Station 15 Relocation and Adaptive Re-Use, USC School of Cinema Arts, 2014-2016  
Johnson Hall - McKinnon Center Global Affairs, Occidental College, Historic Architect 2014  
Biscuit Lofts (Nabisco Building) Landmark & Mills Act, Maintenance Plan 2007-2017  
El Pueblo Siqueiros Mural & Interpretive Center, Historic Architect. 2010-2013  
Searles Valley Guest House Museum & Trona Railway Museum - Condition Assessment 2008  
Chinese American Museum, Condition Assessment Report, Los Angeles, 2005  
LAUSD Armory Building/Annenberg Science Center, Historic Architect, 2000-2005  
LAUSD Ambassador Hotel Site, Historic Documentation, Mitigation Monitor, 2006-2009  
Los Angeles City Hall Seismic Rehabilitation, Historic Preservation Monitor, 1997-2001,  
and Historic Architect, Project Restore, Council Chambers & Furniture, 2001  
University of California Los Angeles (UCLA) Historic Buildings, Historic Architect, Historic  
Documentation, Construction Monitoring, Seismic Repair: Powell Library, Kerckhoff  
Hall, Royce Hall, Haines Hall, Kinsey Hall, Men's Gym, Kaufman Hall (Dance), Mira  
Hershey Hall, Geffen Playhouse, Chancellor's Residence, Clark Library, 1995-2007  
University of Southern California, Historic Buildings, Historic Architect, Seismic Repair:  
Doheny Memorial Library, Student Union, Mudd Hall, Kerckhoff House, Cockins  
House, Town & Gown, Physical Education, Business Administration, North Science,  
Hancock Hall, and Alumni House (Relocation) 1995-2017

Awards

California Preservation Foundation, USC Historic Resources Restoration & Maintenance, 2017  
Los Angeles Conservancy, American Tropical, Presidents Award, 2013  
California Preservation Foundation, UCLA Kaufman Hall Rehabilitation, 2007  
Los Angeles Conservancy, Wallis Annenberg Bldg. for Science (Armory), Honor Award, 2006  
Los Angeles Conservancy, Geffen Playhouse Rehabilitation, Honor Award, 2006  
California Preservation Foundation, USC Doheny Library Seismic Renovation, 2002  
Governor's Award for Historic Preservation, Powell Library Ceiling Restoration, UCLA, 1997

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Facsimile 310.452.1494